DOE/EIS - 0125-F

Bonneville Power Administration

Final Environmental Impact Statement

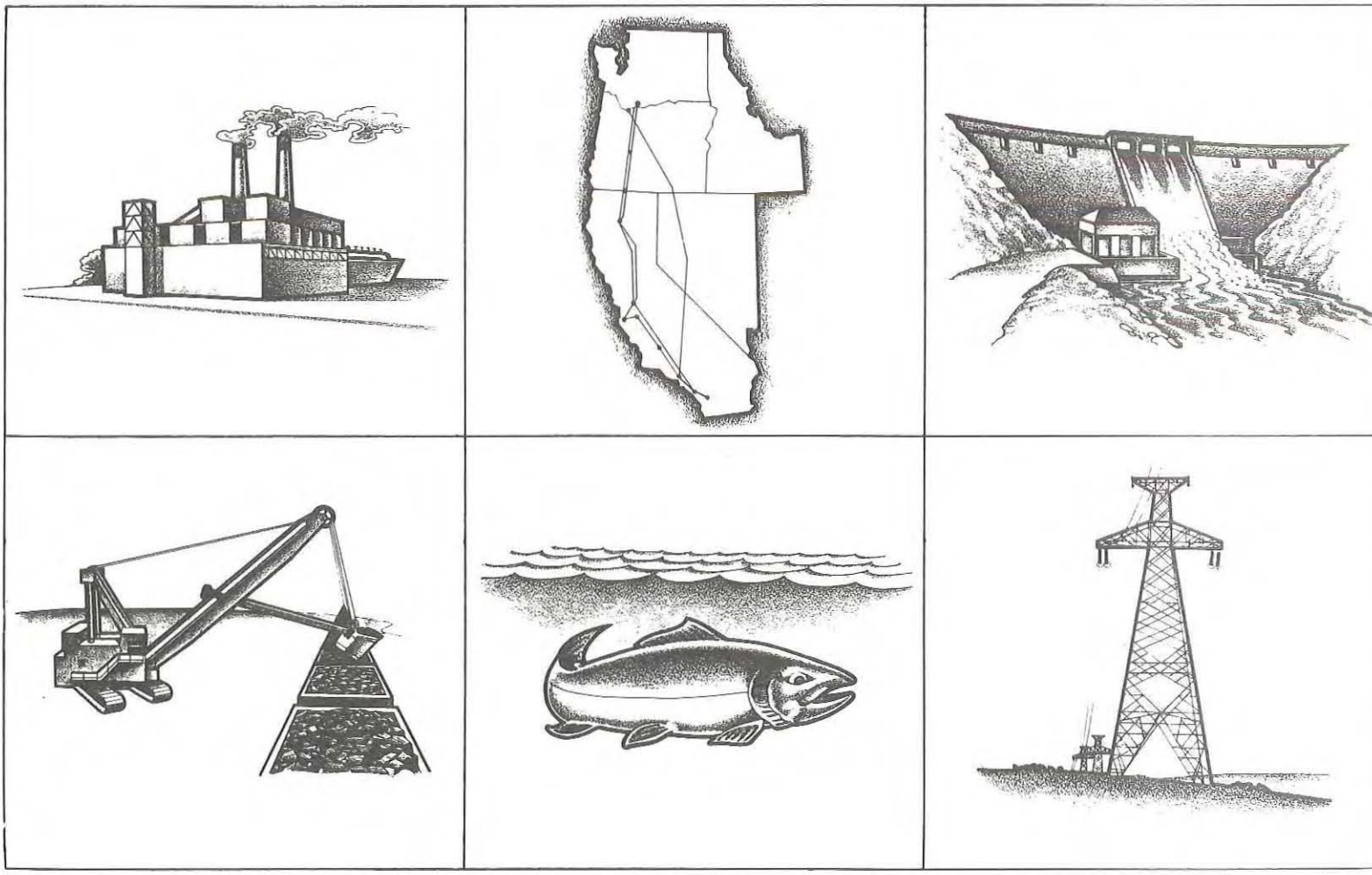
INTERTIE DEVELOPMENT AND USE

U.S. Department of Energy

April 1988

Volume 3: Comment Letters

Part 1: IDU Draft EIS
Part 2: Hydro Operations Information Paper
Part 3: Revised Intertie Access Policy



Bonneville
Power
Administration

Final Environmental
Impact Statement

INTERTIE DEVELOPMENT AND USE

U.S. Department
of Energy

Volume 3:
Comment Letters

Part 1: IDU Draft EIS
Part 2. Hydro Operations Information Paper
Part 3 Revised Intertie Access Policy

PART 1

Intertie Development and Use Draft EIS

IDU Draft EIS

Close of Comment: 1/16/87

Letter Number	Commenter/Affiliation
TIE-1-1	Sue Heath, Montana, Office of Lt. Governor
TIE-1-2	W.A. Best, R.D. Strilvie, B.C. Hydro
TIE-1-3	Robert W. Welch, Jr., Columbia Gas
TIE-1-4	Oregon State Clearinghouse
TIE-1-5	Dean Stepanek, Bureau of Land Management
TIE-1-6	Montana State Clearinghouse
TIE-1-7	California State Clearinghouse
TIE-1-8	Mel Huie, Metropolitan Service District
TIE-1-9	Ron Snyder, Kettle Falls Chamber of Commerce
TIE-1-10	R.W. Lindsey, Lincoln County, Montana
TIE-1-11	Lorraine Stark, Friends of the Greensprings
TIE-1-12	Governor Victor Atiyeh, Oregon
TIE-1-13	Al Wright, Pacific Northwest Utilities Conference Committee
TIE-1-14	Dennis E. Rohr, Mid-Columbia Public Utility Districts
TIE-1-15	Douglas W. Frank, Friends of the Greensprings
TIE-1-16	Greg Bowers, P.E., G.H. Bowers Engineering
TIE-1-17	E.W. Lubking, Public Generating Pool
TIE-1-18	Stan Reed, Engineering Design Associates/Phone Comment
TIE-1-19	John W. Keys, III, Idaho, U.S. Dept. of Interior, Bureau of Reclamation
TIE-1-20	Howard F. Easton, Basin Electric Power Coop
TIE-1-21	Elwin Bennington, Flathead Basin Commission
TIE-1-22	Gene Maudlin, PUC of Oregon
TIE-1-23	Robert P. Dalley, Utah Dept. of Health
TIE-1-24	Dolores Streeter, Oregon Executive Dept.
TIE-1-25	Chester A. Johnson, B.C. Hydro
TIE-1-26	John Brown, New Mexico State Clearinghouse
TIE-1-27	James E. Thompson, City of Tacoma
TIE-1-28	Dave D. Rachetto, Bureau of Reclamation
TIE-1-29	James W. Beck, Transmission Agency of Northern California
TIE-1-30	James W. Beck, Transmission Agency of Northern California
TIE-1-31	Michael Grainey, Oregon Review Committee
TIE-1-32	Norman C. Boberg, Turlock Irrigation District SHOULD BE REPLACED WITH #96
TIE-1-33	Michael C. Weland, Oregon Dept. of Fish and Wildlife
TIE-1-34	Barbara D. Rhodes
TIE-1-35	Adele Newton, Oregon League of Women Voters
TIE-1-36	Mark D. Kelley, Northern Plains Resource Council
TIE-1-37	Michael T. Pablo, The Confederated Salish and Kootenai Tribes of the Flathead Reservation
TIE-1-38	Marc Sullivan, Northwest Conservation Act Coalition
TIE-1-39	Andy M. Rustemeyer, Lincoln County Board of County Commissioners, Washington
TIE-1-40	Ray Foleen, Non-Generating Public Utilities
TIE-1-41	Ron Snyder, Kettle Falls Chamber of Commerce, Phone Comment
TIE-1-42	Gregory H. Bowers, G.H. Bowers Engineering
TIE-1-43	Peter G. Fairchild, California Public Utilities Commission

Letter Number	Commenter/Affiliation
TIE-1-44	Terence L. Thatcher, National Wildlife Federation
TIE-1-45	Chandler A. Swanberg, GEO Operator Corporation
TIE-1-46	Michael J. Cale, GEO Operator Corporation
TIE-1-47	David Cottingham, Nation Marine Fisheries Service and Dale R. Evans, National Oceanic and Atmospheric Administration
TIE-1-48	Norman R. Schultz, Paul Converse, Harlan H. Humiston, Central Oregon PUD
TIE-1-49	Bill J. Graham
TIE-1-50	Terry Boner, Northwest Pulp and Paper
TIE-1-51	George Miller, Committee on Interior and Insular Affairs
TIE-1-52	Charles R. Imbrecht, California Energy Commission
TIE-1-53	Channing D. Strother, Jr., City of Vernon, California
TIE-1-54	Daniel O. Flanagan, Montana Power Company
TIE-1-55	Sharon L. Nelson, Robert W. Bratton, Richard Casad, Washington Utilities and Transportation Commission
TIE-1-56	Jerry Garman, Public Generating Pool
TIE-1-57	J.W. Marshall, Idaho Power Company
TIE-1-58	Mark Crisson, Direct Service Industries, Inc.
TIE-1-59	W. Lester Bryan, Washington Water Power
TIE-1-60	James R. Fry, U.S. Army Corps of Engineers
TIE-1-61	Barbara J. Ritchie, Washington Dept. of Ecology
TIE-1-62	J. Leon Smith, Cowlitz County Public Utility District
TIE-1-63	Richard Butler, Seattle Audubon Society
TIE-1-64	John A. Charles, Oregon Environmental Council
TIE-1-65	Teresa Giacomini, The Friends of the Earth
TIE-1-66	Joseph R. Blum, State of Washington, Dept. of Fisheries Double-logged, see #69
TIE-1-67	Sharon W. Mays, San Diego Gas & Electric
TIE-1-68	Robert W. Kendall, Southern California Edison
TIE-1-69	Joseph R. Blum, State of Washington, Dept. of Fisheries
TIE-1-70	Arnold Appenay, The Shoshone-Bannock Tribes
TIE-1-71	R.G. Bailey, Puget Sound Power & Light Company
TIE-1-72	Jim Jones, Attorney General, State of Idaho
TIE-1-73	J. Calvin Simpson, California Public Utilities Commission
TIE-1-74	David J. Mahoney, Los Angeles Dept. Water & Power
TIE-1-75	Stuart K. Gardiner, Pacific Gas & Electric Company
TIE-1-76	Ralph Cavanagh, Natural Resources Defense Council
TIE-1-77	John Savage, Oregon Department of Energy
TIE-1-78	Michael S. Rossotto, Friends of the Earth
TIE-1-79	Thomas A. Lockhart, Pacific Power & Light Company
TIE-1-80	Joseph W. Nadal, Jr. Pacific Northwest Generating Company
TIE-1-81	Ed Chaney, Northwest Resource Information Center, Inc.
TIE-1-82	Garry W. Kunkel, Eugene Water & Electric Board
TIE-1-83	Larry M. Kellerman, Portland General Electric Company
TIE-1-84	John McMahan, Grant Co. PUD; Gerald L. Copp, Chelan Co. PUD; Eldon Landin, Douglas Co. PUD

IDU Draft EIS

(continued)

Letter Number	Commenter/Affiliation
TIE-1-85	Al Wright, Pacific Northwest Utilities Conference Committee
TIE-1-86	Joe D. Hall, U.S. Department of Energy
TIE-1-87	S. Timothy Wapato, Columbia River Inter-Tribal Fish Commission
TIE-1-88	Terry Mundorf, Western Public Agencies Group
TIE-1-89	Edward and Marilyn Livingston
TIE-1-90	Randall W. Hardy, Seattle City Light
TIE-1-91	Merrill S. Schultz, Intercompany Pool
TIE-1-92	R.V. Stassi, City of Glendale, California
TIE-1-93	Marcia G. Lagerloef, U.S. Environmental Protection Agency
TIE-1-94	Huston T. Carlyle, Jr., California Office of Planning and Research
TIE-1-95	Larry Calica, The Confederated Tribes of the Warms Springs Reservation
TIE-1-96	Norman C. Boberg, Turlock Irrigation District REPLACEMENT FOR #32
TIE-1-97	John H. Whalen, Mason County PUD
TIE-1-98	George and Nancy Blount
TIE-1-99	Judy A. Thomas, Sally M. Gibson, League of Women Voters of Idaho
TIE-1-100	John P. O'Banion, Sacramento Municipal Utility District
TIE-1-101	REMOVED FROM LOG: Replacement pages for TIE-1-72
TIE-1-102	J.W. Marshall, Idaho Power Company
TIE-1-103	Bruce Blanchard, U.S. Department of the Interior
TIE-1-104	Al Williams, Washington State Senate
TIE-1-105	David Geist, Upper Columbia United Tribes - Fisheries Research Center
TIE-1-106	Steven Siegel, Metropolitan Service District
TIE-1-107	Ken Canon, Industrial Customers of Northwest Utilities
TIE-1-108	James E. Brown, State of Oregon, Forestry Department
TIE-1-109	Donald B. Gregg, Montana Power Company
TIE-1-110	Robert Duncan, Northwest Power Planning Council
TIE-1-111	Paul Schmechel, Montana Power Company
TIE-1-112	Michael S. Rossotto, Friends of the Earth
TIE-1-113	G.R. Garman, Public Generating Pool
TIE-1-114	Al Wright, Pacific Northwest Utilities Conference Committee
TIE-1-115	Jim Jones, Attorney General, State of Idaho
TIE-1-116	Einar Wold, National Oceanic and Atmospheric Administration

October 30, 1986

Mr. Anthony R. Morrell
Environmental Manager
Bonneville Power Administration
P.O. Box 3621-SJ
Portland, OR 97208

RE: Intertie Development and Use (IDU) Draft Environmental Impact Statement (DEIS) and Proposed Long-Term Intertie Access Policy
Montana State IGR Clearinghouse File No. MT861024-182-X

Dear Mr. Morrell:

The above-captioned documents have been received in the Clearinghouse. In order to provide notification to parties that may be interested in and/or comment on the documents, they will be listed in the next Intergovernmental Review Bulletin issued

Any inquiries regarding the documents will be directed to you. Written comments shall be addressed to Ms. Donna Geiger, Public Involvement Manager as requested. Please provide copies of the enclosed suggested review form to potential reviewers, those you feel should be invited to comment, as well as to any who may request the opportunity to do so. We have asked that comments be returned by January 2, 1987 as requested, and that copies be sent to the Clearinghouse for our files.

The Clearinghouse intends to take no further action on these documents.

Sincerely,

Sue Heath

SUE HEATH
Clearinghouse Manager

Enclosure

cc: Donna Geiger

MONTANA INTERGOVERNMENTAL REVIEW CLEARINGHOUSE
REVIEW AND COMMENT FORM

Applicant: U.S. Department of Energy
Bonneville Power Administration Phone: (503) 230-5136
Address: Attn: Donna Geiger, Public Involvement Manager
P.O. Box 12999, Portland, OR 97212
Subject: Intertie Development and Use (IDU) Draft Environmental Impact Statement (DEIS) and Proposed Long-Term Intertie Access Policy

Clearinghouse SAI No. MT861024-182-X

YOUR COOPERATION IS REQUESTED IN COMPLETING YOUR REVIEW AND RETURNING THIS FORM WITH YOUR COMMENTS TO THE ABOVE ADDRESS, WITH A COPY TO THE CLEARINGHOUSE, NO LATER THAN January 2, 1987

	YES	NO	COMMENTS
Is this proposal consistent with the plans, goals and objectives of your agency?			
Does the proposed action conflict with any applicable statute, order, regulation or rule with which you are familiar?			
Does this proposal overlap, conflict or duplicate other existing programs or agencies?			

Describe any suggestions or ~~from this office~~ improving or strengthening the proposed plan.

Please convey your general conclusion by checking the appropriate response(s).

____ Proposal is supported.
____ Support only with conditions described below.
____ Non-supportive for the reasons described below.
____ Additional information is desired as described below.
____ No comment on this proposal.

REMARKS: _____

Reviewer: _____ Title: _____
Address: _____ Phone: _____
Signature: _____ Date: _____

Return to Applicant listed above, with a copy to:

Montana IGR Clearinghouse
Lt. Governor's Office, Attn: Room 210
State Capitol
Helena, MT 59620

D Geiger

B.C. Hydro
970 Burrard Street · Vancouver B.C. V6Z 1Y3
Telex 04 54512
TELECOPIER: (604) 663-3423
LEGAL DIVISION
18th Floor
TELEPHONE: (604) 663-3605

NEB File No. 1337-13

Mr. J.S. Klenavic
Secretary
National Energy Board
473 Albert Street
Ottawa, Ontario
K1A 0E5

Dear Sir:

Re: NATIONAL ENERGY BOARD ORDER NOS. EHR-1-86 AND AO-1-EHR-1-86

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder;

and

IN THE MATTER OF the National Energy Board Inquiry on the Federal Regulation of Electricity Exports

SUBMISSION
OF
BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

A. NEB ORDER EHR-1-86 - APPENDIX IV ISSUES

1. Surplus Determination

(i) Demonstration of Surplus Energy and Capacity

In order to demonstrate its capability to deliver surplus electricity to the export market, B. C. Hydro (BCH) proposes a program under which it would prepare firm energy and capacity load/resource balances, and the resulting energy and capacity surpluses, on an annual basis for up to 10 years into the future. This information would be filed with the Board and made available to interconnected Canadian utilities by BCH.

BCH proposes that this filing would replace the annual filing now required by the Board under BCH's present export licence EL-162.

The surplus energy and capacity would be determined by comparing firm generation resources with BCH's Probable load forecast and committed firm exports. Firm generation resources would include generation from BCH's hydroelectric plants under critical water conditions, thermal resources and any firm energy purchases. There is a possibility that future loads would be higher than those projected in the Probable load forecast, but BCH would be able to supplement its firm generation resources by various non-firm resources and some demand-side conservation programs, if necessary, to meet higher domestic requirements. BCH considers that this surplus determination procedure would be prudent and would provide assurance that future requirements of its domestic customers would be met. BCH therefore submits that the Board should not apply arbitrary reductions to BCH's demonstrated firm energy and capacity surpluses, such as the "65 percent rule" which has been adopted in some of BCH's previous firm licences such as EL-128.

(ii) Offers of Proposed Firm Export Contracts to Canadian Utilities

Since BCH would, through its annual filing of its firm energy and capacity surpluses, put interconnected Canadian utilities on notice of its surplus availability and its intention to market such surplus to any potential utility customer, whether domestic or export, BCH submits that there should be no further requirement for BCH to offer any firm contract negotiated with a United States utility to interconnected Canadian utilities.

(iii) Approval of Interruptible Block Sales

BCH submits that the requirement for Board approval of interruptible block or contract sales for periods greater than one month should be eliminated. BCH should have the flexibility to take advantage of opportunities which may arise for interruptible contract sales for periods in excess of one month. BCH proposes that it be permitted to negotiate interruptible contracts for up to 24 months without requiring approval of the Board.

Rec'd from J. McDonald 11/3

2. Price Regulation

BCH considers that the Board's first two price tests, i.e. that the export price must recover the appropriate share of the utility's costs and that the export price should not be less than the price to Canadians for equivalent service, are appropriate and need not be changed.

BCH considers that the third price test, i.e. that the export price should not be materially less than the least cost alternative to the foreign purchaser, should be eliminated. It is frequently difficult to obtain relevant U. S. market information because of the size and complexity of the interconnected U. S. electric utility systems and because of the variability and uncertainty in the costs of current and future supply alternatives to these systems.

It is BCH's position that the prudent exporter will always try to maximize profit by asking for a price that is equivalent to the maximum the market will bear, and the prudent importer will not buy if such a price does not provide adequate savings compared to other alternatives (including offers from other sellers).

BCH submits that floor prices should be eliminated from future NEB licences for both hydroelectric energy and thermally-generated energy, since the Board's first price test already requires that the exporting utility recover its costs. BCH submits that the additional regulatory restriction of a floor price would both prevent sales from taking place under difficult market conditions and could provide an artificially low target price for export customers under better market conditions. A fixed minimum price may not track market conditions and can soon become outdated.

3. Licence Term

(i) Long Term Firm Exports

For long term firm exports that are associated with a particular generating facility, BCH submits that the term of the licence should be based on the term of the contract covering the sale from that particular facility. BCH considers that the present limit of 25 years is adequate for such long term export sales. Further comments on the surplus determination, price, etc. are included in comments in Item 2 of Appendix I to Order AO-1-EHR-1-86 re additional issues to be addressed.

(ii) Firm Exports from Existing Facilities

For firm exports from existing system facilities, BCH submits that the term of a firm licence should not be based solely on estimates of firm surplus capability provided at the time of the licence application. BCH submits that the Board should consider longer terms for licencing firm exports from existing facilities (i.e. up to 10 years) subject to the utility being able to demonstrate firm surplus capability in filings made subsequent to the licence hearing due to changed circumstances such as different load conditions and/or acquisition of additional resources.

Each firm export requires a written contract which must be approved by the Board at which time the Board can review the capability of the system to meet the export quantities for the time period involved.

A short term for firm licences has the disadvantage of uncertainty for the purchasing utility when the proposed term of the contract extends significantly beyond the term of the licence. This concern causes difficulty in negotiations and could be reduced by more flexible extended term licences.

BCH submits that the Board should be able and prepared to deal expeditiously with firm contracts that are justified on the basis of surplus estimates filed subsequent to the licence application, without the need for further public hearings.

(iii) Interruptible Exports

In the case of interruptible exports, BCH submits that the licence term should be open-ended with no volume restriction since such exports can be curtailed at any time to meet firm load requirements of the exporting utility or of interconnected Canadian utilities.

4. Transmission Access

With respect to access to potential U. S. purchasers by potential Canadian exporters which do not have direct transmission access, BCH submits that a utility owning transmission access to export markets should not be required to provide access to other exporters if such access would have a detrimental effect on the revenues or operations of the owning utility.

Assured access to new international transmission lines should only be available to the extent that potential exporters have proportionately shared in the costs, risks and liabilities associated with ownership of all transmission facilities, up to and including the new international facilities.

5. Issues Related to Federal and Provincial Overlaps and to Regulatory Process

(i) Electricity Export Licencing

There is considerable duplication between provincial regulation and NEB regulation and BCH requests that such duplication be eliminated wherever possible. For example, consistency is needed in the approach by the Province and the NEB on surplus determination.

BCH also submits that the regulatory process would be simplified and streamlined if the following changes were made:

(a) circulating power flow, or loop flow, should not be regulated by the Board since this, by definition, does not involve any net export of Canadian energy. As there is considerable work involved in applying for a loop flow licence, and such licence appears to serve no useful purpose, BCH submits that the requirement for licencing of loop flow be eliminated.

(b) regulation of storage interchange agreements by the Board should be eliminated since storage transactions rarely involve any net export of Canadian energy, and such regulation may impede the utility's operating flexibility.

(c) in provinces such as British Columbia where energy removal is provincially regulated, any restriction on the use of thermally generated energy for export other than through the Board's first pricing test should be a provincial matter and not be a subject for Board regulation.

(d) BCH is concerned that the Board's rulings throughout its jurisdiction be consistent to avoid conflicting rulings as in the case of the New Brunswick/Prince Edward Island v. Hydro Quebec situations.

(ii) Certification and Routing of Internat

In provinces where provincial regulation exists and has jurisdiction over construction of power lines such as in British Columbia under the Utilities Commission Act, BCH submits that the sole jurisdiction for approval of such lines should rest with the province. For example, in British Columbia under the Act, transmission projects at 500 kV and above are regulated and transmission projects at lower voltage can be regulated. This regulation deals with technical, environmental, economic and financial aspects of the proposed power line. The routing of an international power line can result in a line of either significant length, or alternatively, of very short length if terminated adjacent to the Canada-U. S. border. The routing of such a line is a business decision by the utility proposing to build the intertie and BCH submits that the Board should only be concerned with regulating firm and interruptible export transactions which would be transmitted on the international power line.

B. NEB ORDER AO-1-EHR-1-86 - APPENDIX I ISSUES

1. Exports from Imported Energy Sources

BCH does not have any thermal generation fuelled by imported oil or coal in its integrated system, and therefore does not have any comments regarding regulation of electricity generated by it from imported energy sources.

2. Dedicated Export Facilities

BCH's comment on Item A. 3. above (licence term) indicated that the present limit for an export licence of 25 years is acceptable. Regarding treatment of surplus, export price and other public interest considerations related to long term export proposals involving dedicated facilities, BCH considers that licence applications for such exports must consider the following:

(i) the exporting utility must demonstrate that it has resource options that will ensure that the needs of its domestic customers over the contract term can be met if the dedicated facility is unavailable for the domestic market. This would be demonstrated by the utility filing a system plan without the proposed facility being dedicated to the export market, and a second plan demonstrating how the utility would meet its loads with the dedicated facility being unavailable over the contract term.

(ii) the contract price must recover the appropriate share of the utility's costs over the contract term and show a benefit to the utility's domestic customers. This would normally be demonstrated by comparing the net present value of costs and benefits under the two system plans noted above. This analysis would also consider the additional costs, if any, caused by advancing other facilities because the dedicated facility is unavailable for the domestic supply.

3. Certification of International Power Lines - Assessment Criteria

In Item A. 5. above, BCH submitted that the Board should not have jurisdiction over the technical, environmental, economic and financial feasibility of international power lines. The technical and environmental issues would be dealt with by provincial regulation in a certification process. The economic and financial feasibility would be assessed in this process as well as in rate procedures before the provincial regulatory agency. BCH submits that these processes will ascertain whether the investment in the international power line is a prudent business decision and is in the public interest. Therefore, BCH submits that the Board's only concern should be regulation of firm and interruptible export transactions which would be transmitted on the proposed international power line.

W. A. Best, Senior Vice-President, System Development and Research, is the vice-president responsible for policy aspects of this submission.

All of which is respectfully submitted.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

Per: _____
W.A. Best
Senior Vi
System Deve opment
and Research

Per: _____
R.D. Strilive
General Counsel

Dated at Vancouver, B.C. this 24th day of October 1986.

This Submission is filed by British Columbia Hydro and Power Authority whose place of business and address to which communications may be sent is R.D. Strilive, General Counsel, British Columbia Hydro and Power Authority, 18th Floor, 970 Burrard Street, Vancouver, B. C. V6Z 1Y3.

Robert W. Welch, Jr.
Vice President
Environmental Affairs

October 30, 1986

Mr. James J. Jura
Administrator
Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

Dear Mr. Jura:

I appreciate your offer to send me copies of the Intertie Development and Use Draft Environmental Impact Statement, the Proposed Intertie Access Policy and/or various discussion papers relating to proposals to increase the availability of electric power to BPA's customers. However, I am unable, from their description in the Issue Alert, to identify those documents of interest to me.

As you are aware, I too am in the energy business and have responsibility for supervising the preparation of Environmental Reports to support the construction, operation and maintenance of lineal facilities. I make it a point to keep abreast of environmental methods and techniques that others, like yourself, are utilizing to support such facilities. Therefore, rather than randomly request documents from you which may or may not contain the information I am seeking, I believe it would be easier for me to tell you what my interests are and let you or your staff select the requisite documents.

Specifically, I am interested in the scoping techniques used, route selection, right-of-way clearing and maintenance impacts, socio-economic impacts of construction and operation, and alternate evaluations. I am also interested in how you address the issue of electromagnetic or non-ionizing radiation on expansion projects.

Receiving your announcements and publications is greatly appreciated. They have been both useful and informative.

Yours very truly,

ce-President

Columbia Gas System Service Corporation, 20 Montchanin Road, Wilmington, Delaware 19807

December 5, 1986

EVRC

Mr. Robert W. Welch, Jr.
Vice President, Environmental Affairs
Columbia Gas System Service Corp.
20 Montchanin Road
Wilmington, Delaware 19807

Dear Mr. Welch:

In response to your request for information pertaining to environmental statement preparation, we have enclosed several documents for your perusal.

Appendix A, Methodology, for the Garrison-Spokane 500 kV Project contains much of the information you seek related to how we address concerns such as scoping techniques, the environmental studies process, and impact assessment.

For information on discussions of rights-of-way clearing, maintenance, and socioeconomic impacts, we have enclosed the draft and final documents for the Fall River/Lower Valley Transmission System Reinforcement project.

Also enclosed is a report entitled "Electrical and Biological Effects of Transmission Lines: A Review," recently revised, which explains how we address electromagnetic or nonionizing radiation issues in relation to our projects.

Thank you for your interest in Bonneville's programs, Mr. Welch. We hope that this information will be of help to you in preparing Environmental Reports on linear facilities. If we can be of further assistance, please let us know. We will continue to alert you to publications which may be of interest to you.

Sincerely yours,

Inez S. Graetzer
Public Affairs Specialist

Enclosures

ISGraetzer:mra:4529 (EVRC-1992e)

cc:
D. Geiger/M. Danley - ALP
Official File - EVR

response to ltr TIE 1-3

OREGON PROJECT REVIEW ACKNOWLEDGMENT

State Clearinghouse
Intergovernmental Relations Division
155 Cottage Street N. E.
Salem, Oregon 97310

OR 861027-053-4

Phone (503)378-3732 or Toll Free in Oregon 1-800-422-3600

Applicant: BONNEVILLE POWER ADMIN.

Project Title: Intertie Development and Use

Date Received: 10/27/86 (start of 45-day review period)

PNRS#: OR861027-053-4 BE SURE TO PLACE THIS NUMBER ON YOUR APPLICATION BEFORE SUBMITTING TO FEDERAL AGENCY.

Your project notice has been assigned the file title and number that appear above. Please use it in correspondence and, if applicable, enter it in Block 3A on the 424 form for the project. IN ADDITION, YOUR PROJECT NOTICE MUST BE SUBMITTED FOR REVIEW TO YOUR LOCAL CLEARINGHOUSE.

Grant Type: DRAFT EIS

NOTE: Your project was circulated to the following state agencies:

Agriculture	Economic Development
Historic Preserv.	Governor's Office
DEQ	Energy
Fish & Wildlife	Forestry
Geology	Lands
LCDC	Water Resources

IN REPLY REFER TO:

United States Department of the Interior

2800 (932.3)

BUREAU OF LAND MANAGEMENT
222 North 32nd Street
P.O. Box 36800
Billings, Montana 59107

November 10, 1986

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG #: TIE-1-5
NOV 14 1986
AREA: DISTRICT
OKK

James J. Jura, Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Mr. Jura:

Our review comments to your Proposed Intertie Access Policy focus toward BLM jurisdictional interests in Montana. By nature of the resource base in Montana, these interests may differ from those of our sister BLM states to the west.

Our recommendations include:

1. The policy be written in a way that invites and encourages joint use, thus limiting proliferation of duplicative/paralleling transmission and land use.

2. The policy be written to encourage interstate, interregional, and international power flow, load management, and marketing. This will provide expanded markets for power generated by our coal resource customers/lessees.

3. The policy be written to encourage competition between public, consumer, and investor-owned wholesale power suppliers, thus yielding lower retail rates to the consumer.

Thank you for the invitation to comment.

Sincerely,

Deau Stepanek

Deau Stepanek
State Director

MONTANA INTERGOVERNMENTAL REVIEW CLEARINGHOUSE
REVIEW AND COMMENT FORM

Applicant: U.S. Department of Energy, Bonneville Power Administration Phone: (503) 230-5136
Attn: Donna Geiger, Public Involvement Manager
Address: P.O. Box 12999, Portland, OR 97212
Subject: Intertie Development and Use (IDU) Draft Environmental Impact Statement (DEIS) and Proposed Long-Term Intertie Access Policy

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG #: TIE-1-6
RECEIPT DATE: NOV 17 1986
AREA: DISTRICT
OKK

Clearinghouse SAI No. MT861024-182-X

YOUR COOPERATION IS REQUESTED IN COMPLETING YOUR REVIEW AND RETURNING THIS FORM WITH YOUR COMMENTS TO THE ABOVE ADDRESS, WITH A COPY TO THE CLEARINGHOUSE, NO LATER THAN January 2, 1987

	YES	NO	COMMENTS
Is this proposal consistent with the plans, goals and objectives of your agency?	X		
Does the proposed action conflict with any applicable statute, order, regulation or rule with which you are familiar?		X	
Does this proposal overlap, conflict or duplicate other existing programs or agencies?		X	

Describe any suggestions or means of improving or strengthening the proposed plan.

Please convey your general conclusion by checking the appropriate response(s).

__x__ Proposal is supported.
_____ Support only with conditions described below.
_____ Non-supportive for the reasons described below.
_____ Additional information is desired as described below.
_____ No comment on this proposal.

REMARKS:

Reviewer: David Schwab Title: Archaeologist/Anthropologist
Address: 225 N. Roberts, State Historic Preser. Phone: (406) 444-7715
Signature _____ Date: 11/13/86

Return to Applicant listed above, with a copy to:

Montana IGR Clearinghouse
ℓℓ Governor's Office, Attn: Room 210
State Capitol
Helena, MT 59620

ACKNOWLEDGEMENT

State of California
Project Notification and Review System
Office of the Governor
(916) 445-0613

PACIFIC NW/SW INTERTIE DEVELOPMENT, USE, ACCESS
STATE CLEARINGHOUSE NUMBER: 86102806
REVIEW STARTS: 10/28/86
REVIEW ENDS: 12/24/86
CONTACT: NORMA WOOD
(REVIEW STARTS ON NEXT WORKING DAY WHEN
DOCUMENT IS RECEIVED AFTER 10:00 A.M.)

Please use the State Clearinghouse Number on future correspondence with this office and with agencies approving or reviewing your project.

This card does not verify compliance with environmental review requirements. A letter containing the State's comments or a letter confirming no State comments will be forwarded to you after the review is complete.

Rev. 8/32

METRO

2000 S.W. First Avenue
Portland, OR 97201-5398
503/221-1646

Intergovernmental Project Review

Date: November 21, 1986

To: James J. Jura, Administrator, DOE-BPA

From: Mel Huie, Local Government Analyst

Regarding: Intergovernmental Project Review

Project Title: BPA - DEIS

Metro File No.: 8611-1 Intertie Development & Use Draft EIS

Review Completion Date: ASAP

Metro has received your Notification of Intent to apply for federal funds for the project listed above. Copies of the project summary have been sent to local jurisdictions and interested agencies in the region for their review and comment.

Any comments received through this review, as well as a letter from Metro, as the Areawide Clearinghouse, will be forwarded to you within 45 days. These should accompany your final application to the funding agency, along with a statement indicating that any comments received have been considered in development of your application. If your final application has already been submitted, the comments may be forwarded under separate cover.

If you have any questions regarding our review, please contact me.

mh:sl

Kettle Falls–
Located on beautiful
Lake Roosevelt
in the heart of
Washington's
vacation land.

KETTLE FALLS
Chamber of Commerce

Gateway
to the
Upper
Columbia
Waterway

P.O. BOX 119

Kettle Falls, Washington

013765

November 25, 1986

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG # TIE-1-9
RECEIPT
DEC 03 1986
AREA: DISTRICT
OK

Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208

Attn: Anthony R. Morrell

Dear Mr. Morrell:

We appreciated the opportunity to review the EIS Draft in regards to the Intertie Development. We also appreciated the opportunity to participate in the telephone conference.

One of the foremost concerns expressed by businessmen and concerned citizens in this community for Lake Roosevelt is the stability of the lake level. Lake level stability seems to have the most significant impact to fish reproduction, shoreline vegetation for the food chain process, and shoreline erosion.

Our major concern, after reviewing the Environmental Impact Statement, is we were not able to locate, in the contents or under any of the Alternatives, any information concerning the 11,500 CFS planned for diversion under Phase II of the Lower Irrigation Project.

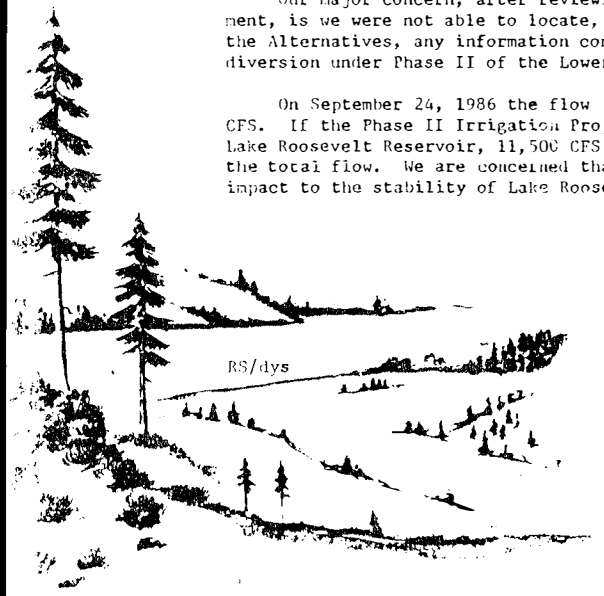
On September 24, 1986 the flow at Grand Coulee Dam was 49,700 CFS. If the Phase II Irrigation Project were presently pumping from Lake Roosevelt Reservoir, 11,500 CFS would equal in excess of 23% of the total flow. We are concerned that this would have a significant impact to the stability of Lake Roosevelt/lake level.

Sincerely,

Ron Snyder

Ron Snyder
Chamber of Commerce President

RS/dys



RECEIVED
DEC 2 1986
LAND
MANAGEMENT SECTION

BOARD OF COUNTY COMMISSIONERS

LINCOLN COUNTY
STATE OF MONTANA

DISTRICT NO. 1, LIBBY
JIM R. MOREY

DISTRICT NO. 2, TROY
R. W. LINDSEY

DISTRICT NO. 3, EUREKA
NOEL E. WILLIAMS

CLERK OF THE BOARD AND COUNTY RECORDER, JANET B. F. SIEGEL
512 CALIFORNIA AVENUE
LIBBY, MONTANA 59923

November 25, 1986

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG # TIE-1-10
RECEIPT
DEC 03 1986
AREA: DISTRICT
OKK

Dept. of Energy
Bonneville Power Adm.
P.O. Box 3621
Portland, Or. 97208

Dear Sirs:

The Lincoln County Board of Commissioners have reviewed the draft Environmental Impact Statement (EIS) on Intertie Access Policy or (IAP), that will address short and long term transmission of surplus power.

We are very concerned about Lake Koocanusa and it's tributaries and would request that B.P.A. choose the option that would have the least impact on Lake Koocanusa.

Specifically, our primary concerns are that Lake Koocanusa continues to reach full pool as early as possible in the summer, and that drawdown be delayed as late in the year as possible, as the weather permits a great deal of recreation through mid-October.

We feel our lake has contributed many additional dollars to our area in the form of recreation and we would be against anything that would degrade the value of our fisheries.

The Board of Commissioners are very pleased to be able to have a part in the input into your decision.

Thank you,

R. W. LINDSEY, Chairman of the Board

NOEL E. WILLIAMS, Member

JIM R. MOREY, Member

cjb

RECEIVED
DEC 3
TITLE & LAND
MANAGEMENT SECTION

ALT

F.O.G. 12-6-86

Jona Geiger;
B.P.A.
Public Involvement Mgr.,

This is a formal request for a copy of the BPA Intertie E.I.S.

Please send to Friends of the Greensprings
16399 Hwy 66
Ashland, OR. 97520

F.O.G. also requests a public hearing in the Pinehurst area and an extension of time between our receiving the E.I.S. & the public comment schedule, so that a real assessment can be made of the E I S, thus ensuring more valid public comment.

Sincerely.

487-1208

Fontaine Stable Sec/Treas.
F.O.G.
16399 Hwy 66
Ashland, OR. 97520

VICTOR ATIYEH
GOVERNOR

STATE OF OREGON
1859

OFFICE OF THE GOVERNOR
STATE CAPITOL
SALEM OREGON 97310

December 10, 1986

James Jura, Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208

BPA is now taking comments on its draft Intertie Development and Use Environmental Impact Statement (EIS). The deadline for written comments is January 2, 1987. I ask that you extend the comment period for 60 days.

Our comments will be written by the Oregon Review Committee. The committee includes lay members from Malin, Keno, and Pinehurst, planning staff from Klamath and Jackson counties, and staff from eight State agencies.

Committee members -- particularly the lay members -- do not have enough time to adequately review the long and complex study and prepare comments. The comment periods for the BPA and California EIS drafts overlap. Further, the holidays cut into citizens' ability to tackle the weighty EIS drafts.

The third AC line is an investment of several hundred million dollars. If built, it will affect the lives of many Southern Oregon residents. They deserve adequate time to review the project and prepare comments.

Sincerely,

Victor Atiyeh
Governor

VA:jf

Assign: Scott
cc: JJJ, RER, SGH, JR, (AC), Geiger, Spigal, Ailshie, Sienkiewicz, Klinger, Tupper

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

December 16, 1986

Mr. James Jura, Administrator
Bonneville Power Administration
1002 N.E. Holladay
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Jim:

On behalf of the PNUCC Board of Directors, I am requesting an extension of time for comment and consultation on your draft Long-Term Intertie Access Policy and draft EIS.

The reasons for requesting an extension of time for the long-term access policy are different from those regarding the EIS so we are separating the requests into two parts.

I. Intertie Access Policy

The new policy, as drafted, is vague in many areas and has created considerable confusion and generated numerous questions which have been left unanswered to date by BPA.

The draft policy has already created considerable division among the BPA customer groups particularly between the generators and the nongenerators. We have heard comments regarding potentials for lawsuits if the draft policy is implemented.

Given that current extra-regional marketing conditions will not likely be adversely impacted by extending the interim intertie policy, we believe further consultations and discussions of a long-term policy will promote regional harmony and should benefit all parties.

Therefore, we request BPA extend the period for discussion of the policy until February 27. In addition, we request BPA conduct additional consultations with all parties during this period. These consultations should be operated and facilitated in a manner to ensure providing a clear understanding of BPA's intent with the existing draft policy and explore all possible mechanisms that could provide additional benefits to all parties.

II. Intertie Development and Use EIS

We are aware of some of the time constraints BPA is under to develop a final EIS before other events regarding the third AC and other Intertie related activities can take place. However, given the magnitude and complexity of the draft EIS and the numerous issues requiring attention in the month of December, we have not had adequate time or resources to review the document.

Therefore we request you make every effort to extend the EIS comment period for whatever additional time you can allow without becoming an impediment to other Intertie activities.

We strongly believe that further BPA consultations on a long-term access policy that will be beneficial to all parties in the region and you should take the time and effort to ensure those consultations. We thank you for whatever consideration you can provide to our request.

Sincerely,

Al Wright
Executive Director

AW:lp:159EE
cc: Janet McLennan, BPA
Donna Geiger, BPA

520 SW Sixth Ave, Suite 505
Portland, OR 97204

MID-COLUMBIA PUBLIC UTILITY DISTRICTS
CHELAN, DOUGLAS, GRANT COUNTIES, WASHINGTON
REGIONAL COORDINATION OFFICE

520 S.W. SIXTH AVENUE, SUITE 1100
PORTLAND, OREGON 97204 (503) 222-3317

December 17, 1986

Mr. James Jura, Administrator
Bonneville Power Administration
1002 N.E. Holladay
Portland, Oregon 97208-3621

Dear Jim:

On behalf of the Mid-Columbia PUDs of Chelan, Douglas, and Grant Counties, I am requesting an extension of the comment period on the Draft Long-Term Intertie Access Policy and the draft Intertie Development and Use EIS. More specifically, we fully support the PNUCC letter to you dated December 16, 1986 wherein an extension and reasons for the request are clearly outlined.

A thorough review and a clear understanding of your intent in many of the sections of the IAP and IDU/EIS is of obvious benefit to all of us, including BPA, in order to respond with appropriate and meaningful comments.

Accordingly, we firmly believe that extending the comment period would be beneficial to all parties in the region. Further, attempting to complete a review and make comments at this time of the year is an extremely difficult task. Your consideration of our request for an extension of the comment period to late February would be greatly appreciated.

Sincerely,

Dennis E. Rohr
Regional Coordinator

DR:tq:105

Attachment

cc: Janet McLennan, BPA
Donna Geiger, BPA

Friends of the Greensprings
15097 Hwy 66
Ashland, OR 97520
December 8, 1986

James J. Jura, Administrator
Bonneville Power Administration
P. O. Box 3621
Portland, OR 97208-3621

Dear Mr. Jura:

I am writing on behalf of the Friends of the Greensprings, a community-service organization of residents of the Pinehurst area along State Route 66, between Ashland and Klamath Falls, in southern Oregon.

We have been exercised over, and deeply involved in, the procedures aimed at transmitting BPA power to California via the COTP 500-kv transmission line. One of the alternate routes for that line passes through the heart of our community, and has united the residents here in opposition to it. We have been, and wish to continue to be, monitoring the decisions by both BPA and COTP regarding this project.

We have been awaiting the release of BPA's IDU DEIS and IAP, intending to examine them closely and to submit extended and detailed comments. Many of us assumed these documents would be mailed to us, as we had mailed to you the postage-paid card included in your October 22 communique. Now we find, on closer reading of that communique, that the card requested not the draft but the final documents, to be issued in spring. Most of our number were misled by a superficial reading of your communique. On the other hand, we do consider a procedure confusing which encloses a postcard by which one can order documents which are not the subject of the communique itself.

We have begun to remedy this, calling your toll-free number to request the necessary documents. But our time is short, and your documents are, by the accounts of those who have begun to receive them, even less readable than one usually finds in such bureaucratic productions. One public hearing will be held in our area--Klamath Falls, December 11. None of us will be prepared to contribute comment by that time. The comment period ends January 2. Since the final two weeks or so are over the holiday period, we are put at a distinct disadvantage both for a thorough reading and study of the documents and for communication of the relevant issues with our constituency so that they too can be included in your public comment process. We suspect, in fact, that perhaps the public comment period was scheduled so as to minimize public involvement.

I urge you to extend the public comment period by at least 30 days, so as to permit the goals of this exercise to be met. Without such an extension, we will not be able to participate as we would like in the full and open airing of the merits of your reports.

Sincerely,

Douglas W. Frank, Chairperson
Friends of the Greensprings

cc: State Representative Nancy Peterson
Senator Mark Hatfield

Assign: Robertson/Geiger
cc: JJJ, RER, SGH, JR, (AC)
Sienkiewicz/Jones, Klinger, Lebens

G.H. BOWERS ENGINEERING

Consultations on Power System Planning

1930 North 122nd Street • Seattle, Washington 98133 Telephone: (206) 361-0461

December 19, 1986

Anthony R. Morrell, Environmental Manager
Bonneville Power Administration
P.O. Box 3621-SJ
Portland, Oregon 97208

Dear Mr. Morrell:

I would appreciate some additional information concerning the IOU DEIS. The questions I have are numbered 1 to 10 and are listed on a page attached to this transmittal letter. Thank you for your assistance in this matter.

Sincerely,

Greg Bowers, P.E.

Encl:

DATA REQUEST BY GREGORY H. BOWERS IN RESPONSE TO THE IOU DEIS

1. The "System Analysis Model, Methods and Theory Manual" on page 3-29 suggests that the SAM does not allow hydro spill to displace nuclear units. This is consistent with the DEIS's findings. Was excess hydro energy allowed to displace PNW nuclear units in the economic analysis made for the IOU DEIS? If SAM was not permitted to use hydro spill to displace nuclear units, how did the DEIS correctly estimate the value of hydro spill to the Northwest?

2A. Approximately what was the cost of the lines and facilities that will be used to wheel power to the Malin substation from the north in connection with the third AC?

2B. If lines that are currently installed to meet southern Oregon load growth are to be used instead for the third AC, when will facilities need to be built to serve southern Oregon load growth? How much will these facilities cost?

2C. Why were none of the costs of providing transmission through Oregon included in the DEIS?

3. Since SAM tries to sell power when it is of most value and BPA's assumed capacity sales benefit (which was arrived at manually and outside of the computer model) is also based on sales at peak periods, isn't the DEIS claiming benefits twice for the same capability?

4. In BPA's scenario in which 3150 MWs of the third AC is used for capacity sales only, why wasn't the capacity of the line available for economy energy sales limited to 4750 MWs (i.e. the total capacity of 7900 less the 3150)?

5. The DEIS assumes that there is no cost for capacity should the Northwest provide 3150 MW to California. How much did it cost us to build our latest 3150 MW of hydroelectric capacity? At our current rates what is the value of this capacity? Should we not use it to serve the PSW, what is the maximum probable revenue we could expect from our 3150 MW of resources?

6. What is the earliest year in which the PNW's capacity surplus might fall below 3150 MW?

7. Please provide a sheet showing how the "On-Peak Displacement" benefits (listed on page 4.8-3 in the DEIS at $370 million) was calculated for each year in the study and the procedure used to present-worth these benefits.

8. What is the correlation coefficient of the annual hydroelectric production in the PNW and the annual hydroelectric production in the PSW given current resources?

9. Please provide a listing of "Increases in PSW Displ. Benefits" for each year of the study assuming economy energy sales only and the "DC upgrade" and "Maximum" cases. (per page 4.8-4, the present worth of these revenue streams is $654 million and $1278 million, respectively) If possible, please also show how much of these benefits was due to the increase in MWh delivered over the intertie and how much of these benefits was due to increased "shaping" capability.

10. BPA prepared in connection with this study a set of data called [illegible] PROJECTED NORTHWEST SURPLUS SALES AND PRICE", BASELINE COSTS. [illegible] reported], been revised since its original publication. Please provide the revised data or its equivalent.

Public Generating Pool

G.R. Garman
Administrative Comm. Chmn
c/o Seattle City Light
1015 Third Ave.
Seattle, WA 98104
(206) 625-3126

E. W. Lubking
Operating Comm. Chmn
c/o Chelan Co. PUD
P. O. Box 1231
Wenatchee, WA 98801
(509) 663-8121

CHELAN CO PUD • COWLITZ CO PUD • DOUGLAS CO PUD • EUGENE WATER & ELECTRIC BOARD • GRANT CO PUD • SEATTLE CITY LIGHT • TACOMA CITY LIGHT

TIE-1-17

December 17, 1986

James Jura, Administrator
Bonneville Power Administration
1002 N. E. Holladay
Portland, Oregon 97208-3621

OS

Dear Mr. Jura:

The Public Generating Pool hereby requests that BPA extend the comment period to February 27, 1987 for the Proposed Long Term Intertie Access Policy and the Intertie Development and Use EIS. The documents are very extensive and require the additional time for review and evaluation to adequately develop comments.

In addition, the comment period includes the Christmas Holiday period which is a most difficult time to give proper attention to such an important issue as the Intertie Policy. The PGP believes that BPA desires and should receive the best possible comments that can be made. Therefore, it is in BPA's best interests as well as the PGP's that the comment period be extended to February 27, 1987.

Thank you for your consideration.

Very truly yours,

E. W. Lubking, Chairman
Operating Committee

cc: Donna Geiger, BPA

Incoming to: Robertson/Geiger

cc: JJJ, RER, SGH, Spigal,
Sienkiewicz, Tupper, Morrell

U.S. DEPARTMENT OF ENERGY — BONNEVILLE POWER ADMINISTRATION

CONFERENCE AND TELEPHONE CALL REPORT

Date 12/23/86

TO: Intertie IDU-EIS

cc: ☐ Intertie Distribution

FROM: Mark Danley

Include all telephone calls and conferences of importance bearing upon policies, customer or public relations, but excluding those purely technical in nature

OUTSIDE CALLER OR CONFEREE	SUMMARY OF DISCUSSION
Stan Reed Engineering Design Associates 6900 SW Haines Tigard, OR 97223 (503) 639-8215	BPA's Long-Term IAP should allow Intertie access to other than scheduling utilities--such as Indian tribes who acquire the rights to hydroelectric projects like Pelton Dam.

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG # TIE-1-18
RECEIPT DATE:
DEC 23 1986
AREA: DISTRICT
OP

BPA 15 [illegible]

United States Department of the Interior

BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
FEDERAL BUILDING & U.S. COURTHOUSE
BOX 043 - 550 WEST FORT STREET
BOISE, IDAHO 83724

IN REPLY REFER TO: PN 150

DEC 24 1986

Ms. Donna L. Geiger
Public Involvement Manager SJ-L2
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

The Bureau of Reclamation has received and reviewed the Draft Environmental Impact Statement concerning Intertie Development and Use (IDU DEIS). As a Cooperating Agency in the NEPA process, we have also participated in the earlier reviews and in portions of the initial scoping process. The comments presented in this letter are an expansion of concerns and questions raised by members of our regional staff at the technical review meeting for cooperating agencies held in your Portland offices on November 17, 1986.

Our letters of September 5, 1985, and July 3, 1986, providing the Bureau of Reclamation's concerns during the scoping process and our comments on the preliminary draft EIS, respectively, covered many of the same issues as we now present for your use in the preparation of future documents concerning Intertie Development and Use. Some additional material was provided in the IDU DEIS in response to the earlier comments, but as you can see from the added and more detailed comments that follow, we are still of the feeling that some very important potential impacts have not been analyzed or adequately presented for review. One of our goals in requesting Cooperating Agency status was to assure that the final IDU EIS would sufficiently cover operational changes and impacts at Bureau-operated facilities of increased extra-regional power demands and the other collateral actions being proposed by BPA to obviate any need for additional, perhaps redundant, NEPA compliance efforts at some later date--before the additional energy demands could be fulfilled.

The Bureau does not have the funds or staff budgeted to aid BPA by conducting the studies of environmental impacts that should be accomplished prior to completing the environmental process and implementing expanded intertie development and use. We are not convinced, however, that this condition relieves BPA of its obligation to consider all the impacts which may result from the proposed actions. The potential for competition, in the not too distant future, between operation of water management facilities in the Columbia River Basin for the generation of energy for export and operation of those same facilities for recreation, fish and wildlife enhancement, agricultural development, and/or other regional water resource uses, is very real. Without making any judgment as to which of those uses should have priority, it would seem imperative that the impacts on the various uses must be considered. We hope that BPA will give these concerns some further thought and that these issues will be more fully explored prior to a final decision on implementation of the proposed Long Term Intertie Access Policy. If the impacts which our reviews have focused upon can be given thorough analysis and appropriate mitigation steps are adopted, the Bureau of Reclamation would be supportive of the concept of implementing those physical and policy actions which would effectively ease the transfer and sale of surplus Federal power.

The following paragraphs provide, by project and resource categories, the questions and concerns expressed by members of our region's staff after they had examined the IDU DEIS in the light of the Bureau's operational responsibilities and expertise. If you have further questions after you have reviewed this letter, please contact Douglas James (FTS 554-1208) of our Regional Office of Environment and he will assist in clarification or put you in touch with the person who can. We look forward to reviewing the preliminary drafts of subsequent documents concerning the intertie access proposal.

Recreation

The draft EIS points out in several sections that there may be impacts to recreation as a result of this proposal. However, it fails to identify where (site specific), when (frequency), how, and to what extent these impacts will occur. Recreation is an important aspect of the economy and quality of life of the Pacific Northwest. It warrants careful analysis. This analysis is necessary in order to adequately evaluate the impacts of this proposal and determine appropriate mitigation measures.

The recreation impact analysis should include a clear presentation of the existing conditions and future conditions with the proposal on a site specific basis in terms of on-the-ground impacts to natural resources and recreational resources. Downstream impacts on river recreation should be included.

The deficiency in definition of impacts makes it extremely difficult to identify appropriate mitigation measures. Therefore, at the risk of underestimating mitigation costs, those costs should be anticipated on a "worst case" basis. This would provide some protection of the recreation interests at Hungry Horse and FDR Reservoirs.

Reclamation's primary concern is that the impacts resulting from this proposal are identified adequately and, if unavoidable, mitigated to ensure continued quality recreation use of our reservoirs. BPA, as the lead agency for IDU DEIS, should take responsibility for adequately identifying impacts and determining appropriate mitigation measures, whether through their own resources or by contract. There are several agencies or entities capable of doing this level of analysis by contract.

We assume that impacts can be mitigated in some cases through structural modification or by modifying reservoir operations. Both direct and indirect impacts should be mitigated as fully as possible. Direct impacts are conditions which are a direct result of the proposed action and may preclude

recreation use altogether. Mitigation of direct impacts may include the following:

--Extend boat ramps to enable access.
--Grade newly exposed beach areas to make them safer for swimmers.
--Sign or remove partially submerged hazards.
--Modify pumps to function at lower reservoir elevations.
--Modify docking system to accommodate fluctuating or lowered reservoir elevations.
--Excavate docking areas to accommodate boats at lower reservoir elevations.

Indirect impacts are those which diminish the quality of recreation use by making it less attractive or accessible to the visitor. Mitigation of indirect impacts may include the following:

--Develop low-water parking areas which allow convenient access to boating facilities during times of low water levels.
--Provide operation and maintenance money (or some other mechanism) to relocate picnic and other land-based facilities closer to reservoir shoreline during times of low water levels.
--Develop new road or trail access to shoreline during low water levels.

Cultural Resources

1. The last paragraph in DEIS section 2.1.5 on page 2-4 states that the intertie upgrades would have no appreciable effect on cultural resources. This statement is premature and misleading since BPA did not analyze actual impacts to cultural resources (see comment 4 in this section). The BPA analyzed changes in the duration and frequency of reservoir water surface elevations in relation to the elevations of known archeological sites at Grand Coulee, Libby, and Albeni Falls. Impacts were then assumed to occur in the same proportion as changes in the reservoir operation variables under study. Reservoir impacts to cultural resources are not necessarily as simple and linear as implied by the BPA analysis. Impacts must be assessed on a site-by-site basis. However, sufficient information is not available to determine impacts of the proposed project with the certainty presented in the DEIS. Completion of surveys to locate, identify, and evaluate cultural resources in the affected reservoirs is needed. The DEIS should not be considered complete until the impacts of the proposed alternatives are fully identified.

2. The discussion of cultural resources (DEIS page 3-23, section 3.2.10.3) at Grand Coulee Dam (Lake Roosevelt) does not include discussion of the Kettle Falls Archeological District (KFAD). The KFAD is listed in the National Register of Historic Places and includes approximately two dozen sites associated with the 10,000-year-old aboriginal fishery around Kettle Falls. The KFAD encompasses large native-American sites as well as two of the earliest European-American sites in the Pacific Northwest--Fort Colville and

St. Paul's Mission. This section should be enlarged to include consideration of the significance of the cultural resources at Kettle Falls and other areas inundated by Lake Roosevelt. The present information gives the reader no indication of the richness of the archeological record.

3. The quality and extent of cultural resources surveys at Lake Roosevelt is highly variable. The available data (DEIS page 3-23, section 3.2.10.3) reflects conditions of up to 20 years ago and is largely incomplete because historical sites were not considered equally with prehistoric sites. Additionally, reservoir dynamics are such that site conditions have changed markedly in many cases.

4. As noted in comments 1 and 3 above, the assessment of effects on cultural resources (DEIS pages 4.7-6 to 4.7-12, section 4.7.5) is based on incomplete archeological survey data and generalized, assumed impacts. Field studies to determine specific impacts on actual sites were not undertaken. In addition, the DEIS and the source document for cultural resources did not provide sufficient detail to evaluate the selection criteria for the sample of years (1992, 1997, and 2002) used in the analysis. Consequently, the reader has no assurance that the assessment produced a representative picture of future operations.

5. The section on mitigation measures (DEIS page 4.7-13, section 4.7.5.4) recognizes the need to conduct further cultural resources studies at the several reservoirs involved in the proposed undertaking. However, the mitigation proposals are too generalized and are based on some incorrect assumptions. The most important is the assumption that it will be possible to differentiate the impacts of IDU from earlier reservoir operation impacts. The lack of baseline data for most of the reservoirs, and the complexity of site and operational interrelationships will probably stifle attempts at relatively accurate separation of effects. All operational impacts since the passage of the National Historic Preservation Act, assignable to power production should be mitigated under the IDU proposal. The assumption that the survey and evaluation to determine impacts of the IDU constitutes a mitigation measure is inappropriate. Mitigation can only be determined after impacts are determined. The results of the survey and evaluation should be available for the IDU EIS.

The following are specific comments on the proposed cultural resources mitigation measures:

The archeological surveys of Grand Coulee and Hungry Horse must include the resurvey of previously investigated areas because of

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*Archaeological and Historical Services. 1986. A Cultural Resources Assessment of the Bonneville Power Administration's Proposed Intertie Development and Use on Lake Roosevelt, Lake Pend Oreille, Lake Koocanusa, Dworshak Reservoir, and Hungry Horse Reservoir. Eastern Washington University Reports in Archaeology and History 100-52. Eastern Washington University. Cheney, Washington.

improvements in surveying methods and changes in site conditions since the original surveys.

A benefit/cost analysis of site protection measures versus data recovery should be completed before adoption of either option. The Bureau of Reclamation has found that site protection is often several times more expensive than data recovery at inundated sites. For example, many of the sites of the KFAD would require exceedingly expensive hand placement of riprap on a continuing basis to assure proper protection.

Analysis, report preparation, and dissemination of archeological mitigation results is not optional. Federal regulations require completion of these tasks.

Interpretation at appropriate agency visitor centers or regional museums should be included as a mitigation measure.

Changes in reservoir operation and restrictions to protect cultural resources should be given serious consideration as mitigation measures. In many instances, for example, rapid drawdown through elevations containing sites can reduce wave and current erosion.

Public Laws 89-665 and 93-291 commit BPA to fund the surveys and mitigation associated with the proposal to establish a new long-term intertie access policy. In those areas where the Bureau of Reclamation has jurisdiction, this work must be done in cooperation with the Bureau to assure compliance with Reclamation policies and practices.

Fish and Wildlife

It would appear that the alternatives which would reduce reservoir levels could be counterproductive to those projects that are attempting to mitigate for historical anadromous fish losses. For example, in the Grand Coulee area, the proposals by the Northwest Power Planning Council for the establishment of hatcheries at Sherman Creek and on the Spokane arm would seem to conflict with the pursuit of increased drawdown potential for FDR Lake. The EIS should note these programs and describe how they will be integrated.

The IDU DEIS should propose mitigation measures for losses to fish and wildlife populations and other resources for those alternatives resulting in such losses. An explanation of how existing fish and wildlife mitigation plans are too be carried out if the no action alternative is adopted would be helpful.

There should be separate sections in the IDU DEIS for the discussion of fish and wildlife impacts and water quality impacts.

Water Operations - Hungry Horse

Section 4.7.3.1 of the DEIS states that an expanded intertie would allow more marketing of energy in peak hours. This would result in changes in hourly

operation which would have consequences for downstream recreation, as described in DEIS Section 4.7.3.

Discharges from Hungry Horse Dam during the summer months on weekends and holidays must be limited only to releases needed to meet minimum fish flow requirements. This requirement is based on the need to maintain the quality of fishery and recreational experience for the river users and to minimize safety problems that may arise from flow changes and high flows during heavy weekend recreational use. Restricting discharges on weekends during the summer months and holidays should be considered a firm constraint at Hungry Horse and should be factored into the intertie expansion studies.

Water Operations - Grand Coulee

Lower reservoir levels and more frequent fluctuations would have a profound adverse impact on local economies that rely on visitors drawn by water recreation activities. The area surrounding Grand Coulee Dam is experiencing a period of economic slowdown. Any proposal which would affect the area's basic industry, tourism, must be carefully analyzed. Extreme drawdown fluctuations are already a problem there, and with the potential of more to come, any development based on recreational attraction would become additionally risky.

The reservoir at Grand Coulee and the one at Hungry Horse were constructed prior to 1965 and are covered by the provisions of Public Law 89-72, Section 7(a). Those provisions authorize the Secretary of the Interior to operate, maintain, or otherwise provide for public outdoor recreation and fish and wildlife at any reservoir constructed prior to 1965, in coordination with other project purposes. The project purposes at both of these projects include navigation, flood control, irrigation, and hydropower. These objectives must not be restricted by subsequent studies and/or proposals to expand the range of electrical energy services. The intertie access policy alternatives must recognize that constraint.

Columbia Basin Project - Irrigation

The IDU DEIS recognizes only the current level of irrigation development on the Columbia Basin Project. Development of up to an additional 500,000 acres is authorized, and the Bureau of Reclamation is currently in the process of evaluating alternatives for future development of the project.

Comments submitted with respect to the effects of the proposed intertie development might have on the Columbia Basin Project as part of the early review process have been only briefly addressed. The DEIS, sections 3.2.9.2 and 4.7.4, makes a point of not addressing the impacts that increased capabilities to meet extra-regional power demands would have on plans to continue with full development of the authorized Columbia Basin Project. The reason given is that regional firm power impacts from continued project development would be equally affected by all intertie policy and capacity alternatives considered. This position does not appear to fulfill requirements for the EIS to consider fully the potential for impacts on existing and potential resources and resource uses, such as future irrigation expansion. The EIS evaluates long-term potential access policies and likewise needs to consider and acknowledge any immediate or potential effects on long-term water resource

commitments even though they may extend beyond the normal time frame of BPA studies.

The two sections cited above explain that the water withdrawal for the second half of the project will be considered for extension in 1989. However, no mention is made of the withdrawal's 1938 priority date. The water has been reserved from appropriation by other parties since 1938 under Washington State water codes. For the purpose of this environmental analysis, the water's future irrigation use must be explicitly treated as a firm constraint on allocation of Columbia River water for other uses including power production for the intertie system, and the impact of any alternative which might conflict with that use should be clearly presented.

Although DEIS Section 4.7.1 states that "Intertie decisions should not affect irrigation," no substantiation of that position is provided nor are any commitments made to that effect. This language leaves open the possibility that the intertie system could negatively affect future irrigation yet does not fully address the consequences should such effects occur. As stated in the Bureau's July 3, 1986, comment letter (Specific Comments - section 3.2.9.2) "BPA's proposed long-term intertie development and use policy must not conflict with authorized purposes of agencies involved in operating the Columbia River Federal Power System."

The first half of the Columbia Basin Project is one of the most significant factors influencing the Columbia Basin area today. The project has had dramatic social, economic, and recreational impacts. While the impacts of continued development would not be of equal magnitude, they would nonetheless be significant. Issues concerning allocation of both fiscal and natural resources are of equal consequence. Any action which affects the likelihood either positively or negatively of continued project development has far-reaching significance. While this EIS may not be able to evaluate in detail all the consequences that the use of available water resources for additional energy sales might have on irrigation development occurring or not occurring, it should recognize the potential conflict between competing resource uses and provide a description of the effect that implementation of the preferred long term Intertie Access Policy would have on other existing and potential uses of the region's resources.

Region-wide Water Operation Requirements

The descriptions of the alternatives (DEIS pages 2-2 to 2-3) should explicitly identify the associated reservoir and river operation changes. Operational changes are integral, not incidental, to implementation of the intertie, thus they should be accorded equal status with changes in transmission capacity, construction, institutional relationships, and economics.

The IDU DEIS does recognize that the current levels of irrigation water withdrawals are based on established water rights. There is consequently an operational need to carry water over in reservoirs through the winter to fill these water rights. The control of winter releases to serve these priority rights is a constraint on operational changes which must be recognized in the evaluation of access policy alternatives.

The DEIS states that project owners will continue to operate projects within the specified limits independently of intertie capacity or policy, and that intertie capacity or policy decisions may change the frequency with which project operating limits are reached, particularly on a daily or hourly basis. Other parts of the report also state that intertie capacity cases would have little effect on storage reservoir elevation and should not affect irrigation. However, review of the draft, including the narrative and the comparative analyses of intertie alternatives and access policies, does not result in a clear assurance, with substantiating material, that Bureau of Reclamation operational constraints will be met, especially at Hungry Horse and Grand Coulee Dams.

The following two specific analyses contained in the DEIS are pointed out to illustrate the concern over whether operating constraints are being met in the planning models:

1. Table 2.1, Summary of Major Decision Elements and Environmental Effects--Decision Packages, Item G, Recreation.--Current policy at Hungry Horse is to establish constraints to meet historical refill probability. Accordingly, refill studies are based on an 80-percent probability of being in the top 2 feet of the reservoir at the end of July. This data is used by the region's power coordination group to establish system reservoir operations.

   The draft EIS shows the probability of being in the top 2 feet at Hungry Horse Dam at the end of July ranges from 70.3 percent under package No. 1--No Action, to 65.8 percent or slightly less for package No. 5--Maximum Capacity, Modified Policy. It appears that the probability of refill should be fixed in the Systems Analysis Model (SAM), so that the probability of being in the top 2 feet at the end of July (package No. 5) should be the same as for package No. 1--No Action Alternative--the same for all alternatives. The EIS should clarify this issue. What is the significance, and the impact, of this predicted reduction in the probability of meeting operating constraints?

   At Grand Coulee Dam, existing pumps for irrigation pumping draw water from the impounded reservoir, FDR Lake. As the reservoir level drops, pumping becomes more difficult and pumps will not operate or may become damaged if the reservoir drops too low. Currently, there is a requirement for the reservoir level to be at or above 1240 feet at the end of May for irrigation. Accordingly, DEIS table 4.7.1 shows the probability of reservoir elevation being at or above 1240 feet at Grand Coulee at the end of May. The table shows no difference among alternatives in meeting the 1240-foot criterion for irrigation, and this would be expected. However, there is a slight reduction in the probability for the year 2002 (96.5 percent) from the probability for 1997 (98.5 percent) and for 1992 (98.0 percent). Is this reduction the result of changing operating constraints? One would expect planning models to recognize the 1240-foot or above mark at Grand Coulee for all periods. The EIS should clarify this issue. It is recognized, of course, that actual operations may, from time to time, drop below the 1240-foot mark.

2. Section 4.2, Power Systems Effects.--This section discusses the effects of intertie enlargement decisions on levels of Pacific Northwest generation by resource type versus the levels of generation by resource type in California and Inland Southwest (ISW). The main point being that increased intertie capacity will increase levels of Pacific Northwest generation and allow for curtailment in thermal generation in California and ISW. However, the DEIS also shows that as generation in the Pacific Northwest is increased under the various intertie enlargement options, an even larger amount of generation is curtailed in California and ISW. A better explanation is necessary in order that the reviewer might understand how this can occur.

DEIS table 4.2.2 shows that under the DC upgrade alternative, generation in the Pacific Northwest would increase approximately 100 average megawatts (MW) for hydro and 60 average MW for coal, for a total increase of 160 average MW. Tables 4.2.3 and 4.2.4, however, show that for the same intertie alternative, generation is reduced by 106 average MW in California and 250 average MW in ISW. How can 160 MW of increase in the Pacific Northwest offset 356 MW (106 + 250) of generation in California and ISW? Similar apparent discrepancies exist for the other two intertie alternatives, 3rd AC/COTP and Maximum Intertie.

In summary, the above examples do not give assurance that the individual project constraints are being met in the SAM analysis, and the ELFIN model (DEIS page 4.2-7) which estimates generation levels in California is correctly calibrated with SAM.

General Comments Relative to Reclamation Programs

Section 4.2.3.3--New Resource Development (pages 4.2-27).-- The IDU DEIS indicates that the option of maximum intertie development, firm contract sales for surplus power, and no restrictions on access to the intertie result in the most significant impacts on development of small hydro (277 MW by 2002) compared to limited intertie access or nonfirm contract sales (DEIS table 4.2.30). Apparently, increasing intertie capacity alone has only a small effect on the amount of new resource development. The Bureau of Reclamation currently has several hydropower proposals "on hold" for various reasons, but the main reason is the lack of demand until sometime in the late 1990's. The unlimited access policy proposal alternative coupled with firm contract sales appears to offer a greater likelihood of bringing these projects online.

The discussion of potential new power sources to be added to the intertie system raises numerous questions. The construction of new non-hydro powerplants using coal, oil, natural gas, or nuclear fuel would certainly have a profound effect on agricultural development, recreation, fish and wildlife, and many other aspects of the environment in the Pacific Northwest. The possibility that increased electrical power development within the area would preclude or, at least, limit the development of these other resources

represents a potential for broad cumulative impacts as a result of the adoption of any of the policy alternatives.

Thank you for the opportunity to review and comment upon this draft EIS.

Sincerely yours,

John W. Keys, III

Regional Director

cc: Director, Office of Environmental Project Review, Office of the Secretary, Department of the Interior, Washington, D.C.
Commissioner, Bureau of Reclamation, Washington, D.C.; Attn: Code 150
Roy B. Fox, Environmental Coordinator, Office of Power and Resources Management, PGC, Bonneville Power Administration, P.O. Box 3621, Portland, Oregon 97208

BASIN ELECTRIC POWER COOPERATIVE
1717 EAST INTERSTATE AVENUE
BISMARCK, NORTH DAKOTA 58501-9996
PHONE 701/223-0441

December 23, 1986

Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Sir:

Your notice in the Federal Register of November 3, 1986, solicited comments on your proposed Long-Term Intertie Access Policy (LTIAP). Basin Electric is pleased to be able to comment on the proposed policy.

The proposed LTIAP is important to Basin Electric because the Cooperative is currently selling 185 MW of capacity and energy to the Western Area Power Administration (WAPA) from its Antelope Valley Station in North Dakota which is being delivered to WAPA loads in Northern California in part through contract DE-MS79-84BP91627. This contract is listed in Exhibit C in the draft as an agreement that was signed before the implementation of the Near Term IAP and would continue to receive Intertie access under the new policy. This contract expires on October 31, 1990.

It was Basin Electric's understanding that the transmission path that WAPA obtained from the Bonneville Power Administration (BPA) for the delivery of their power purchased from Basin Electric was a firm path. We do not agree with the BPA proposed policy that would permit BPA to interrupt these schedules under certain conditions.

We believe that the proposed LTIAP should be amended to include a provision for the extension of this contract after October 31, 1990, if it is determined at that time to be in the best interests of the parties involved. WAPA entered into a contract with Basin Electric for this capacity and energy at a time of projected shortages of capacity in the region and the Antelope Valley Station was the most economic supply available. WAPA made a significant investment of consumer's dollars in transmission facilities in Montana in order to be able to receive this power. The BPA also made a significant investment of its consumer's dollars for a 185 MW path on the 500 kV transmission system in Montana and a long-term wheeling contract in that state that will not be utilized once this contract expires in 1990. It only makes economic sense to utilize the facilities once they have been constructed. Additionally, the U.S. Congress appropriated monies for the above-mentioned facilities with the understanding that the contract arrangements between WAPA and BPA would be on a long-term basis.

While current forecasts may show surplus generating capacity for the region, we all know how difficult it is to see into the future. It would be unfortunate to eliminate this low cost source of power from future consideration. Thus, I believe the policy should provide for the extension of this contract.

It is in this country's best interest, since both BPA and WAPA have invested millions of dollars in a long-term transmission path to the coal fields of North Dakota, that BPA assure WAPA of a firm path so that this investment may be utilized for the delivery of power under the present contract and to ensure that the lowest cost options are available for possible future transactions.

It is Basin Electric's belief that the policy also suffers by not adequately recognizing and assessing the contributions that could be made by the extraregional utilities. In particular, we are disturbed by the preference given for Assured Delivery to Canadian resources. While purporting to be a limiting feature, it seems obvious that provision H. on page 11 of the proposed LTIAP gives a preference to a foreign government or utility that cannot be given to an Extraregional Utility in the United States.

It seems ironic that during a time in our history that this country is being economically devastated by imports of foreign products, including electricity, that an agency of a Federal Government can draft a policy that would give preferential treatment to a foreign country. Any action which unnecessarily increases this country's dependence on foreign-based electrical generation would seem counter to our national security and not consistent with efforts to achieve energy independence. I see no possibility that any Extraregional Utility would have the opportunity to enter in a similar contract with Bonneville and be granted assured delivery.

Sincerely,

Howard F. Easton
Assistant General Manager
Marketing and Member Services

CMO/jjw
CERTIFIED MAIL

Box 1039
Polson, MT 59860
December 22, 1986

Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
Box 12999
Portland, OR 97212

Dear Ms. Geiger:

The issues of major concern to the Fltathead Basin Commission that relate to the BPA Long Term Intertie Access Policy are assurance of high water quality and preservation of our wildlife resources, particularly the quality of Western Montana Fisheries (as well as to provide electric power).

The 'Draft" EIS, Vol. 2, Proposed long-term IAC, notes that with respect to Canadian resources "such contract must include benefits to the BPA, such as increased storage, improved system coordination or operations, or disposition of down-stream benefits under Canadian Treaty beginning in 1998."

We approve.

There are statements, however, that do raise concerns about the access of new resources (hydro, thermal, nuclear) which if poorly planned, designed or managed could very well prove to be a hazard to our own resources. A trade-off here, namely to access extra-regional resources may indeed be more beneficial for Western Montana's natural resources than for us to accept environmentally risky regional (new) resources.

We would like for the Power Plan or Policy to include an allocation of power to serve during years of extreme low flow to prevent damage, especially if an extreme demand for power were to occur during the same period. The word damage includes the important economic impact of stream and lake levels to recreation and tourism in Montana, as well as impacts upon fisheries. We think that a balanced load-resource plan would be preferable to costly mitigation resulting from failure to provide for such contingencies: A non-degradation of our resources policy.

The Commission supports a vigorous conservation program as a very beneficial resource.

Sincerely,

Elwin Bennington, Chairman
Flathead Basin Commission

cc: Craig Hess
George Eskridge
Steven Foster
Bruce Hayden

PUBLIC UTILITY COMMISSIONER OF OREGON

LABOR & INDUSTRIES BUILDING, SALEM OREGON 97310 PHONE (503) 378-6611

December 30, 1986

Ms Donna L Geiger
Public Involvement Manager
Bonneville Power Administration
PO Box 12999
Portland OR 97212

RE: IAP

Attached are my comments concerning the Intertie Access Policy as proposed by the Bonneville Power Administration. These comments apply only to that portion (or percent) of the intertie owned by the BPA. For the purposes of this discussion, the available intertie capacity is defined as the total intertie mwh transmission capability minus that portion dedicated to PGE, PP&L, WWP, and other entities through existing contracts.

Gene Maudlin
Commissioner

gr/8857H1

Attachment
TIE-1-22

COMMENTS BY THE PUBLIC UTILITY COMMISSIONER
ON INTERTIE ACCESS POLICY

First, I would like to thank BPA for providing me the opportunity to comment on BPA proposed Long-Term Intertie Access Policy (LTIAP). I believe that intertie access and the corresponding interregional power transactions are extremely important and should be carefully analyzed. There is a real potential to achieve substantial economic benefits for both the Pacific Northwest (PNW) and the Pacific Southwest (PSW) if a well designed Long-Term Intertie Access Policy is adopted.

My discussion is organized in the following format:

1. The goal of BPA should be to market its surplus firm and nonfirm electrical power in a manner which is consistent with sound business principles.

2. Firm power sales from the PNW to other regions should be given priority access to the intertie.

3. In determining the firm surplus load/resource balance of a utility, BPA should not use the critical water planning benchmark. Rather, BPA should use the hydroelectric capability experienced in the 1939-40 water year history for calculating the utility's firm surplus generating capability.

4. Nonfirm power sales from the PNW to other regions should be allocated in a manner similar to the manner by which they are allocated under the current Exportable Agreement with two main exceptions. The first exception is that the intertie available for allocation would no longer be the total available intertie capacity, but would equal the total available intertie capacity minus the intertie capacity allocated to firm power sales. The second exception is that the utility declared surplus generating capability should not be limited to hydroelectric generation as BPA proposes, but should be limited to all generation that has a variable operating cost no greater than the applicable BPA nonfirm rate.

5. A utility should not be excluded from use of the intertie if the utility's resources negatively impact regional fish and wildlife programs. Instead, legal alternatives should be pursued to obtain a just solution through the court process.

I will discuss each of these five recommendations in turn.

The goal of the BPA should be to market its surplus firm and nonfirm electrical power in a manner which is consistent with sound business principles.

It appears that the BPA has seriously considered a Long-Term Intertie Access Policy such that BPA is assured the transmission capability to market any amount of power it desires. Simply put, one option considered was to maximize BPA's share of the nonfirm market. The policy of maximizing market shares, or just mwh sales, is often inconsistent both with the concept of maximizing net revenues and with general sound business principles.

For example, most businesses will adopt a marketing policy that maximizes the margin on its sales. BPA should, too. BPA should realize that it need not maximize its kwh sales in order to receive the maximum revenues or margin.

In fact, there are numerous marketing policies that would allow BPA to earn the same or more revenues as its proposed LTIAP, and also would allow non-BPA utilities to make interregional sales. Under such a policy, the BPA's total mwh sales might decrease, but its revenues would not. In addition, the quantity of energy that would be transmitted to the PSW would remain roughly the same.

I believe BPA has moved in the direction discussed above with the policy of firm displacement sales. Such progress should not be undermined by considering market maximizing nonfirm strategies.

Firm power sales from the PNW to other regions should be given priority access to the intertie.

There are two main reasons why interregional firm power sales should be given priority access to the intertie. First, the seller benefits because the price for firm power is usually substantially higher than the price for nonfirm power. The resulting increase in revenue allows the seller to postpone requests for rate increases. Second, the buyer of firm power benefits because firm power purchases allow the buyer to revise his current operating practices and postpone the need for additional power plants. As a result, the purchaser of firm power is able to reduce his overall cost of supplying electricity. This benefit of firm power purchases is responsible for the price differential between firm and nonfirm power transactions.

BPA also receives a substantial benefit from facilitating firm power sales by other PNW utilities through granting firm intertie access. The benefit results from reductions in Average System Cost (ASC) of utilities exchanging power with BPA through the Regional Power Act. The reduction in ASC is passed onto BPA dollar for dollar for all qualifying loads.

Because the benefits of firm power sales are far greater than the benefits of nonfirm power sales to both the buyer and the seller, firm power sales should be given priority access to the

intertie. The BPA should offer, at a fair and equitable price, firm access to the intertie for both short-term and long-term contracts.

In determining the firm surplus load/resource balance of a utility, BPA should not use the critical water planning benchmark. Rather, BPA should use the hydroelectric capability experienced in the 1939-40 water year history for calculating the utility's firm surplus generating capability.

BPA proposes to use Exhibit B to calculate the utility's average firm energy surplus which in turn limits the maximum amount of Assured Delivery. This criteria is too conservative and inhibits economic long-term firm sales from taking place. A more sensible approach would be to assume the hydroelectric capability experienced in the 1939-40 water year history for calculating the utility's firm surplus generating capability. The 1939-40 water year is a reasonable choice since it represents roughly the midpoint between critical and average hydroelectric capability. By using greater than critical water capability, utilities could negotiate firm sales to the PSW for longer duration. Firm sales for longer duration directly translates to higher sales prices and greater benefits to both the PNW and PSW.

Nonfirm power sales from the PNW to other regions should be allocated in a manner similar to the manner by which they are allocated under the current Exportable Agreement with two main exceptions. The first exception is that the intertie available for allocation would no longer be the total intertie capacity, but would equal the total intertie capacity minus the intertie capacity allocated to firm power sales. The second exception is that the utility declared surplus generating capability should not be limited to hydroelectric generation as BPA proposes, but should be limited to all generation that has a variable operating cost no greater than the BPA applicable rate.

In determining the allocation of the intertie in order to market nonfirm power to the PSW, the general principles of the current Exportable Agreement should be maintained. The Exportable Agreement has provided the opportunity for the PNW to market its surplus nonfirm power in a structured format. It would be economically sensible for BPA to adopt a new and improved version of the Exportable Agreement. Otherwise, a disproportionate market power would be transferred to the PSW. When the BPA declares that the Exportable Agreement, or its successor, is in effect, all of the PNW utilities and/or agencies which desire to make nonfirm sales would determine, and notify the BPA, of the amount of their surplus energy generating capability which they offer to nonfirm sales. The BPA would also estimate its surplus generating capability which it wants to offer for nonfirm sales and include it in the total declared nonfirm surplus. Each utility and/or agency should be allocated a share of the available intertie, according to

the proportion of the total economic declared surplus that it contributes. The available intertie would equal the total available intertie capacity minus the intertie capacity dedicated both to existing contracts and new contracts made possibly by selling firm intertie access. After the shares of the available intertie are determined, each utility would make available to the BPA the amount of allocated nonfirm power which would then be marketed by the BPA to the PSW.

In deriving each utility's surplus generating capability, BPA has proposed to consider hydroelectric generation only. I recommend BPA drop this proposal and adopt an intertie allocation based on each utility's declared surplus generating capability that has a variable operating cost no greater than the applicable BPA nonfirm rate. This alternative proposal is more equitable than the BPA proposal and recognizes that the PNW region is one that is cooperative in spirit in serving load at the least cost. BPA should not claim that it is unfairly treated under the alternative proposal, because BPA should maintain a certain allocation advantage. The advantage is that BPA would be allowed to continue to declare as its surplus generating capability, the instantaneous hydroelectric peaking capability. Using an instantaneous capability declaration is an advantage since the hydroelectric capability over a 10-hour or longer time frame is significantly less. And there is no reason to expect that Exportable Agreement situations last only one hour, but in fact may last many hours. Allowing utilities to declare surplus generating capability that includes all generation that has a variable operating cost less than the applicable BPA nonfirm rate also acknowledges that the low cost thermal generation provides benefits to the region through thermal and hydroelectric coordination and reserves.

Finally, if BPA adopts the alternative allocation proposal, it seems equitable for utilities wishing to participate in the nonfirm declaration, that those utilities with intertie rights make available its unused portion of the intertie. The intertie would be made available only in those hours that the utility wishes to participate in the nonfirm declaration unless such choice for participation is overridden by specific intertie contracts (i.e., PP&L). The utility should be able to decide for each hourly declaration whether or not it chooses to participate and thereby make its unused intertie capability available. If the utility does make its intertie available, then the utility should be able to charge BPA's transmission rates for all nonfirm sales wheeled on its intertie capacity.

A utility should not be excluded from use of the intertie if the utility's resources negatively impact regional fish and wildlife programs. Instead, legal alternatives should be pursued to obtain a just solution through the court process.

While I am extremely concerned about fish and wildlife issues and support their relevance in any regional energy plan, I do

not believe that access to the intertie is an appropriate tool for enforcing compliance with fish and wildlife policies. I recommend that legal avenues be pursued against parties which are violating fish and wildlife programs. I make this recommendation because I do not believe that BPA should be both jury and judge in regard to consistency with fish and wildlife programs. Clearly, hydro regulations with respect to the fish flush are highly complex with many positions being quite defensible and justifiable. Also, I make this recommendation because the monetary penalty of denying intertie access may not be closely related to the fish and wildlife cost of violating regional fish and wildlife programs. No doubt if BPA did deny access to the intertie, the utility in question would seek legal intervention anyway. Therefore, time and effort could be conserved if legal solutions were pursued if and when a utility violates a fish and wildlife program.

gr/8857H2

UTAH DEPARTMENT OF HEALTH

Norman H. Bangerter

Suzanne Dandoy, M.D., M.P.H.

538-6108

Ms. Donna L. Geiger
Long-Term FAP
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

RE: Environmental Review

Dear Ms. Geiger:

Staff of the Bureau of Air Quality have reviewed your environmental impact statement for the transfer of surplus energy from the Pacific Northwest to California. From our review, this transfer of surplus energy to markets in California would not adversely impact the air quality in Utah. The impact that would result from this transfer of energy would be a net decrease in the energy that is transferred from Utah to California. Intermountain Power Project (IPP) was designed and constructed to provide power to Southern California. This facility began operation in January of 1986, and presently consists of two 750 megawatt generation units that are expected to be operating at 85% of their capacity in 1987. Also, in 1987 these two units are expected to operate in this projected level burning 2,830,000 tons of coal a year or 323 tons of coal per hour per boiler. This transfer of power will have an impact on the energy produced and may result in a decrease in the net emissions expected from this plant.

We appreciate having the opportunity of reviewing and commenting on this environmental impact statement.

Sincerely,

Robert P. Dalley
Planning Section Manager
Bureau of Air Quality

JLT/jg
3468Q

December 29, 1986

Mr. James J. Jura
Administration
Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

SUBJECT: Intertie Development and Use
PNRS #: OR861027-053-4

Thank you for submitting your draft Environmental Impact Statement for State of Oregon review and comment.

Your draft was referred to the appropriate state agency for review. The Department of Fish and Wildlife offered the enclosed comment, which should be addressed in preparation of the final Environmental Impact Statement.

Sincerely,

INTERGOVERNMENTAL RELATIONS DIVISION

Dolores Streeter
Clearinghouse Coordinator

DS:nl:0667t

enclosure

OREGON INTERGOVERNMENTAL PROJECT REVIEW

State Clearinghouse
Intergovernmental Relations Division
155 Cottage Street N. E.
Salem, Oregon 97310

Phone (503)378-3732 or Toll Free in Oregon 1-800-422-3600

STATE AGENCY REVIEW

Project Number: OR 86 1027-053-4 Return Date: DEC 05 1986

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

If you cannot respond by the above return date, please call to arrang an extension at least one week prior to the return date.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project has no significant environmental impact.

( ) The environmental impact is adequately described.

(X) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement.

( ) No comment.

BPA: Intertie
Remarks

see attached comments.

Agency [illegible] By J. Frost
229-5679

IPR #5

Oregon Department of Fish and Wildlife
Comments: OR 861027-053-4
BPA Proposed Intertie Access Policy

Background

Bypass systems for diverting downstream salmon and steelhead migrants away from power generation turbines are lacking at The Dalles, Ice Harbor and Lower Monumental dams as well as at four mid-Columbia PUD projects. Spill is required on an interim basis to provide protection to these juvenile salmon and steelhead in order to increase their survival as they migrate downstream. The NPPC has adopted a 90% per project survival standard that must be met by spill at those federal projects lacking bypass systems. Higher levels of spill proposed by the cooperating agencies, tribes and NPPC staff have routinely been rejected by the Council because of "excessive cost." Some supplementation of Council mandated spills has been possible only due to the availability of surplus spill (water in excess of available market).

Concerns

1. Out of region energy sales made possible by the Intertie expansion will virtually eliminate surplus energy in most years and thereby eliminate the possibility of spilling for fish protection within the region even though mechanical bypasses are not yet installed at all projects.

2. The increased market will increase the cost of spill to be provided under the NPPC's Program and may cause the Council to make further adjustments to its survival standard for downstream migrant protection. The current 90% survival standard now used by the Council is deemed inadequate by many, therefore, any reductions of spill will have major affects on salmonid survival.

3. Spills provided by the mid-Columbia PUD's under a Stipulated Agreement have frequently been supplemented by surplus federal spill that is transferred from lower river Corps projects when benefits for fish are judged to be greater upriver. Intertie expansion, with its increase in firm power capability, will result in federal spill no longer being available. As a result, reduction in the use of this spill for fish survival is expected.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

OFFICE OF THE CHAIRMAN

970 BURRARD STREET
VANCOUVER, B. C.
V6Z 1Y3

24 December 1986

TIE-1-25

Mr. James J. Jura
Administrator
Bonneville Power Administration
P. O. Box 3621
Portland, Oregon
U. S. A. 97208

Dear Jim:

Proposed Long Term Intertie Access Policy

I am writing with regard to the draft Long Term Intertie Access Policy (LTIAP) issued by Bonneville Power Administration (BPA) on 22 October 1986. BPA has requested comments on the LTIAP by 2 January 1987.

Since August 1985 I have been actively pursuing a long term sale of the Peace Site C project for markets in the U. S. Pacific Northwest (PNW) and California. Meetings were held at BPA's office in Portland on 14 November 1985 and 7 January 1986 with all the major West Coast utilities. I explained B. C. Hydro's (BCH) interest in a long term sale of Site C and repeatedly urged BPA and U. S. utilities to focus on the long term benefits of such a sale, and to put aside the short term surplus marketing problems that exist betweeen BCH and BPA.

On 12 June 1986, BCH, BPA and nine other U. S. utilities signed an agreement to investigate the technical and legal aspects of a long term Site C sale. These studies are almost completed and, as you are undoubtedly aware, a need has been identified by PNW and California utilities for at least six times the output of the Site C project by the mid-1990's. In BCH's view, the only significant stumbling block in completing a long term contract for Site C is BPA's LTIAP.

. . ./2

Incoming to: Robertson/Geiger

cc: JJJ, RER, SGH, Sienkiewicz, Spigal, Tupper

BCH is extremely disappointed in the intertie allocation process under the draft LTIAP for Canadian extraregional resources (Ref. Section H - Special Provisions for Canadian Resources). This draft policy does not recognize the long term benefits to the U. S. PNW and California from a Site C sale as it specifies that Assured Delivery would only be available if BCH provides further benefits to BPA. In addition, the draft LTIAP also reconfirms the practice we have experienced under the Near Term IAP that BCH will be last in line for access to the Pacific Intertie under Conditions 2 and 3. Any such access is further aggravated by cost penalties that BPA imposes on BCH through imposition of Northern Intertie wheeling charges.

As a long term member of the Northwest Power Pool and the Western Systems Coordinating Council, and as the Canadian Entity in the Columbia River Treaty, BCH has been a party to many transactions which have provided substantial benefits to BPA, PNW and California over the past twenty years. Recent joint BCH-BPA Columbia River Treaty studies have identified many other opportunities for increased mutual benefits in the future.

However, with BPA's continuing failure to recognize the substantial benefits to BPA that already occur through interconnection with BCH, I am extremely doubtful whether it will be possible for our two systems to take advantage of these future opportunities. It was our hope that the Long Term policy would transcend the short term marketing problems that were dealt with under BPA's Near Term IAP. We urge you to reconsider the extremely restrictive conditions for BCH access in the 22 October draft LTIAP.

Yours truly,

Chester A. Johnson

cc: Donna L. Geiger
Public Involvement Manager

STATE CLEARINGHOUSE REVIEW CERTIFICATION FORM SCR-2

TO: Donna L. Geiger, Public Involvement Manager DATE: 12/30/86

TITLE: Intertie Development and Access Policy DEIS

APPLICANT: Bonneville Power Administration

STATE APPLICATION IDENTIFIER (SAI) NUMBER: NM 87 10 29 197

FEDERAL CATALOG NO.: _____

FEDERAL AGENCY: _____

PROPOSED FUNDING (PER 424 FORM)	AMOUNT
FEDERAL	$
APPLICANT	$
STATE	$
LOCAL	$
OTHER	$
TOTAL	$

TYPE OF ACTION

( ) Preliminary Review
( ) Final Review
( ) State Plan/ Area Plan
(X) Draft Environmental Impact Statement

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG #: TIE-1-26
RECEIVED DATE:
JAN 5 1987
AREA:

REVIEW RESULTS

_____ Proposed action is supported.

_____ Proposed action is not in conflict with State, Areawide or Local Plans.

__X__ Comments are attached for submission with this proposed action.

Clearinghouse Review Coordinator
Environmental Review Coordinator

TO THE APPLICANT N/A

You may now submit your application package, this form, and all review comments to the Federal or State Agency(ies) from whom action is requested.

Please notify the State Clearinghouse (single point to contact) of any changes in this project. Refer to the SAI Number on all correspondence pertaining to this project.

Victor Rose for JPS

Director and SPOC
Title

12/30/86
Date

Distribution:

White: Federal Agency
Green: Applicant
Canary: Clearinghouse

DEPARTMENT OF FINANCE AND ADMINISTRATION
MANAGEMENT AND PROGRAM ANALYSIS DIVISION
STATE CLEARINGHOUSE BUREAU

424 State Capitol
Santa Fe, NM 87503
Environmental Review:
Governor's Office
(505) 827-3000

M E M O R A N D U M

Date: October 29, 1986

Refer to SAI No: NM 87- 10 - 29 - 197

To: Charles Roybal, Deputy Secretary, EMD

From: John Brown

Subject: Intertie Development and Access Policy DEIS

You are requested to act as the **lead State agency** for review and comment on the subject document, pursuant to the Governor's Executive Order 83-73, which requires interagency coordination of intergovernmental consultations regarding proposed federal and federally-supported or assisted actions.

A. Please **forward** copies of this document (if available) to interested and concerned state agencies, together with a Form SCR-1 for each agency's use in returning comments to you. (Comments may be attached to the form.) Initial scanning suggests the following agencies (at least) should be consulted:
EID (air quality); ED&TD (economic impacts); Transportation.

B. The initial priority level (1, 2 or 3) assigned to the proposed actions covered by the subject document is circled below. Your response should be geared to the appropriate level. (If your review indicates a higher priority should be assigned, please respond to that level.)

Level

1 For major federal or federally-supported actions which may significantly affect a region or the state as a whole, **prepare a draft "official State recommendation"** for the Governor's signature, including a discussion of the principal issues raised by reviewers and his proposed position on each. If there are conflicting comments among reviewing agencies regarding issues, or if there are policy concerns to which the Governor should be alerted, **prepare a separate memorandum** outlining these problems. Attach all responding agencies' comments, and return completed Form SCR-1 with comments to the Clearinghouse by the due date indicated below.

(2) For other important projects or actions of less environmental significance, **forward completed SCR-1 with agency comments** to the Clearinghouse by the due date below. Attach a cover letter if necessary indicating any problems encountered in the review process. An official "State Process Recommendation" will not be required unless significant issues are raised by reviewing agencies.

3 Documents in this category are "potential issues" which do not demand a response unless you judge one to be appropriate. **If you reply, do so through the Clearinghouse.**

C. Please **ensure** your response reaches me by 12/1/86.

Thanks for your assistance. Please call if you have questions or problems.

NEW MEXICO
Public Service Commission
MARIAN HALL - 224 EAST PALACE AVENUE
Santa Fe, New Mexico
87503
(505) 827-6940

TONEY ANAYA
GOVERNOR

MARILYN C. O'LEARY
CHAIRMAN
JOAN T. ELLIS
COMMISSIONER
BRUCE M. ROLSTAD
COMMISSIONER

M E M O R A N D U M

To: Tom Devlin, Energy Analyst

From: Gilbert P. Quintana, Public Utility Engineer GPQ

Subject: Intertie Development and Access Policy DEIS

Date: November 20, 1986

The proposed intertie may have effects on the production and use of coal reserves in the Farmington, New Mexico area. This could come about through a decrease in generation and sale of power from PNM's power plants to targeted consumers in southern California throught increased competition from hydroelectric sources in northern California. The proposed intertie targets many of the utilities to whom PNM currently sells thermal electric power.

Another possible effect of the proposed intertie could be in the increase or decrease of electric rates to New Mexico consumers serviced by PNM. This would depend on the effect that hydroelectric competition would have on PNM's firm sale contracts to California. The most probable effect would be the loss of some firm contracts due to competition. This may cause, in the long term, an increase in rates to New Mexico consumers.

If you have any questions please call me at 827- 6950.

cc: Robert Castillo, Executive Director
Gary Roybal, Engineering Manager

STATE CLEARINGHOUSE REVIEW (SCS) PROCESS SCR-1

(Upon completion return this form to the State Clearinghouse)

[ ] Application
[X] Draft Environment Impact Statement
[ ] State Plan

TO: EMD - Charles Roybal
FROM: John Brown

The attached proposed action is submitted to you for review and comment. Please return this completed form by 12/1/86

A. Title INTERTIE DEVELOPMENT + ACCESS POLICY
2. Applicant BONNEVILLE POWER ADMIN.
C. State Application Identifier (SAI) No. NM 87-10-29-197

1. To the best of your knowledge, does the proposed action conflict with any applicable statute, policy, order, or regulation?
[X] Yes If "Yes" please cite conflict on the reverse side. See attached memorandum.
[ ] No

2. Describe any concerns, suggestions or means of improving or strengthening the proposed action. Please note comments on reverse side. See attached memorandum.

3. Does the proposed action duplicate any activities which are geared towards the same target group?
[ ] Yes If "Yes" please identify on the reverse side.
[X] No

4. Identify the masterplan or the comprehensive plan that this proposed action relates to (does not apply)
Is the proposed plan compatible with the plan?
[ ] Yes
[ ] No If "No" please cite conflicts on the reverse side.

5. Identify the block grant, if any, which the proposed action relates to.
None

RECOMMENDED ACTION

[ ] Proposed action is supported
[X] Proposed action is supported with recommendations on reverse side See attached memorandum.
[ ] Proposed action is not supported. Note comments on reverse side

Tom Dale 12/15/86
Reviewer/Date

Energy and Minerals Department
Agency

cc: [ ] Applicant: This acknowledges receipt of your proposed action and it is now under clearinghouse review.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

525 Camino de los Marquez
Santa Fe, New Mexico
87501

TONEY ANAYA
GOVERNOR

December 16, 1986

MEMORANDUM

TO: JOHN BROWN

FROM: CHARLES ROYBAL

SUBJECT: COMMENTS PERTAINING TO THE BONNEVILLE POWER ADMINISTRATION'S (BPA) DRAFT ENVIRONMENTAL IMPACT STATEMENT ON THE "INTERLINE DEVELOPMENT AND USE" PLAN

1. There are several potential conflicts between the State's utility policy, emphasizing adequate supply of affordable and reliable electricity, optimal use of existing resources and continued economic viability of the state's utility industry, and several of the proposed options set forth in BPA's draft EIS. There are two primary actions that are under consideration in the draft EIS. The first action is to increase the transmission capacity of the Pacific Northwest-Pacific Southwest Intertie and the second is to develop a long-term policy for access to the Intertie. EMD's concerns with the draft EIS specifically relate to technical and marketing considerations.

   Technical Issues - The existing Intertie is capable of operating at a total capacity of 5,200 megawatts. There are two BPA projects to increase capacity on the transmission system. The first, already underway, is the Terminal Expansion Project which when completed in 1988 will increase the carrying capacity of the existing DC line by 1,100 megawatts. The second project, the proposed Third AC line, would provide 1,600 megawatts of additional capacity. Development of both the Terminal Expansion and Third AC projects would increase Intertie capacity to 7900 megawatts. The net present value of both projects is $472 million. Uprating of the existing Intertie would be beneficial to New Mexico to the extent that there could be a significant alleviation of the current stress on the entire Western System Coordinating Council's transmission system. The system is now being operated to provide the greatest economic advantages deemed possible, but this mode of operation is creating greater risks to system reliability because of reduced operating margin. BPA's uprating projects could mitigate system stress which particularly plagues the inland southwest and improve reliability all along the system. These improvements, however, are not guaranteed under all of the options being considered in the Long-Term Intertie Access Policy (LTIAP).

OFFICE OF THE SECRETARY
(505)827-5950

ADMINISTRATIVE SERVICES DIVISION (505)827-5925
CONSERVATION & MANAGEMENT DIVISION (505)827-5860
MINING & MINERALS DIVISION (505)827-5970
OIL CONSERVATION DIVISION (505)827-5800
RESOURCE & DEVELOPMENT DIVISION (505)827-5900

Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87501

The LTIAP will address several major issues, all of which involve tradeoffs between revenue and reliability. EMD is concerned that the LTIAP might too heavily favor increased revenues to northern and southern Pacific utilities over the value of improving and maintaining total system reliability. This eventually could result in capacity increases of a magnitude that would place the inland southwest in the same perilous situation that now exists.

Marketing Issues - EMD has no problem with BPA advocating the transfer of firm and non-firm sales between the Northwest and California to mitigate the existing load/resource imbalance. EMD does not, however, see the net benefits of a policy that would allow, and thus encourage, development of additional large generating capacity in the Northwest and perhaps also British Columbia when there exists abundant generating resources in the inland southwest to satisfy regional demand. Such a policy would explicitly encourage a regional misallocation of resources which could be further exacerbated by the inherent uncertainty associated with attempting to project long-range loads and resources to justify major capacity additions. It would also fail to recognize the benefits and the potential capacity-equivalence of energy conservation, cogeneration, and demand-side management to meet future loads.

2. BPA's Long-Term Intertie Access Policy will consider several major issues including: non-firm allocation procedure, firm export sales, access for new resources, and extraregional access. EMD submits the following recommendations:

Non-firm Allocation Procedure - When determining the Intertie access limits for non-firm economy sales, the LTIAP should not allow a few utilities' potential for revenue enhancement to overshadow the importance of adequate system reliability to all regional utilities.

Firm Export Sales - The LTIAP should permit long-term firm power contracts between Northwest and California utilities as long as the power is produced from existing resources and until such time as the load/resource imbalance is corrected. Such a policy would allow for both the deferral of capital investment in new generating resources and the displacement of the most expensive generating resources throughout California and would provide for higher use of existing resources and increased revenues in the Northwest.

Access to New Resources - There are three options of accessing power from new resources to the Intertie that are under consideration in the draft EIS. First, resources could be limited to non-firm sales only. Second, new resources could have access on the same firm and non-firm basis as existing resources. As already mentioned, with the amount of existing generating capacity throughout the West, adoption of this option would foster a regional misallocation of resources and would be inappropriately short-sighted and self-serving, particularly for a federal agency. Third, new resources could be assured delivery access to the Intertie only after the load/resource imbalance in the WSCC region is corrected. EMD recommends this option and believes it to be the most prudent choice given the magnitude of existing excess generating capacity in the West.

Extraregional Access - Canadian utilities currently receive access to the Intertie only on a hourly, non-firm allocation basis and only when there is unused transmission capacity on the Intertie. EMD recommends that this policy remain unchanged.

DIVISIONS
Light
Water
Belt Line

Please address reply to
City of Tacoma
Department of Public Utilities
P.O. Box 11007
Tacoma, Washington 98411
(206) 383-2471

City of Tacoma
WASHINGTON

DEPARTMENT OF PUBLIC UTILITIES
E. E. Coates, Director

December 31, 1986

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administrator
P. O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

The City of Tacoma, along with other public generating utilities in the Pacific Northwest, is concerned about the proposed Long Term Intertie Access Policy (Long Term IAP) and the potential adverse economic and operational impacts that could be felt within the region if the plan was adopted in its present form. We participated in the preparation and fully support the comments submitted to your office on behalf of the Public Generating Pool, however, Tacoma has some additional comments regarding the proposed Long Term IAP, which are as follows:

DEFINITIONS

Section A(3), page 1

"Uncontrollable forces," are specified as the only means by which *Assured Delivery* can be interrupted, yet no definition is provided to establish what theses *forces* are. *Uncontrollable forces* should be clearly defined in a manner that is correspondingly similar with how they were defined in Exhibit B, page 2, in the General Contract Provisions of Bonneville's Power Sales Contracts. This would provide all parties with the necessary information to enable a complete understanding of the intended scope of assured delivery interruptions and hopefully minimize any future misunderstandings.

Section A(7), page 1

Existing Pacific Northwest Resources are defined as Pacific Northwest resources that were operational on September 7, 1984. This definition should be expanded to encompass the original intent of the Regional Act, which was to give transmission service priority to those projects which were operational or under construction as of the date of the Act.

Section A(10), page 2

The *"New Hydroelectric Plant"* definition should not include uprating and the addition of units at existing hydroelectric power plants. *New Hydroelectric Plants* should be those totally new resources for which construction began after September 7, 1984. This modification would clarify the status of these type of resource additions so as to avoid any confusion.

CONDITIONS FOR INTERTIE ACCESS

Section C(3), Item c(2), page 4

This section presently states that Assured Delivery will not be provided if the operation of Qualified Pacific Northwest Resources, including New Hydroelectric Plants, is not in compliance with applicable licenses, permits or other provisions of state or federal law. Only those projects not under the jurisdiction of the Federal Energy Regulatory Commission (FERC) should be specifically required to comply with state law and then only those laws which are applicable to power generation plant operation.

Section C(6), page 5

This section restricts Intertie access to the southwest market if a scheduling utility has any unused access to any southwest utility through transmission contract or ownership. Although the application of this provision to non-firm sales is not always desirable, it is nonetheless understandable when viewed from the Bonneville Power Administration's (BPA) perspective. However, it definitely should not be applicable to firm sales, which by their nature are customer specific. Future participation by a utility in the development of a new transmission source should not adversely affect assured Intertie access for existing firm sales contracts when the new transmission source does not provide a path to that existing southwest customer.

ASSURED DELIVERY FOR INTERTIE ACCESS

Section E, Item 1, pages 5 and 6

The mechanisms which establish Assured Delivery assignments are delineated in this section along with reference to Exhibit B, which contains a list of utilities and their assigned firm access amounts. Exhibit B is revised from time to time as the average firm surplus of each utility is modified in compliance with the provisions of Section E. Exhibit B also includes a provision under which a utility's assured delivery amount can be increased by a factor of 1.8 during certain months. The BPA has indicated that they do not intend to revise the 1.8 multiplying factor, therefore, it should be removed from Exhibit B and included along with the other provisions which determine Assured Delivery in Section E.

Section E, Item 2, page 6

A scheduling utility, under the proposed Long Term IAP, will be required to enter into a long term wheeling contract with BPA in order to acquire firm intertie access. There is currently no information available that defines the contents or provisions of the proposed wheeling contracts. In order to ensure the integrity of the Long Term IAP and adherence to the Regional Act's prescription for comprehensive public involvement in the development of program policy, the proposed long term wheeling contracts must be simple in form and only define such basic elements as the parties involved, term, Assured Delivery, etc. All provisions that define or infer policy in relation to the Intertie must be included in the Long Term IAP, not in the wheeling contracts.

Those firm power contracts, such as Tacoma's firm sale to the Western Area Power Administration, which were negotiated in good faith and have demonstrated compliance with previous Intertie policy should not be adversely affected by the Long Term IAP.

Section E, Item 4, page 7

Seasonal exchanges are power transactions which can be economically and operationally beneficial to utilities in both the Pacific Northwest and Southwest. Assured Delivery will not be granted under the proposed Long Term IAP for seasonal exchanges until the Administrator determines that BPA is within a planning horizon of load/resource balance, yet this planning horizon is not defined. The problem is further intensified by BPA's unlimited ability to contract with the Southwest for exchanges, thereby shifting the planning horizon to some undefined future date. This lack of a definitive date adversely impacts the already difficult planning process that utilities must follow for the timely development of new resources. A specific date should be established when Assured Delivery will be granted for exchange contracts. It is recommended that the Administrator establish a specific date which, for example, could correspond with the completed uprating of the Intertie to 7900 megawatts.

FORMULA ALLOCATION METHODS

Section F, pages 9 and 10

Although the allocation formula and methodology for the assignment of access to the Intertie is reasonably well defined in the Long Term IAP, the declaration process is not. The declaration process should be better defined and administered. Under both the Near Term IAP and the Long Term IAP, a utility could make a declaration and include those resources they have no intention of operating, such as combustion turbines, in order to get a higher allocation. The BPA must more clearly define what resources can be declared in order to ensure a fair and equitable distribution of access to the Intertie among the scheduling utilities of the region.

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES

PROCEDURES FOR REVIEW OF COMPLIANCE AND REMEDIES

Section I, pages 12-14

The BPA has acknowledged that the proposed Long Term IAP is intended to be used to punish those utilities which, in the Administrator's determination, have operated a resource in a manner that is detrimental to fish and wildlife. This disciplinary action goes so far as to punish those utilities whose alleged detrimental resources are shut down and not operational.

The Federal Energy Regulatory Commission (FERC) more than adequately regulates hydroelectric resource operations and should remain the exclusive regulatory body for this purpose. Section I of the Long Term IAP should be totally deleted because it places BPA in a regulatory agency position for which it has questionable authority. Any attempt by BPA to place additional requirements on resource operations as a condition for Intertie access will only undermine the FERC's authority, confuse and complicate an already intensely regulated area, and possibly require changes in resource operations that might interfere or seriously conflict with elements of the project license issued by the FERC.

Yours very truly,

James E. Thompson
Superintendent
Light Division

United States Department of the Interior

BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
FEDERAL BUILDING & U.S. COURTHOUSE
BOX 043 - 550 WEST FORT STREET
BOISE, IDAHO 83724

IN REPLY REFER TO: PN 150

JAN 6TH 1986

Ms. Donna L. Geiger
Public Involvement Manager SJ-L2
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

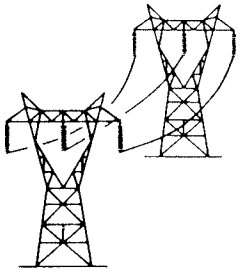
Our December 24, 1986, letter, concerning the draft environmental impact statement on the Bonneville Power Administration's proposed Intertie Development and Use (IDU DEIS), should be considered the Bureau of Reclamation's preliminary comments as a cooperating agency. The Department of the Interior's formal letter of comment is forthcoming and should reach your office prior to the review deadline, as extended, January 16, 1987.

Thank you again for the opportunity to review, and comment upon, the IDU DEIS. Please let us know if we can provide any interim information on our comment process.

Sincerely yours,

Acting Regional Director

cc: Director, Office of Environmental Project Review, Office of the Secretary, Department of the Interior, Washington, D.C. 20240
Commissioner, Bureau of Reclamation, Washington, D.C.; Attn: Code 150
Roy B. Fox, Environmental Coordinator, Office of Power and Resources Management, PGC, Bonneville Power Administration, P.O. Box 3621, Portland, Oregon 97208



TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

P.O. Box 661030, Sacramento, CA 95866 (916) 924-1196

January 7, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999 - ALP
Portland, OR 97212

Re: SJ-L2 INTERTIE DEVELOPMENT DOCKET

Dear Ms. Geiger:

The Transmission Agency of Northern California is pleased to provide the enclosed comments on the Bonneville Power Administration's (BPA) Draft Environmental Impact Statement on Intertie Development and Use.

We appreciate BPA's efforts to expand the mutual benefits that our Regions can receive through increased Intertie capacity. BPA's staff are to be commended for their fine work on this EIS.

Sincerely,

James W. Beck
Chairman, Transmission
Agency of Northern California

cc: James W. Jura

Enclosure

COMMENTS ON

THE

INTERTIE DEVELOPMENT

AND USE

DRAFT ENVIRONMENTAL IMPACT STATEMENT

BY THE

TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

JANUARY, 1987

COMMENTS ON
THE INTERTIE DEVELOPMENT
AND USE
DRAFT ENVIRONMENTAL IMPACT STATEMENT

The Transmission Agency of Northern California welcomes the opportunity to comment upon the Intertie Development and Use (IDU) Draft Environmental Impact Statement (DEIS) which was prepared by the Bonneville Power Administration (BPA).

The Transmission Agency of Northern California (TANC) is a California joint powers agency with fifteen Member utilities in Northern and Central California. We were instrumental in proposing and developing the California-Oregon Transmission Project (Project) which will provide a third, 500-kV AC transmission line from Southern Oregon to Central California as part of the Pacific Intertie.

We appreciate BPA's efforts to develop the IDU DEIS in a manner that complements the environmental work we are conducting for the Project.

In general, we believe the IDU DEIS adequately and fairly depicts the environmental impacts from changes in resource operation due to expanded Intertie development and in concert with the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Project, the IDU DEIS will support an enlightened, judicious decision making process.

We recommend that the Decisions to Be Made (Summary, Section C, page S-1) be clarified to indicate that the specified future BPA decisions are not necessarily required in the same time frame, nor are they totally interdependent. If BPA, for example, chose to delay its decisions on the Intertie Access Policy, such delays do not translate into delays for the Project EIS/EIR process or to delays in the construction of the Project. While the environmental impacts of some of the proposed

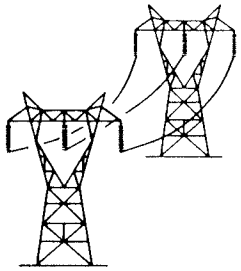
actions are interrelated, the actions themselves may be undertaken separately and on different time lines.

The following sentence should be added to Section C to clarify this concept:

> "Decisions on the California-Oregon Transmission Project and other partially related decisions may be made by the utilities involved; these decisions are not necessarily contingent upon BPA's decisions."

One minor correction should be noted on Figure 1.1: Eureka, California was incorrectly shown to be in BPA's service area. Eureka is in fact in Pacific Gas and Electric Company's (PGandE) service area; portions of Trinity County, California are served by PGandE and the Western Area Power Administration.

Overall, we commend the BPA staff for their efforts on the Draft IDU DEIS and look forward to future expanded, mutually beneficial transactions between our Regions.



TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

P.O. Box 661030, Sacramento, CA 95866 (916) 924-1196

January 7, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999 - ALP
Portland, OR 97212

Re: SJ-L2 LONG-TERM IAP DOCKET

Dear Ms. Geiger:

The Transmission Agency of Northern California (TANC) is pleased to provide the enclosed comments on the Long Term Intertie Access Policy (IAP) which is being proposed by the Bonneville Power Administration (BPA).

We can appreciate many of the reasons for development of the IAP; nevertheless, there are several areas of serious concern to us in the IAP, as noted in our comments. We believe that BPA must be particularly sensitive to the implications in California of the IAP since BPA's decisions can impact the mutual benefits that our regions will receive from the Pacific Intertie.

We appreciate the opportunity to comment on the IAP and trust that BPA will give full consideration to our comments.

Sincerely,

James W. Beck
Chairman, Transmission
Agency of Northern California

Enclosure

COMMENTS ON THE PROPOSED LONG TERM INTERTIE ACCESS POLICY

BY THE

TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

JANUARY, 1987

COMMENTS OF THE
TRANSMISSION AGENCY OF NORTHERN CALIFORNIA
ON THE
PROPOSED LONG TERM INTERTIE ACCESS POLICY

INTRODUCTION

The Transmission Agency of Northern California (TANC) is a joint powers agency which was formed by fifteen publicly owned utilities to facilitate the development of additional economic transmission service between the Pacific Northwest and California. TANC and other California utilities are Participants in the California-Oregon Transmission Project (Project), a planned 500-kV transmission line, between Southern Oregon and Central California. Members of TANC include:

- City of Alameda
- City of Biggs
- City of Gridley
- City of Healdsburg
- City of Lodi
- City of Lompoc
- Modesto Irrigation District
- City of Palo Alto
- Plumas-Sierra Rural Electric Cooperative
- City of Redding
- City of Roseville
- Sacramento Municipal Utility District
- City of Santa Clara
- Turlock Irrigation District
- City of Ukiah

The Project Participants, including TANC, have agreed to a Memorandum of Understanding and a Project Development Agreement which set forth principles for cooperation in development, construction, and operation of the Project.

Economic and equitable power purchases from the Pacific Northwest are of vital concern to the TANC Members. The Bonneville Power Administration (BPA) Long Term Intertie Access Policy (IAP) will determine much of the framework for such purchases for years to come, and it is therefore of significant interest to us. As we have stated in previous comments on the Revised Near Term Intertie Access Policy, we believe that expanded transmission capacity will support BPA's goals and objectives and will also enhance economic and reliable electric service in both the Pacific Northwest and Pacific Southwest, thereby mutually benefiting both Regions.

Several issues of significant concern to TANC have surfaced in the proposed IAP. Major areas of concern to TANC are as follows:

Seasonal Exchanges and Capacity/Energy Exchanges

We encourage BPA to allow a maximum level of Assured Delivery for firm Intertie transactions, particularly for mutually beneficial exchanges (seasonal exchanges and capacity for energy).

Many Members of TANC have load and resource characteristics which can best utilize seasonal power and capacity/energy exchanges. We are not in the position of utilizing large quantities of oil or natural gas as an alternative resource while waiting on the Northwest to enter into hydrospill conditions, when energy prices become the lowest. As Senator Hatfield has noted, this situation can be detrimental to Northwest revenues.

We are therefore quite concerned that the proposed IAP would not grant Assured Delivery or firm access as defined in the IAP for seasonal exchanges and sales or capacity/energy exchanges unless certain very restrictive conditions are met. As the proposed IAP stands now, the requirements tend to be vague and are based almost entirely on the Administrator's interpretation.

Specific concerns related to this issue include the following portions of the IAP:

1. Section E.3. - Assured Delivery for Capacity Contracts of Scheduling Utilities

A broader band of capacity transactions eligible for Assured Delivery might well be in the best interest of both regions. For example, some utilities may wish to provide seasonal capacity in excess of their average firm surplus in Exhibit B. Other provisions of such an arrangement might produce significant benefits to both parties. BPA should not limit the creativity of negotiators in both regions to develop favorable agreements.

Additional language that should be added to E.3 is as follows:

"....BPA; and

(4) support the Administrator's Power Marketing Program and are included with transactions that decrease the region's surplus of energy."

2. Section E.4. - Assured Delivery for Capacity/Energy and Seasonal Exchange Contracts of Scheduling Utilities

Section E.4. allows for Assured Delivery of capacity/energy and seasonal exchanges when BPA's "planning horizon" shows such transactions to be appropriate. What is the "planning horizon" of BPA? Perhaps a specifically-defined 10 year planning horizon would be appropriate. In the Policy Issues paper, BPA states that by 1997 "it is anticipated that the firm surplus will have disappeared." It would therefore seem logical to grant Assured Delivery for exchanges beginning in the early 1990's since 1997 is within most utilities' planning horizons. By postponing these transactions, we believe that BPA may in fact

be losing revenues that it could utilize to repay the U. S. Treasury.

We suggest that the following language be added to Section E.4: (inserted language is underlined)

"a. Until BPA is within ten calendar years of load/resource balance, ...

b. Once BPA is within ten calendar years of load/resource balance, ..."

TERM OF THE IAP

As proposed, the Long Term IAP appears to have no specific term. (Section B of the IAP). We recommend that the IAP specify a defined time period, for example 10 or 20 years, after which IAP will be reviewed and reconsidered. Longer term power sales agreements could be grandfathered to extend beyond the expiration date of the IAP.

EXTRAREGIONAL ACCESS

BPA has apparently proposed new, additional restrictions on access to the Pacific Intertie for Canadian resources. Under the current policy when BPA's Intertie capacity is unused (Condition 3), Extraregional Utilities, as defined in the policy, have Intertie access. However in the proposed Long Term IAP, BPA has added a sentence to paragraph G.1.c which might force Extraregional Utilities to seek transmission access from non-federal entities who have rights on the Intertie prior to gaining access from BPA. The intent of this apparent restriction needs to be explained and clarified.

ASSURED DELIVERY CONSIDERATIONS

Section E.2.b.(2) of the proposed IAP specified five considerations that BPA will examine in conjunction with granting Assured Delivery Intertie transmission for firm power sales. These considerations appear to be very arbitrary and could in fact serve to reduce BPA revenues, rather than to increase them. For example, the flexibility to sell non-firm energy when it is available in conjunction with a firm power sale should be allowed. Historically, this type of flexibility has been utilized by both Regions to create significant mutual benefits, - one example was the sale of Centralia power to Western in the 1970's along with non-firm energy.

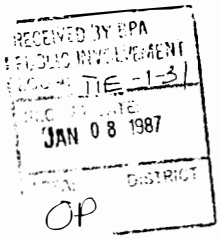
ALLOCATIONS OF NORTHWEST INTERTIE CAPACITY

It is our understanding that BPA intends to eventually allocate up to 800 MW of Intertie capacity in the Northwest. We recommend that the IAP address this capacity, since to do so would be helpful in promoting future power transactions.

CONCLUSION

The TANC Members share BPA's goal of developing expanded, mutually beneficial power transactions between California and the Pacific Northwest. We are concerned that the proposed Long Term Intertie Access Policy appears to impose limitations on economically sound purchases and exchanges. We believe that clarification and expansion of the conditions for granting Assured Delivery will work to the benefit of the ratepayers in both regions. We appreciate the opportunity to comment and look forward to working together in the future.

OREGON REVIEW COMMITTEE TESTIMONY
ON THE DRAFT INTERTIE DEVELOPMENT AND USE
ENVIRONMENTAL IMPACT STATEMENT



TESTIMONY OF MICHAEL GRAINEY
BEFORE THE BONNEVILLE POWER ADMINISTRATION
PORTLAND, OREGON
DECEMBER 10, 1986

I AM MICHAEL W. GRAINEY, DEPUTY DIRECTOR OF THE OREGON DEPARTMENT OF ENERGY. MY TESTIMONY TODAY IS ON BEHALF OF THE OREGON REVIEW COMMITTEE.

THE COMMITTEE INCLUDES THREE CITIZEN MEMBERS. EACH OF THE THREE REPRESENTS A COMMUNITY NEAR WHICH THE PROPOSED 500 KIL
GOVERNMENT REPRESENTATIVES ALSO SIT ON THE COMMITTEE. AND, STAFF FROM EIGHT STATE AGENCIES COMPRISE THE BALANCE OF COMMITTEE MEMBERS. THE DEPARTMENT OF ENERGY CHAIRS THE COMMITTEE AND IS LEAD STATE AGENCY.

THE COMMITTEE WAS CREATED BY THE DEPARTMENT A YEAR AGO AT THE DIRECTION OF GOVERNOR ATIYEH. THE INTENT WAS TO ASSURE AN OPEN PUBLIC REVIEW FORUM. THIS FORUM IS IN LIEU OF THE OPEN HEARINGS AND MEETINGS WHICH WOULD HAVE BEEN PROVIDED BY THE STATE'S ENERGY FACILITY SITING COUNCIL. THE OREGON PORTION OF THE PROPOSED POWER LINE IS TOO SHORT TO COME UNDER THE COUNCIL'S SITING AUTHORITY. THE COMMITTEE ALSO HAS BEEN THE AEGIS FOR STATE, COUNTY, AND COMMUNITY REVIEW OF THE PROJECT.

THE GOVERNOR GAVE THE REVIEW COMMITTEE THREE TASKS.

1) DETERMINE IF THE PROJECT MAKES SENSE FOR OREGON. THAT IS, WEIGH THE ECONOMIC COSTS AND BENEFITS AND MAKE A JUDGMENT ABOUT THE PROJECT'S WORTH TO OREGONIANS.

2) REVIEW ROUTING AND CONSTRUCTION CRITERIA. MAKE A JUDGMENT ABOUT HOW THE PROJECT MAY BE BUILT TO MINIMIZE THE IMPACTS IT WILL IMPOSE ON THE LAND, OUR COMMUNITIES, AND THE ENVIRONMENT.

3) MAKE SURE THAT DISCUSSIONS AND DECISIONS ARE MADE IN A FULL AND OPEN PUBLIC PROCESS.

THE COMMITTEE HAS HAS PROVIDED CREDIBLE PUBLIC FORUMS -- AND WILL CONTINUE TO DO SO.

THE COMMITTEE BELIEVES THAT IT CAN AND WILL MAKE INTELLIGENT JUDGMENTS ABOUT ROUTING AND CONSTRUCTION. WE HAVE NOT YET COMPARED THE PROJECT SPONSORS' DRAFT STUDY WITH OUR STANDARDS ON ROUTING AND CONSTRUCION.

HOWEVER, THE COMMITTEE IS NOT READY TO PASS JUDGMENT ON THE BENEFITS AND COSTS OF THE PROJECT. THE REASON IS SIMPLE. WE SIMPLY DO NOT HAVE ALL THE INFORMATION WE NEED. IN THAT RESPECT, THE BONNEVILLE POWER ADMINISTRATION'S DRAFT STUDY -- IN OUR OPINION -- IS LACKING.

THE COMMITTEE NEEDS ANSWERS TO MAKE THIS DETERMINATION. FOR EXAMPLE, WILL THE PROJECT EARN A PROFIT FOR STATE AND REGIONAL RATEPAYERS?

WILL IT RECOUP THE COSTS OF BUILDING AND USING THE LINE?

WHAT IMPACT WILL THE GENERATION OF THE ELECTRICITY FOR SALE ACROSS THE PROPOSED POWER LINE HAVE ON SALMON, STEELHEAD, AND OTHER FISH?

WHAT IMPACTS WILL THE BUILDING AND USE OF THE POWER LINE HAVE ON SOUTHERN OREGON'S ENVIRONMENT?

AND, WHAT SPECIAL IMPACTS WOULD THE LINE HAVE ON ANY ONE OF THE THREE SMALL OREGON COMMUNITIES THAT MAY BE ITS HOST?

THE COMMITTEE IS CALLING ON EXPERTS FROM BPA AND OTHER LOCAL, STATE, AND FEDERAL AGENCIES TO HELP ANSWER THESE QUESTIONS.

BPA UNDERSTANDS THE COMMITTEE'S CONCERNS. BPA STAFF HAVE TAKEN ACTIVE ROLES IN THE COMMITTEE'S WORK. THEY ARE TO BE COMMENDED FOR THEIR HELP AND COOPERATION.

BUT, THE DRAFT BPA STUDY -- THE COMMITTEE'S MAJOR SOURCE OF FACTS ON WHETHER THE PROJECT IS NEEDED AND THE IMPACTS ON FISH -- HAS DEFICIENCIES AND GAPS. IT DOES NOT YET PROVIDE ALL THE INFORMATION WE NEED TO MAKE CONFIDENT RECOMMENDATIONS TO THE GOVERNOR.

WE NEED MORE TIME TO REVIEW AND COMMENT ON THE STUDY. AND WE NEED MORE INFORMATION. FOR EXAMPLE:

* THE NEED FOR THE PROJECT MUST BE DETERMINED BASED ON BENEFITS TO THE REGION. BPA DOES NOT SHOW LIKELY INCOME AND RATE IMPACTS TO THE REGION FROM THE PROPOSED POWER LINE. WE CANNOT SAY THE PROJECT IS NEEDED IF WE ARE NOT SHOWN AN INDISPUTABLE BENEFIT TO OREGON AND THE REGION.

* THE MONEY WE CAN EARN SELLING ELECTRICITY TO CALIFORNIA DEPENDS ON THE KINDS OF SALES ARRANGEMENTS BPA AND UTILITIES MAKE. BPA'S ASSUMPTIONS ABOUT THE CALIFORNIA MARKET FOR NONGUARANTEED ELECTRICITY MAY BE TOO PESSIMISTIC. AT THE SAME TIME, BPA'S ASSUMPTIONS ABOUT THE MARKET FOR GUARANTEED ELECTRICITY MAY BE TOO OPTIMISTIC.

* THE MONEY WE CAN EARN SELLING ELECTRICITY TO CALIFORNIA STRONGLY DEPENDS ON THE UNPREDICTABLE PATH OF FUEL PRICES AND ENERGY DEMANDS. BPA'S STUDY RELIES ON A DATED FUEL PRICE FORECAST. THE STUDY SHOWS RESULTS ONLY FOR A SINGLE SET OF FUEL PRICE AND ENERGY DEMAND FORECASTS. MORE RECENT FUEL PRICE FORECASTS ARE AVAILABLE. BPA SHOULD USE AT LEAST THREE SETS OF FUEL PRICE AND ENERGY DEMAND FORECASTS TO PREDICT POWER SALES REVENUES.

* BPA MUST SHOW THAT THE GENERATION OF ELECTRICITY FOR SALE ACROSS THE PROPOSED POWER LINE WILL NOT HARM OUR FISHERIES. BPA'S RESULTS ON FISH IMPACTS NEED CAREFUL REVIEW BY THE NORTHWEST POWER PLANNING COUNCIL AND FISHERIES AGENCIES. BPA HAS ALLAYED SOME OF THE COMMITTEE'S CONCERNS BY PROPOSING TOUGH, FAIR RULES TO PROTECT FISH.

HERE ARE OUR RECOMMENDATIONS:

* BPA SHOULD EXTEND THE DEADLINE FOR WRITTEN COMMENTS TO MARCH 4.

* BPA SHOULD SHOW THE PROJECT'S RANGE OF LIKELY INCOME AND RATE IMPACTS TO THE PACIFIC NORTHWEST. THIS INCOME INCLUDES REVENUES FROM ALL FORMS OF ELECTRICITY SALES, FROM TRANSMITTING POWER FROM CANADA, AND FROM DEFERRING NEW POWER PLANTS IN THE REGION.

* BPA SHOULD SHOW THE THIRD AC LINE IS NEEDED FOR FIRM OR GUARANTEED ELECTRICITY SALES CONTRACTS TO BE SIGNED. THE BPA STUDY SHOWS THE THIRD AC LINE IS A FINANCIAL WINNER -- BUT ONLY IF FIRM SALES CONTRACTS ARE SIGNED. BPA MUST SHOW THAT THESE CONTRACTS ARE NOT JUST POSSIBLE BUT PROBABLE.

* BPA SHOULD EXAMINE AND MORE THOROUGHLY EXPLAIN ITS MODEL OF THE CALIFORNIA MARKET FOR NONGUARANTEED ELECTRICITY. THE COMMITTEE CANNOT ASSESS THE MODEL'S RELIABILITY FROM THE DRAFT STUDY. TO TEST THE MODEL, THE COMMITTEE WILL COMPARE DETAILED BPA RESULTS WITH THE RESULTS FROM PORTLAND GENERAL ELECTRIC'S ANALYSIS.

* BPA SHOULD TEST THE SENSITIVITY OF ITS RESULTS USING IT MOST RECENT FUEL PRICE AND DEMAND FORECASTS AND A RANGE OF LIKELY FIRM SALES CONTRACTS.

* BPA SHOULD CONSULT WITH THE NORTHWEST POWER PLANNING COUNCIL AND OTHER FISH AGENCIES TO VERIFY ITS FINDINGS ON FISH IMPACTS.

* AND, BPA SHOULD KEEP ITS PROPOSED ACCESS PROVISIONS TO

THE THIRD DC LINE IS AN INVESTMENT OF MANY HUNDRED MILLION DOLLARS. IF BUILT, IT WOULD AFFECT THE LIVES OF MANY SOUTHERN OREGON CITIZENS. THEY DESERVE MORE TIME TO REVIEW AND COMMENT ON BPA'S STUDY. THEY DESERVE TO SEE IF AND HOW THE PROJECT WILL BENEFIT THEM. THEY DESERVE TO SEE VALID PROJECTIONS OF PROJECT INCOME. AND THEY DESERVE TO BE ASSURED THAT USING THE POWER LINE WILL NOT HARM OR KILL THE REGION'S FISH.

TURLOCK IRRIGATION DISTRICT
P.O. BOX 949
333 EAST CANAL DRIVE
TURLOCK, CALIFORNIA 95381
(209) 632-3861 or 883-4071

December 23, 1986

Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Gentlemen,

Attached is the District's comments concerning the Proposed Long Term Intertie Access Policy.

Should you have any questions or wish to discuss this further please to contact Chris Kiriakou at (209) 632-3861, Extension 510.

Thank you for this opportunity to participate in this process.

Sincerely,

TURLOCK IRRIGATION DISTRICT

Norman C. Boberg,
Electrical Department Manager

NCB/CLK/ds
Attachment

cc: Ernest Geddes
Robert Marritz
Ferris Gilkey

COMMENTS BY TID
ON BPA"S PROPOSED LONG TERM INTERTIE ACCESS POLICY
AND DRAFT EIS ON INTERTIE DEVELOPMENT AND USE

Turlock Irrigation District (TID) is a full service utility providing electric service to over 49,000 residential, commercial, industrial and agricultural consumers in three counties in central California. TID's 1985 peak load was 242 MW, and its energy consumption that year was 988,295 MWH. TID's 1985 needs were met largely from its own resources, which included 68.46 percent of the 165 MW Don Pedro hydroelectric project; an allocation of power from the Hetch Hetchy project;; miscellaneous hydro generation associated with local irrigation; and its 4 MW allocation of power from Western Area Power Administration.

To meet its anticipated 1995 requirements, TID expects to augment these existing resources with 48 MW of its own combustion turbines, a 30 MW share of NCPA's Geysers geothermal project, and purchases from other suppliers -- either Pacific Gas and Electric Company, within whose service area TID operates, or by other suppliers within or outside California. In the expectation that sources outside California will prove attractive economically, TID has arranged through the Transmission Agency of Northern California (of which it is a member) to acquire an entitlement of approximately 90 MW in the California-Oregon Transmission Project, the southern portion of the planned third AC line which will interconnect California with the Pacific Northwest.

Because any resource TID may wish to purchase from Bonneville or a Northwest utility will be affected by policies applicable to the Northwest portion of the intertie, TID has a strong and immediate interest in the provisions of the proposed intertie policy and draft EIS. Our comments on the proposed policy and draft EIS will address portions of those documents which most affect the interests of TID and its consumers.

In general, our concern is that the intertie policy provide all Northwest systems having resources available for sale or exchange adequate and appropriate access to the Northwest portion of the intertie. We are mindful of Bonneville's obligations to operate federal facilities consistent with its statutory mandates, including its repayment obligations, its duty to provide transmission service to nonfederal utilities, and other requirements of law. However, we believe the proposed policy ignores BPA's statutory obligations in at least one important respect, and that it could be improved in other areas, as indicated below.

Section D (LTIAP)

The proposed policy would reserve for BPA sufficient intertie capacity to transmit the full amount of BPA's firm power surplus. We can understand BPA's desire to prefer its own marketing objectives in the design of the intertie policy, but doing so in the manner set forth in paragraphs 1 and 3 of this section appears to us to violate BPA's transmission obligations under section 6 of the Regional Preference Act, Pub.

L. No. 88-552 and of the Federal Columbia River Transmission System Act, Pub. L. No. 93-454. Both these laws require that BPA act, in effect, as a common carrier for Northwest utilities, and not unduly prefer itself in providing transmission service. The legislative history of these laws makes clear that BPA may not refuse to transmit power for a nonfederal utility on the basis that BPA has surplus power it wishes to sell and for which, prospectively, it may conclude a sale in the future. This, however, appears to be precisely the position BPA has taken in the proposed policy.

Since Congress has not repealed, directly or by implication, the above transmission requirements in any later enactment, BPA is constrained to act in accordance with them.

In taking this position, TID wishes to make clear that it has not decided to enter into a power sales agreement with any nonfederal utility, nor has it ruled out the possibility of doing so with Bonneville. In addition to the fact that the law requires it, TID simply believes the public interest will be better served by a policy which is more even handed as between Northwest suppliers. Such a policy will lead to a more wholesome competition of the type Congress obviously had in mind when it required BPA to wheel for nonfederal parties in the first place.

If a policy consistent with the above requirements of law appears to threaten BPA revenue collections, BPA has other means to ensure itself of having adequate revenues.

Section C.3

The provisions and legislative history of BPA's transmission requirements under the Regional Preference and Transmission System Acts specifically contemplated BPA transmitting for nonfederal parties when doing so may conflict with BPA's own marketing objectives. Accordingly, BPA's "Power Marketing Program" should be defined to incorporate these transmission requirements. It is unimportant whether these requirements are treated as an augmentation of BPA's power marketing program or as a limitation on it. What is important is the well understood rule that an agency may not create a "marketing program" rule by administrative fiat, no matter how justified it may appear, when that rule would conflict with established law. This prohibition is all the stronger when, as here, the elements of the "marketing program" are so illdefined and changeable that interested nonfederal parties cannot know, at any given time, the nature and extent of BPA's commitment to wheel, because it is constantly subject to revision by the Administrator.

The only way BPA may escape its wheeling obligation under law is to seek to change the law. If that task appears unduly difficult, it only serves to underscore the importance and durability of the obligation. While TID was not involved in the negotiations surrounding enactment of the applicable laws, it is common knowledge that BPA's commitment to

LEAGUE OF WOMEN VOTERS OF OREG.
189 Liberty Street N.E., Room 307 Salem, Oregon 97301

January 8, 1987

Donna L. Geiger
Public Involvement Coordinator
P.O. Box 12999
Portland, Oregon 97212

Re: Intertie Access D.I.S.

Dear Donna,

Because protection of Oregon's water resources is on the advocacy agenda for the League of Women Voters of Oregon, we are appreciative of the sound position taken by Bonneville Power Administration regarding Intertie Access by new power projects which bars permanently hydropower developments that have an adverse impact on fish and wildlife. We also approve the ruling which limits access to generators who were operating on September 7, 1984, until two intertie upgrades are complete. These policies reinforce the obligations of the BPA Administrator under the Northwest Power Act.

Our membership both statewide and nationally is very interested in air quality, and encourages BPA to emphasize the advantages to California in preserving air quality in the Los Angeles Basin by continuing to import electric power from the Northwest rather than burn fossil fuels. We would also like to see comparative studies of air quality effects of Northwest coal-fired generating plants both economically and environmentally which would rank them for Intertie priority.

In support of conservation the League of Women Voters would like to see incentives for non-generating utilities to participate in surplus sales with their investments in consevation. We believe there should be proposals in the Environmental Impact Statement that would make this possible, thus furthering the mandates of the Northwest Power Act.

Sincerely yours,

Kris Hudson, President

Adele Newton, Natural Resources Chair

NORTHERN PLAINS RESOURCE COUNCIL

Field Office
Box 858
Helena, MT 59624
(406) 443-4965

Main Office
419 Stapleton Building
Billings, MT 59101
(406) 248-1154

Field Office
Box 886
Glendive, MT 59330
(406) 365-2525

January 8, 1987

Re: BPA INTERTIE ACCESS POLICY

Dear Ms.Donna Geiger,

The following comments are submitted for the record regarding the draft BPA intertie access policy. These comments were prepared by the Energy Task Force of Northern Plains and represent the views of Northern Plains.

Northern Plains supports the access policy's protections that limit access to BPA transmission lines to existing northwest resources that were in service in September 1984, until such time as at least two line upgrades are made. We also strongly support the prohibition of hydropower generators that have new impacts on fish and wildlife resources. A third positive policy section fosters investment in conservation resources by NW utilities when such investment will serve to streach the energy supplies of generating utilities. But as we point out below, this arbitrarily excludes acquisition of conservation from nongenerating utilities.

The following are suggestions for improvement in the intertie policy.
1. The policy must provide protection for BPA ratepayers from imprudent utility sales of export power. The policy should require a waiver of BPA obligations to supply utilities that get into a shortage situation as a result of imprudent long term export sales.
2. The Intertie Access policy should provide mechanisms to allow non-generating utilities to invest in conservation resources and sell the freed-up power under the access policy. The policy must provide examples and mechanisms for the export of power acquired by nongenerating utilities if the policy is to meet the

Northwest Power Act requirement that conservation resources are the preferred source of new power.

3. As part of the E.I.S, Bonneville must use it's analytic resources to identify the environmentally preferred and economically preferred alternative for the mix of coal-fired generation plants that may be involved in export sales on the intertie. This analysis and identification of the preferred alternatives is necessary to clearly present the environmental effects and the economies of the plants that would be available under each alternative.

In summary, NPRC supports a balanced intertie access policy that provides protection of BPA ratepayers from imprudent export sales and that maintains conservation as the preferred source of new electrical power resources. The policy should retain the fish and wildlife protections for new hydro-power resources.

Sincerely Yours,

Mark D. Kelley
Energy Task Force

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION

Box 278
Pablo, Montana 59855
(406) 675-2700

Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
George Hewankorn -Sergeant-at-Arms

TRIBAL COUNCIL MEMBERS
Michael Pablo - Chairman
Ron Thernault - Vice-Chairman
Laurence Kenmille
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Sonny Morigeau
Fred Matt
Victor L. Stinger
Pat Lefthand
James H. Steele

January 9, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212

Dear Ms. Geiger:

Please enter this letter as the Confederated Salish & Kootenai Tribes' official comment on the BPA Proposed Long Term Intertie Access Policy.

Effective September 5, 1985 the Confederated Salish and Kootenai Tribes are serving as joint licensee with the Montana Power Company for the operation and maintenance of Kerr Dam for a period of 50 years. During the first 30 years Montana Power Company will hold the license and in the last 20 years the Tribes will hold the license upon payment of an amount representing the actual original cost of the project less accumulated depreciation of the works as defined in Commission Order VI (C)(2).

Article 50 of the license provides that when the Tribes take over ownership and operation of the project works Montana Power Company will wheel (transmit) power from Kerr Project to the Bonneville grid system at nondiscriminatory rates. This assumes the Tribes will be able to access the Bonneville intertie.

In reviewing the BPA Proposed Long Term Intertie Access Policy dated October, 1986 it becomes apparent that the proposed policy does not address the Tribes needs for access. As defined on page 1 of the policy the term "Entity" means an owner of a resource other than a Scheduling Utility. Since we don't fit the definition of a Scheduling Utility we assume to fit the definition of Entity.

wheel was at the heart of the bargain struck when those laws were enacted. Since that commitment was codified, it may not now be ignored.

Section E.4

For the reasons stated above, TID does not believe BPA has authority to refuse to provide transmission service for exchange agreements. These agreements were not excluded form the class of transactions for which BPA was required to provide wheeling service. Moreover, there is insufficient information in the draft EIS to permit BPA to conclude that the environmental impacts of reducing the level of power exchanges between the Pacific Northwest and Pacific Southwest are more or less benign than facilitating such exchanges. TID is interested in this provision because, while its principal interest is in securing a firm source of supply, it is also interested in an exchange and is well aware of the efficiencies such an exchange could provide to the contracting parties. Here again, if BPA has serious reason to believe that wheeling for exchange parties would significantly reduce BPA revenues, there are ample means available to the agency to compensate itself for the shortfall.

Section F

The formula allocation methods set forth in this section fail to take account of the requirements of the preference clause. When BPA is in a position to sell energy on a nonfirm basis, the preference provisions of the Bonneville Project Act must be taken into account. When there is no market for BPA energy in the Pacific Northwest, energy it sells out of the region must be sold in accordance with the required priority to public bodies, both as a matter of statute and established administrative policy. Accordingly, the formula allocation procedure must take account of requests for nonfirm service by public bodies in California. When such requested service is first subtracted from the intertie capacity subject to formula allocation, and intertie capacity made available for its sale by BPA to public bodies and cooperatives outside the region, the Section F formula allocation method may be appropriate.

TID appreciates this opportunity to submit its comments to Bonneville and hopes its views will be taken into account in BPA's reformulation of the policy and the underlying draft EIS.

Department of Fish and Wildlife

506 SW MILL STREET. P O. BOX 59. PORTLAND. OREGON 97207

January 7, 1987

Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

RE: Proposed Intertie Access Policy and Draft Intertie Development and Use EIS

Dear Ms. Geiger:

The Oregon Department of Fish and Wildlife has reviewed the above referenced Environmental Statement. Department concerns focus on the potential impacts of this proposed action on salmon and steelhead smolt survival at Columbia River dams. We are concerned that the proposed action will reduce spill at those Columbia and Snake river dams which rely on spill as the only means of bypassing downstream migrants around turbines. We are especially concerned now since the U.S. Army Corps of Engineers' recent announcement (December 1986) that they intend to postpone the schedule for bypass installations at The Dalles, Ice Harbor and Lower Monumental dams until the mid 1990's.

The Department maintains a strong committment to restore upriver Columbia salmon and steelhead runs through both the U.S. Canada Treaty and agency-tribal agreements (U.S. vs Oregon). We oppose any action which will diminish the use of spill to bypass juvenile downstream migrants until mechanical bypass systems are operational at all federal projects.

Sincerely,

Michael C. Weland
Assistant Director
Habitat Conservation Division

tfo

January 2, 1987
Barbara D. Rhodes
Rural Route 1, Box 1945
Libby, Montana 59923

Comments-Bonneville Power Administration Draft Environmental Impact Statement
Intertie Development and Use. October 1986. OKK

I can not understand the stance of Bonneville developing a D.C. intertie to Southern California utilities to wheel surplus power and encouraging further development of generation facilities for "acquisition prior to regional need". These developments degrade and quality of life for the citizens of the Pacific Northwest. One of the amenities enjoyed here is the pristine environment of natural streams and untrammeled mountains. Sacrifice is made by the people here to secure these values because these values are more important than blight and scars on the land. The electricity is not needed by this region. Ten years ago when you were predicting shortages conservation began to be seen as an answer to the energy dilemma. Instead of encouraging conservation you have downplayed it and it's role in freeing existing generation for load growth. This is a disservice. Bonneville has the mistaken notion that they must compete with the orderly development of free enterprise appropriate energy systems.

You say until B.P.A. is within a planning horizon of load/resource balance, as determined by the administrator, assured delivery generally will not be granted for capacity/firm or seasonal exchange contracts of scheduling utilities. Since we have a surplus this balance is a fact. However, not for the scheduling of exchange contracts, rather for the simple realization that we have enough and more than enough. You say that the system is in financial deficit, and you must therefore invest $100,000,000 for a transmission facility to transmit energy to Southern California to be sold at less than the cost of generating it. Libby Dam is an example of this. The Corps of Engineers must seek appropriation from Congress for their annual budget, regardless of the guaranteed purchase by this Federal marketing agency, because they cannot cover their operating and maintenance cost let alone repay the Federal Treasury. This course of action will increase the deficit, and is directly counterproductive to the stated goal of being consistent with sound business principles.

7900 MW of electricity will further incline gluttony on the part of people who are already inervated by superfluous electric consumption. Instead what should be happening is that conservation should be pursued and Bonneville should be in a leadership position to enable this kind of development. In problem solving the impasse is the important place to apply energy. The impasse in the orderly development of a financially solvent electric supply system that is also environmentally compatible is the unprofitability of the pursuit of site specific appropriate technology. i.e. systems that use natural energy e.g. the sun and architectural cognizance of natural energy flows. Conserving energy is the same as generating it. Utilities feel the burden of pursuing conservation as contrary to their purpose of making a profit. However the ecosystem can only support compatibly a certain level of development. Therefore, the important function of Bonneville is to offer incentive to the utilities to develop conservation. Since Bonneville has negotiated 20 year contracts with the utilities it will be necessary to offer an incentive to renegotiate. Utilities that are willing to participate in conservation programs could be offered the lowest cost electricity and allowed by their respective public service commissions to offer this electricity at a rate that provides a maximum profit margin while still being less costly than the electricity bought by non-conservation utilities and customers. Pursuing this path will allow voluntary participation in conservation while not interfering in any way with the present contracts and pricing mechanisms for those who do not chose to conserve. Keeping these systems voluntary and running bookkeeping for each whould enable Bonneville to see that conservation will finance itsself while non-conservation will continue to escalate the price and environmental degradation.

Hypothetically-

Conservation customers:	utilities	1.5¢/kwh	1.75 profit margi
	customers	3.25¢/kwh	
Non-conservation customers:	utilities	2.0¢/kwh	1.58 profit margi
	customers	3.58¢/kwh	

It surprises me that you have adapted the term "Laissez-Faire" to explain unrestrained access for guaranteed purchase and guaranteed transmission for overdedlopment of resources prior to regional need for the purpose of directly conflicting with Southern Californias ability to develop appropriate responses to energy needs. Solar energy systems and conservation are more available where the sun shines most of the time.

In Northwest Montana the sun doesn't shine nearly as much as in Southern California. This year will be the 6th garden in my attached solar retrofit. During cold weather with no sunshine the south side of the house is tempered and 15° warmer than outside. When the sun shines it rapidly raises the temperature to 80°. In spring and fall heating needs are satisfied and in summer the 6' overhang shades the south wall and cools the house.

Residential energy conservation is a task that could within the short term deliver a potential 40% savings in this sector of the economy. A passive solar retrofit would be the first stage of the conservation effort. Retrofits can be built quickly, with low cost indigenous materials and a minimum of labor. The glass for retrofits (the best material, because it enhances the value of the building it is attached to) can be bought cheaply as seconds from the sliding glass door industry.

In order to merchandise a conservation program a retrofit could be offered as an incentive and as not an incursion on the living space of the conservation customer. Second stage in the development of the conservation of energy would be insulation, weatherstripping, glazing windows, after conservation becomes important to the customer. The final appropriate technology snstallation could be a passive solar hot water system connected to the existing electric or gas powered system. This approach would prov the necessary fuel, savings and awareness necessary to further the acceptance of conservation. Low interest and payments amortized over a long term would insure the conversion to passive solar within the near term.

Thank you for this opportunity to participate in environmental decision making that affects my environment.

Barbara D. Rhodes
Rural Route 1, Box 1945
Libby, Montana 59923
Barbara D. Rhodes

Under no section in the proposed policy are our needs addressed for access. If anything we appear to be excluded. On page 3 under section C, Conditions for Intertie Access, part 1 says the "Administrator will provide Assured Delivery or will allocate available Intertie Capacity to BPA and to Scheduling Utilities pursuant to the conditions set forth in this policy..."

The proposed policy does not address the need for other "entities" such as the Tribes to access the intertie. It is the Tribes' position that the new long-term policy should recognize the need for entities other than Scheduling Utilities to access the intertie. It is imperative that a provision be included in the final long term policy to address this need. Thank you for providing this opportunity for comment.

CONFEDERATED SALISH & KOOTENAI TRIBES

Sincerely,

Michael T. Pablo
Tribal Chairman

MTP/cbp

NORTHWEST CONSERVATION ACT COALITION

1516 Melrose Ave. · P.O. Box 20458 · Seattle, Washington 98102 · (206) 624-2875

January 12, 1987

Donna Geiger, Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

RE: Comments on "Intertie Development and Use DEIS" and Proposed Long Term Intertie Access Policy

Dear Donna:

This letter constitutes our comments on the above referenced documents. We appreciate the thorough public involvement and policy-making process which has preceded release of these documents. That process has already produced positive results in the draft documents, progress which we hope our comments can help advance in the final EIS and IAP.

1) Positive Features of the Draft Documents

Several elements of the draft documents are particularly praiseworthy; we urge Bonneville to retain these features in the final documents. These include:

--The fish and wildlife language. We are reassured that the Draft IAP contains strong language to assure that access to the Intertie will not be permitted for any new hydro project "that will have a substantial adverse impact on fish or wildlife resources within the Columbia River Basin." This focus on effects on the resource itself seems to us entirely appropriate and will do much to stem fears of a hydro "gold rush" by speculative developers counting on extra-regional markets.

--Provisions for firm access for new resources. We support the limitation of firm access to existing resources until the Intertie is upgraded to 7900 megawatts. It's entirely proper that BPA not encourage development of new resources which could only depress prices by increasing competition for limited Intertie space.

--The acknowledgement of conservation's role in surplus sales.

The IDUEIS notes (p. 2-8) that conservation can be effectively used to extend existing surpluses, and sales based on them. This acknowledgement is a useful step towards fully integrating the conservation resource into surplus sales policy.

That being said, there are certain other respects in which we believe that the analysis in the IDUEIS and the provisions of the IAP could be usefully strengthened.

2) Protecting the Region from Ill-Advised Surplus Sales

Jim Jura's December 4 speech to the Public Power Council contained the following words:

> "These [other exporting Northwest] utilities can offer their product with a fat insurance policy. They know they can fall back on Bonneville with their loads if they miscalculate and need additional power."

In fact, the case is not that clear and Bonneville's IAP could clear up any remaining doubt.

The issue of course, is whether the Administrator has an obligation to serve load deficits of Northwest utilities, if those deficits were created by an overexuberant out-of-region sale.

Some parties already doubt that that Administrator has any such obligation to cover the bad bets of the region's utilities. In a December 23 letter, Pacific Power and Light Vice-President Rod Boucher told Jim Jura:

> "Pacific Power & Light Company (Pacific) understands that pursuant to 16 USE Section 837(d), the Administrator is not obligated to acquire new resources to meet Pacific's regional firm energy requirements to the extent that such energy requirements are created by the sale of firm energy by Pacific to California utilities from resources which are included in the resources for service to Pacific's firm load in the region."

Some other parties may not be so clear on their understanding of the law. To protect BPA from such parties -- at a minimum to prevent needless litigation over the question -- BPA should include protective language in the IAP.

The thrust of the language should be to require any party seeking firm access to waive any right to place load on the Administrator if the need to place such a load is created by the export sale. We

fully support the language proposed to accomplish this purpose by the Natural Resources Defense Council. We can see no reason why BPA should hesitate to protect itself and its customers from irresponsible competitors for California markets.

3) Strenghthening Conservation's Role in Surplus Sales

The final EIS and IAP need to take further steps to complete the integration of the conservation resource into the region's surplus sales strategy.

First, the policy should simply bar access for any new generating resources until the region approaches load/resource balance. As noted in the IDUEIS, such a policy would provide a strong encouragement to utilities with existing surpluses to engage in conservation in order to extend their assured delivery allocation and their ability to make surplus sales. It's difficult for us to seek what regional interest would be harmed by such a policy. As you know, the Near-Term IAP has thus barred new resources, with no negative effects with which we are acquainted. We urge that the final policy extend this approach.

Such a step, however, will encourage conservation only by generating utilities with existing surpluses to sell. The challenge that BPA has not yet met is to find a mechanism for integrating the entire region's conservation into the entire region's surplus sales policy. As matters now stand there is no way that a non-generating utility can "pre-build" conservation" and gain its fair share of any benefits to the region of the additional power made available for surplus sale. In fact, the IDUEIS contains no hint that we can find that such a mechanism has even been evaluated or seriously considered. BPA has already acknowledged the potential benefits of using conservation to back up surplus sales (see the Environmental Assessment of the Southern California Edison sale; May, 1986; p. 17). Given that acknowledgement, the failure to even consider mechanisms for involving the non-generating utilities in conservation for export is puzzling, at best. The Final IDUEIS must explicitly examine such mechanisms.

4) "Environmental Dispatch" of Exported Coal Power

The possibility of using environmental criteria in dispatching Northwest resources for operation to support exports is given fairly short shrift in the EIS. The EIS grumbles about the difficulty of comparing the environmental effects of different kinds of resources

and questions the existence of "widely agreed-upon rankings or regional preferences" among these various kinds of effects. Going a step further, the EIS says that even comparing only the various coal plants "would require judgements about tradeoffs that are far from clear.

In some other contexts BPA has been more bullish about the possibility of estimating environmental costs. For example, the June, 1985 Issue Backgrounder on environmental cost analysis bragged about how BPA examined and compared the environmental effects of three resources which could replace WPPSS #1 and #3, in a cost-effectiveness analysis of those plants. And the new WPPSS cost-effectiveness study indicates thatfor use in the final study version, Bonneville is preparing a study of those serious coal plan effects associated with plant emmissions, including health risks, climatological change and visibility degredation.

Given BPA's growing experience in evaluating environmental costs, we are simply not persuaded by the EIS' pleas of incapacity. Especially if the comparison is among coal plants alone, and existing, operating coal plants -- not generic or proposed plants -- we are certain that Bonneville's analysts can come up with the information and rankings needed to include environmental factors in the criteria for power dispatch in surplus sales. If our confidence in the ability of BPA staff is misplaced, we at least look forward to a much fuller discussion, in the Final EIS, of the reasons why BPA's existing information, combined with information from other agencies (plant sponsors, EPA, etc.) cannot provide the necessary groundwork. The discussion in the Draft EIS is inadequate and unconvincing.

We should also note that environmental dispatch may prove to be the most economic dispatch routine, as well; the region's dirtiest coal plant, Centralia is also its most expensive, and the region's cheapest coal plants are also apparently among the cleanest).

5) Maximizing the Environmental Benefits of Surplus Sales in the Pacific Southwest

We can find no discussion in the EIS of the possible desirability of shifting consumption patterns in California. For instance, some of our California colleagues have suggested that their may be additional environmental benefits to be gained by increasing sales to the most smog-threatened areas of the state (the L.A. basin). The Final EIS

should consider whether some different distribution of sales among the various extra-regional buyers would increase total benefits of surplus sales. If such potential benefits can be identified, the EIS should consider mechanisms to encourage such a redistribution.

We hope these comments are useful. Please feel free to contact us if you or any other BPA staff would like to discuss our concerns.

Sincerely,

Marc Sullivan
Executive Director

OFFICE OF
BOARD OF COUNTY COMMISSIONERS
LINCOLN COUNTY, WASHINGTON
Office Phone 725-3031

DAVENPORT, WASHINGTON

January 12, 1987

Ms. Donna L. Geiger ALT
P. O. Box 12999
Public Involvement Office
Portland, Oregon 97212

Subject: Intertie Access Policies and Proposed Contract with Southern California Edison

Dear Ms. Geiger,

We are writing to express our concerns about the sale of power outside the Northwest region at what, we consider to be, the expense of those of us who live along the upper Columbia River. It appears to us that your proposed policies will result in a lowering of the level of Lake Roosevelt, beyond that which is needed for flood control and leaving it lowered for a longer period than is necessary. These actions would have a direct negative impact on our fishing, recreation and economic development plans for this region, the value of which, while not having been properly measured at this time, has been estimated to be in the billions of dollars in the long term.

The water level tables which are released for short term use are not being adhered to, leaving considerable doubt in our minds as to how believable the 20 year projections might be.

We simply need more time to study the true impacts and work out the necessary mitigations. In addition, the deadline for the comment period should be extended until this fall.

Respectfully,

BOARD OF COUNTY COMMISSIONERS
LINCOLN COUNTY, WASHINGTON

ANDY M. RUSTEMEYER, Commissioner

AMR ls

cc: The Honorable Tom Foley
The Honorable Dan Evans
The Honorable Brock Adams
Meg N. Bloch
Dr. Bill Gray

NON-GENERATING PUBLIC UTILITIES
921 SW WASHINGTON STREET, SUITE 860
PORTLAND, OR 97205
(503) 227-3524

January 14, 1987

Mr. James J. Jura, Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208

Dear Jim:

This letter is in response to your October 22, 1986 request for comments on the Long-Term Intertie Access Policy.

In summary, the Non-Generating Public Utilities group supports your Long-Term Intertie Access Policy. We can not offer detailed comments regarding operational aspects of the policy, but as an overall policy we support the Administrator providing assured delivery or allocation of Intertie capacity when such access will not substantially interfere with the Administrator's power marketing program. We believe this policy is important for BPA to protect the interest of its customers, as well as public preference. We are pleased that the definition of the Administrator's power marketing program encompasses that general concept.

Although we offer no opinion on BPA's overall legal responsibilities on reviewing fish or wildlife impacts as a result of non-federal hydroelectric projects, we do not believe an independent BPA review of fish and wildlife impacts will achieve the objectives desired in Section C(3)(c)(3). We support the objectives of Section C(3)(c)(3) of protecting BPA fish and wildlife expenditures and limiting risks to federal projects only. Even if BPA did review fish and wildlife impacts of non-federal hydro projects there could be conditions that occur, unforeseen by BPA, that after review and the projects become operational could put the Federal System at financial risk. We believe that risk should be borne by the owner/operator of the non-federal facility. With that in mind, we do not see a need for BPA to review fish and wildlife aspects for non-federal hydro project access on the Intertie. We recommend that to protect BPA, access be under the condition that the owner and/or operator indemnify BPA for any future fish and wildlife costs.

As a final comment, we see the proposed policy as giving fair access to all parties. Since BPA is essentially the prime owner of the Interties, it seems appropriate that a condition of reasonableness must be built into the policy. We see the condition "will not substantially interfere with the Administrator's power marketing program" as a means for allowing reasonable access without major impacts to BPA and its customers. BPA revenues from Intertie sales are a major factor in setting BPA rates and those mostly affected by such rates are those utilities who are essentially placing their full requirements on the Bonneville Power Administration. To that extent we believe that BPA has a particular obligation to the full requirements customers through the use and sale of federal power over the Federal Intertie System.

Sincerely yours,

Ray Foleen
Executive Director

RF:ny:178

U.S. DEPARTMENT OF ENERGY - BONNEVILLE POWER ADMINISTRATION

CONFERENCE AND TELEPHONE CALL REPORT

Date 1/15/87

cc: ☐ ☐ ☐ ☐ ☐ ☐ ☐

TO: Draft IDU EIS

FROM: Beverly

Include all telephone calls and conferences of importance bearing upon policies, customer or public relations, but excluding those purely technical in nature

OUTSIDE CALLER OR CONFEREE	SUMMARY OF DISCUSSION
Mr. Ron Snyder President Chamber of Commerce Kettle Falls PO Box 437 Kettle Falls, WA 99141 (509) 738-6521	Attended a meeting with the following communities: Calvill, Markus, Northport, Kettle Falls, Calvill Indian Tribe Spokane Indian Tribe, 7 Bay Resort & Davenport. (Several of the above have already submitted written comments. As a group they wanted the following to be heard.) They all feel there was not enough study and input done to make a decision in determining the water levels of Lake Roseveldt. They felt the IDU DEIS did not address the environmental impact of the Upper Columbia Area. They did not feel that "Phase 2 Irrigation" was properly addressed. In fact, they feel it was basically "not addressed". Overall the feeling among the communities was, not enough study and input has been done to make final decisions. They feel public input should be extended until next fall.

BPA 15 [illegible]

G.H. BOWERS ENGINEERING

Consultations on Power System Planning

1930 North 122nd Street • Seattle, Washington 98133 Telephone: (206) 361-0461

January 13, 1987

Mr. James J. Jura, Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

Dear Mr. Jura:

BPA employs many dedicated and skilled professionals. Therefore, when BPA publishes a study as obfuscating as the recent intertie development study, it is clearly due to decisions from top administrators. That is why I am urging you to consider the following comments and to produce a final EIS which will be a credit to you and your staff.

1. The Congressional authorization which the DEIS cites was based on the belief that the tie was to be expanded from 4400 MW to, at most, 6200 MW. It was not the intent of Congress to authorize the expansion of the tie from 6300 MW to 7900 MW as is proposed. The GAO reports relied on by Congress recommended that the tie be expanded only up to 6300 MW. With the will of Congress already met, DOE should realize that its mandate is complete and give the third ac project the critical review that is warranted.

2. Your DEIS should include the cost to the PNW of providing 1600 MW of transmission capability the length of Oregon, or the cost to replace the function if currently available lines are used for the third ac.

3. Your DEIS should show that surplus hydroelectric generation can be used in the PNW to reduce our nuclear fuel consumption.

4. Your DEIS uses the SAM computer model to calculate load shaping benefits and then uses hand calculations to re-add in many of the same benefits. Using SAM for the complete analysis might avoid this double accounting.

5. Your DEIS should consider that peaking our hydroelectric resources to serve California will reduce the efficiency of all PNW day time hydroelectric energy production. Substantial losses in energy production will hurt both the PNW and the PSW.

6. The DEIS omits reporting the environmental losses to the PNW when we fluctuate our rivers to provide California with hourly load shaping.

7. Most tables in Chapter 4 of the DEIS error in their reporting of oil consumption by a factor of 1 billion.

8. Tables 4.2.14, 4.2.19, and 4.2.24 show that, with the third ac, the PNW will generate 140 aMW more and the PSW and the ISW will generate 171 aMW and 118 aMW less, respectively. Obviously, the displacement due to 140 aMW shouldn't be over about 130 aMW when losses are considered. BPA's analysis for the ISW is reportedly totally erroneous.

9. The assumption that the PSW will continue to rely heavily on oil through 2030 is to assume that the PSW is going to waste billions of dollars. PSW utilities can build and run new coal or nuclear plants cheaper than if they continue to burn oil. Also, as current plants wear out, it is illogical and illegal to replace them with more oil plants. At the very least, the assumed use of oil in the PSW should be assumed to fade to a minimal level after the year 2004.

10. Calling the base case (i.e. the existing case) "DC Upgrade" and presenting something other than the base case as the base case only serves to obfuscate the issue. Also deceptive is the omission in most tables of the incremental effect of the proposed project.

11. The DEIS should acknowledge that the proposed capital investment will retard our repayment to the Treasury and all the ramifications thereof.

12. The DEIS should update the value used for oil, it should not include a speculative real escalation factor for oil, and it should update the discount rates it uses.

13. The DEIS should not present only bottom line results from a "black box" but should give annual and other breakdowns of the results and should present sample illustrative examples of each system's operation with and without the proposal.

14. Your DEIS found a net loss from the third ac of $249 million. It should have reported this in its text and in its summary. Your final EIS should show even greater losses and should clearly report its findings.

15. The 3150 MW capacity sale assumed by BPA can be made over the 6300 MW intertie line without decreasing the system's ability to deliver surplus energy. According to BPA staff, PSW utilities desire the larger line in order to better bargain for lower rates for incidental energy. Equitable rates for energy received incidental to capacity delivery is an alternative to the project which costs virtually nothing and should be considered. Certainly BPA can design a rate structure which addresses the concerns of the PSW utilities before half a billion dollars is spent rather than after the money is spent.

16. The DEIS should reflect that, eventually, loads will grow to the point at which the 3150 MW capacity surplus assumed in the report will no longer be available.

17. The DEIS infers that the PSW's hydroelectric system cannot be used for peaking operation. This should be corrected.

18. If capacity sales are to be included in the analysis, so should capacity costs.

19. A risk analysis should be included in the FEIS to show that, at best, the PNW will probably lose from the third ac project and that, in the worst case, the PNW will lose over a billion dollars which could have further severe consequences due to elasticity in sales.

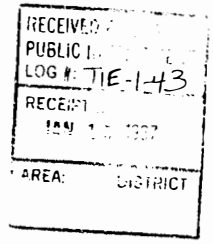
20. Figure 4.2.5 is not a reasonable representation of the proposal. It would help if actual data were used.

Sincerely,

Gregory H. Bowers, P.E.

STATE OF CALIFORNIA
GEORGE DEUKMEJIAN, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102



January 14, 1987

Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
1002 N.E. Holladay
Portland, OR 97232

Dear Ms. Geiger

Re: Proposed Long Term Intertie Access Policy

The California Public Utilities Commission ("CPUC") takes this opportunity to submit the following comments regarding the Long Term Intertie Access Policy ("LTIAP) proposed by the Bonneville Power Administration ("BPA"). First and foremost, we must emphasize that Section 7(i) of the Pacific Northwest Electric Power Planning and Conservation Act ("Pacific Northwest Act"), 16 U.S.C. §839e(i), requires the BPA to follow certain, specified procedures in establishing rates to be charged for the sale or transmission of electrical power. Portland General Electric Company v. Johnson, 754 F.2d 1475, 1481 (9th Cir. 1985). In particular, under Section 7(i)(2), the BPA is directed to conduct a hearing in order "to develop a full and complete record and to receive public comment in the form of written and oral presentation of views, data, questions, and argument related to such ... rates." 16 U.S.C. §839(e)(i)(2). The BPA is further directed, at any such hearing, to provide an adequate opportunity to each party to refute or rebut the presentation of any other party, including BPA, and to cross-examine any witness. 16 U.S.C. §839(e)(2)(A) and (B). The BPA's final decision must be based on the record developed in that hearing and include a "full and complete justification" for any rates established. 16 U.S.C. §839(e)(i)(5). For that decision to become effective, those rates must first be approved and confirmed by the Federal Energy Regulatory Commission ("FERC"). 16 U.S.C. §839(i)(6).

These requirements manifestly apply to the BPA's proposed institution of the LTIAP. As freely acknowledged by the BPA, the LTIAP is intended to enhance its ability to collect greater revenues from California, and thereby reduce rates that the Pacific Northwest would otherwise be charged. It would accomplish this in the first instance by reserving capacity on the Pacific Intertie for the BPA's "power marketing program," whether or not a willing buyer exists in California. Any remaining capacity would then be allocated to various utilities in the Pacific Northwest on the basis of fixed, proportional shares. On this basis, since no seller in the Pacific Northwest could increase its allocation, all incentive to reduce price would be eliminated. As a result, bolstered by the exclusion of extraregional utilities, competition would be effectively removed and the BPA enabled to charge the highest rates possible to California.

Given this intended consequence, the LTIAP can be considered nothing short of ratemaking. Accordingly, before proceeding further in the development of this or any other policy governing access to the Pacific Intertie, the BPA must first comply with the procedures set forth in Section 7(i) of the Pacific Northwest Act, including the requirement that a full, evidentiary hearing be held. To proceed in a contrary manner would be to deny interested parties a meaningful opportunity "to participate in the determination of rates and availability provisions that affect them," Portland General Electric Company v. Johnson, supra 754 F.2d at 1475, and thus render illusory any sense of due process in ratemaking by the BPA.

We must also emphasize that the BPA's discretion in providing access to the Pacific Intertie is closely constrained. True enough, under Section 6 of the Pacific Northwest Consumer Power Preference Act ("Regional Preference Act"), the BPA is authorized to reserve capacity on the Pacific Intertie needed to transmit federal energy outside the Pacific Northwest. 16 U.S.C. §837e. As explained in the legislative history of this statute, however,

> In determining the existence of capacity excess to the needs of the Government, Federal needs reasonably foreseeable may be included, but [the BPA] may not decline to enter into wheeling agreements merely because [it] may have energy available for sale to serve the same load.

H.R. Rep. No. 590, 88th Cong., 2d Sess., 1964 U.S. Code Cong. & Ad. News at 3350. Thus, the BPA may reserve sufficient capacity to meet reasonably foreseeable as well as current needs -- "so long as the agency does not compete with other utilities on the mere speculation that it 'may have energy available' sometime in the future to sell to the same customer." Los Angeles Department of Water and Power v. Bonneville Power Administration, 759 F.2d 684 (9th Cir. 1985).

Once its legitimate needs have been met, the BPA is directed to transmit electrical energy for any utility which can arrange a transaction over the Pacific Intertie. As provided by Section 6 of the Regional Preference Act,

> Any capacity in Federal transmission lines connecting, either by themselves or with non-Federal lines, a generating plant in the Pacific Northwest or Canada with the other area or with any other area outside the Pacific Northwest, which is not required for the transmission of Federal energy or the energy described in Section 837h of this title, shall be made available as a carrier for transmission of other electric energy between such areas.

16 U.S.C. §837e. More particularly, under Section 6 of the Federal Columbia River Transmission System Act, such capacity must be made available "on a fair and nondiscriminatory basis." 16 U.S.C. §838d. Taken together, these statutes oblige the BPA to act as a carrier fairly and without discrimination.

This obligation applies equally to utilities in the Pacific Northwest and Canada -- that is, to the transmission of electric energy from "a generating plant in the Pacific Northwest or Canada." 16 U.S.C. §837e. As the legislative history of the Regional Preference Act further explains,

> [The BPA] may enter into agreements for the wheeling of energy generated in Canada, but such energy stands on the same basis as any other non-Federal energy. It does not have the priority granted to Federal energy and Canada's entitlement to downstream power benefits under the proposed treaty.

H.R. Rep. No. 590, 88th Cong., 2d Sess., 1964 U.S. Code Cong. & Ad. News at 3350. Thus, even though standing in line behind federal energy and such "downstream power benefits," energy from Canada must be treated the same as "any other non-Federal energy."

Similarly, the proposal to provide access to the Pacific Intertie on a fixed proportional basis can only be understood as an effort to remove competition in the sale of electrical power to California. Id. at 690. Once its legitimate needs have been met, the BPA must make available any remaining capacity to any utility in the Pacific Northwest or Canada which can arrange a transaction with California. 16 U.S.C. §837c. It is obliged, after all, to act as a carrier fairly and without discrimination.

The BPA cannot escape these requirements through the assertion of financial difficulties. In the first place, such difficulties as the BPA may face are a consequence simply of its inability to predict supply and demand in the Pacific Northwest and not of its failure somehow to collect high enough revenues from California. Thus, under the Regional Preference Act, the BPA may sell to its extraregional customers only that electrical power for which no need whatsoever exists in the Pacific Northwest. Under such circumstances, California cannot be said to impose any demand on the BPA.

Moreover, no matter from which customers revenues are collected, the BPA's total costs will remain the same. Central Lincoln People's Utilities District v. Johnson, supra, 735 F.2d at 1115. Properly understood, greater revenues can be collected from California only if rates which would otherwise be charged regional customers are correspondingly reduced. Such a result would be contrary, however, to the requirement that rates charged regional customers be based on the costs of providing them service. Id. As observed by the FERC,

> [T]he practice of using the income from sales outside the region to offset revenue requirements for sales within the region would appear to require the BPA to underprice services within the region, thus providing a price preference between regional and nonregional sales which has no basis in the applicable statutes.

U.S. Secretary of Energy, Bonneville Power Administration, 23 FERC ¶62,342.

In closing, we urge the BPA to give careful consideration to our comments and reject the proposed LTIAP as an unfair, inefficient, and unlawful use of the Pacific Intertie.

Sincerely,

Peter G. Fairchild
Principal Counsel

PGF:lz

NATIONAL WILDLIFE FEDERATION

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503-222-1429

January 14, 1987

Donna Geiger
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208

Re: Draft Environmental Impact Statement-Intertie Development and Use and Draft Intertie Access Policy

Dear Ms. Geiger:

This letter constitutes the comments of the National Wildlife Federation on Bonneville Power Administration's Intertie Development and Use EIS and Proposed Longterm Intertie Access Policy. National Wildlife Federation is the nation's largest private conservation organization. Thousands of its two million members live in the Pacific Northwest and use and enjoy the natural resources of this region.

I. The Draft Environmental Impact Statement

A. Scope Of The EIS

As BPA well knows, National Wildlife Federation believes that the construction of the DC Terminal Expansion Project and the issues addressed by the IDU-EIS have cumulative impacts. They are, moreover, separate but connected parts of a larger BPA effort to expand sales of Pacific Northwest electricity to the Pacific Southwest. It is our view, therefore, that the IDU-EIS should not have excluded completion of the DC Terminal Expansion Project as a decision option. Rather, all the various parts of the long-term strategy to sell Pacific Northwest electricity to the south should have been both assessed and left open for decision in the IDU-EIS. Analysis of the DC terminal expansion after the decision to proceed with the project is unacceptable.

B. Faults In The EIS Analysis

The analysis in the EIS is only as good as the assumptions upon which it is based. We believe several of those assumptions are either misleading or innacurate and that portions of the "impact analysis" in the document are flawed. Each of the these problems should be corrected so as to provide a more accurate picture of the potential impacts of an expanded intertie and alternative intertie policies.

First, we consider it misleading to assess potential impacts of long-term firm contracts by assuming that most such contracts

will take the form described by BPA as the "generic" long-term contracts. The generic contract assumes the sale of surplus energy until the region achieves load-resource balance, at which point the contract would become a capacity-energy exchange arrangement.

Despite assertions in the Appendix, there is no documentation in the EIS that long-term power sales arranged by individual utilities and other resource developers in the Pacific Northwest will take this rather favorable form. Nor does the fact that BPA has such a contract with Southern California Edison lead inexorably to that conclusion. To the contrary, it seems that rather less carefully crafted contracts may be the more likely form, particularly if resource developing utilities feel confident that they can turn to BPA in times of future deficit to have their needs met. At a minimum, BPA must justify its assumption and describe other potential long-term sales scenarios in the face of uncertainty.

Only in one instance does BPA predict other sorts of long-term sales, in the "laissez faire" future. But the bulk of its environmental analysis ignores that future and looks only at the "generic" future. If long-term contracts were of a form less desirable than the generic agreements, would the environmental impacts on Columbia River recreation, on fish and wildlife, on air quality, on other environmental values, be different? The EIS never says. Except for describing the potential new resource development under a "laissez faire" regime, there is no analysis, so far as we can tell, of the environmental impacts of any long-term power contracts except those of the generic type. Surely the environmental analysis should advise the Administrator and the public of what would happen if long-term sales of another sort occurred. This is particularly important because, as we now understand it, after the Intertie reaches a 7900 MW capacity, the "laissez faire" future will appear as reality. There are no constraints on power sales after that point.

In the description of the potential development of resources under various alternative scenarios (including the baseline for comparison and various intertie capacities), BPA has also erred, in our view, by using the "least-cost mix model." That model, as we understand it, assumes development of resources based on a calculation of regional economic efficiency. But, if diverse organizations throughout the region, rather than BPA itself, are developing these resources, there certainly is no guarantee that that efficient pattern will appear. FERC and its applicants do not use the LCMM.Individual utilities do not use a regional LCMM. If past history is any gauge, a future quite different than that predicted by the LCMM is probably more likely; less conservation

and more hydropower could well appear in the region's resource mix, BPA must assess the real future, not one idealized by its models.[1]

The EIS contains lengthy tables purporting to predict the impact on Columbia River Basin anadromous fish from various alternative intertie scenarios. The analysis of the impacts, however, suffers from the same serious problems (previously identified by resource agencies, tribes, and the Power Council) in the DC Terminal Expansion Supplemental Environmental Assessment. Briefly, BPA relies on a problematically accurate model to produce absolute numbers which are then relied upon without question. The numbers are not accurate. The analysis uses a number of faulty assumptions. The averaging of impacts over a number of years obscures potentially significant annual effects. The tables hide rather than reveal the range of possible impacts and ignore the significance of recent sensitivity analyses of the fish passage calculations. We hereby incorporate by reference all the comments filed on the DC Terminal Supplemental EA and urge BPA to reassess its anadromous fish analysis. We additionally endorse the comments filed by the Columbia River Intertribal Fish Commission on this issue.

Nor has BPA provided any meaningful analysis of the impacts on anadromous fish (and other natural resources) of a laissez faire future consisting of hundreds of additional megawatts of small hydropower. Some of that would presumably appear in the Columbia River Basin. Some would be built elsewhere in the region. One or two paragraphs of "generic" hydropower impacts does not suffice under NEPA to advise the region's citizens where and how their natural resources will be affected by such development.

C. Alternatives Missing From The Analysis

Years ago, National Wildlife Federation and other organizations encouraged BPA to incorporate into its access policies provisions that would deny access to utilities or other resource developers who could not demonstrate compliance with the Energy Plan and Fish and Wildlife Program of the Northwest Power Planning Council. Such a proposal is surely not beyond the legal authority of BPA or beyond the realm of possibility or reason. Given the importance and public support of the Council's Plan, there can be no excuse not to incorporate that proposal into the alternatives considered by BPA. One or more of the decision packages, including one permitting maximum intertie expansion, must incorporate such a policy for review.

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1 We note, too, that the LCMM seems to bear little relationship to the Council's Resource Portfolio.

Additionally, we find nowhere in the "decision packages" an alternative that would encourage or require what appear to be obviously preferable types of long-term contracts, i.e., the "generic contracts." BPA displays throughout its document the advantages of the so-called generic contracts, and the disadvantages, at least to the Pacific Northwest, of uncontrolled resource development. But neither the draft policy nor its alternatives suggest ways to control resource development except to limit new resource access until the transmission line capacity equals 7900 megawatts. Even before that, however, long-term contracts less favorable than the "generic" type are permitted and after that, any new resource, with any type of contract, can obtain intertie access. Given the revelations of how important the types of contracts can be to environmental impacts, BPA is under an obligation to consider alternatives to deal with the problem. One approach has already been suggested by the Natural Resources Defense Council. NRDC suggests that a utility selling power out of the region should waive its rights to demand that the region provide energy to replace that sold should deficits appear later. That would not prohibit the wrong kind of contracts, but would at least encourage wiser contractual arrangements. Another mechanism might give priority or absolute preference to the kind of contracts that BPA sees as most advantageous. One way or another, BPA must consider the issue and seek ways to insure a future of "generic" contracts.

Further, BPA does not present alternative ways of mitigating or reducing the harm that its document predicts will occur. According to CEQ regulations, BPA is obligated to do so. 40 C.F.R. § 1508.25. For instance, BPA admits potential serious reductions in Columbia River anadromous fish survival in certain circumstances, yet proposes no mitigation. The purported discussion of possible mitigation for anadromous fish impacts, found on Page 4.5-28, includes four items, all of which are already under way in one form or another. Their mere mention cannot be considered adequate to address the need to develop mitigation proposals.

Similarly, BPA puts forth no proposal to mitigate for the damage to natural resources from the substantial new hydropower resources predicted under the laissez-faire future, an inevitable future, once the maximum intertie capacity is achieved. BPA's only response is to point to that part of its policy that would limit access to the intertie for resources which have substantial adverse impact on fish and wildlife resources. We commend BPA for that policy. But it is so vague as to be of little use to describe potential for real mitigation. In addition, as currently written, that policy applies only in the Columbia River Basin, which means that it cannot prevent or mitigate for hydropower losses outside that drainage.

II. The Proposed Intertie Access Policy

A. Fish and Wildlife Provisions

We appreciate BPA's inclusion in its policy of provisons to help protect fish and wildlife resources in the Columbia River Basin. We support provisions to achieve that goal and, in particular, support BPA's proposal to decrease a utility's share of the intertie by the amount of a non-complying resource. It is our view, however, that the language chosen by BPA is insufficient to accomplish goals of the Northwest Power Act to restore the fish and wildlife resources of the Columbia River Basin. In particular, BPA has limited itself to take action only where adverse impacts are "substantial," or where effects on the Administrator's obligations are "substantial." The difficulty with the use of that word is twofold. First, BPA may not permit all but "substantial interference" with its legal obligations under the Northwest Power Act. Any interference would be illegal and unacceptable. See, Policy, § C.3.c(3). Second, the word substantial should not be used for it implies an impact that is large in absolute terms. Yet, the importance of an impact on fish and wildlife in the Columbia River Basin or elsewhere can only be judged in context. Thus, in certain basins in the Columbia River, a small impact on a particular fish stock, while not substantial in absolute terms, could still be significant in terms of fish restoration and mitigation efforts. Similarly, there may well be small hydropower projects whose individual impact would not be substantial. Yet, in cumulative terms, or as the first step in a series of projects, a small impact could be significant and may need to be avoided. Thus, we urge, at a minimum, that throughout the policy wherever the word "substantial" appears (except with respect to the BPA's local obligations, where it should be stricken altogether), the word "significant" should appear in its place. Further, the Administrator should explain in the record of decision that the word significant is used to permit BPA to consider the potential impacts[2] and their importance in their appropriate context.

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2 We must admit our concern about BPA interpretation of "substantial and adverse impact." We believe that the impacts to anadromous fish from the maximum upgrade, if nothing else, represent substantial and adverse impacts that should be prevented or mitigated. Yet BPA proposes to go forward without preventive or mitigative measures. If BPA does not consider the already identified harm to be "substantial and adverse," then we have little hope for future implementation of that language. In this regard, we incorporate by reference correspondence between BPA and the National Marine Fisheries Service regarding the effectiveness of the fish and wildlife conditions found in the Near-Term Policy.

Second, we cannot agree with BPA's proposal simply to leave open the question of how it will "take into account" the Fish and Wildlife Program of the Northwest Power Planning Council. Rather, BPA should take that Program into account now in development of this policy. To do so, we believe, would lead to a policy requiring compliance with the Program as a condition for intertie access. At a minimum, BPA must assess this alternative. If it did so, we can see no rationale for its rejection. We believe that at each and every place in the policy discussing Columbia River fish and wildlife, the policy should announce that BPA will deny access and reduce allocation to the intertie for any resources that either "significantly and adversely affect fish and wildlife resources," or which are inconsistent with the Council's Fish and Wildlife Program. That would apply both to existing as well as new resources, of course.

Third, the Administrator is authorized and obligated to concern himself not only with the environmental quality of the Columbia River, but the region as a whole. Thus, we urge that the fish and wildlife protections contained in this policy should be expanded to apply to generating resources anywhere in the region. Of course, the Council's Program would not apply throughout the region. But BPA could and should announce that it will not provide access to utilities which operate or build resources which would significantly and adversely affect the fish and wildlife resources anywhere in the region. Congressional efforts to restore the Columbia River system's fish and wildlife resources would be pointless and futile if the kind of damage suffered there is simply relocated to other regional river basins.

B. Other New Resource Development

We have urged that Bonneville consider an alternative that would deny intertie access to utilities or other resource developers whose projects were not consistent with the Energy Plan of the Northwest Power Planning Council. This, perhaps more than anything else, could constrain the environmental harm that might flow from resources developed simply to serve California load. We believe once it is assessed in the EIS, that Bonneville should, and in all logic must, impose such intertie access conditions. In support of this proposal, we hereby incorporate by reference past comments on this and other BPA intertie actions (including the Near Term Policy), filed by NWF, NRDC, and the Power Planning Council. We and other organizations have consistently advocated the imposition of Council Plan consistency as a condition for access and we continue to do so now.

C. Protecting The Region From Imprudent Intertie Sales

The Natural Resources Defense Council has identified a major issue of concern in the current intertie access policy. As proposed, the policy will permit regional utilities to sell power on a long-term basis out of the region and then turn to BPA, and thus the region's ratepayers, to meet any deficits that they encounter as a consequence of such sales. We endorse NRDC's proposal to solve this problem by requiring that any utility gaining access on the intertie for out of region sales waive its right to demand from BPA replacement power to cover energy deficit resulting from such sales.

The NRDC proposal will protect BPA's ratepayers from unwise out of region sales, and it might discourage some utilities from proceeding in that direction. But it will not prohibit such sales and it will not prevent the region from paying the environmental price for development of generating resources by utilities or entrepreneurs to support solely out of region sales. It is for that reason that we would go further than NRDC and suggest first, as we have before, that only entities that develop generating resources consistent with the Council's Plan should be permitted access to the intertie. As an alternative, BPA could develop a system to give even greater incentives through priority access or other measures to utilities that sell power under contracts similar to that described by BPA as "generic contracts." If BPA's analysis is correct, such contracts are in the mutual best interests of the region and the Pacific Southwest, yet there are no provisions in the policy to encourage, let alone require, utilization of such contracts. Given the advantages of such contracts, according to the BPA analysis, the policy should strongly encourage that result.

D. Advance Notice Of NEPA Enforcement Requirements

Again, NRDC has suggested a most useful provision for the intertie access policy that should act additionally as an encouragement for wise rather than imprudent surplus sales. NRDC has urged that BPA announce ahead of time the need to prepare additional environmental analyses for each grant of long-term intertie access. NRDC further suggests that the policy can also give an advance indication of how the NEPA analysis could be reduced by structuring sales to demonstrate no significant environmental impact. This idea would not only minimize NEPA compliance burdens in the future, but would also create a valuable incentive for transactions that are environmentally and economically preferable. We support the idea.

E. NRDC's Conservation Sale Proposals

We, of course, as we have in the past, support the proposals of NRDC to permit non-generating utilities to compete for space on the intertie by selling conservation energy. BPA has failed to address this issue in this EIS and has analyzed no

alternatives for accomplishing it. Since greater reliance on conservation in place of generating resources can only help protect the environmental quality of such importance to the National Wildlife Federation members, we urge BPA to assess NRDC's proposal and find ways to accomplish the result suggested by NRDC.

We appreciate the opportunity to comment.

Very truly yours,

Terence L. Thatcher
Counsel

TLT/bas

GEO Operator Corporation
A Subsidiary of Geothermal Resources International, Inc

January 9, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

RE: **Proposed Long Term Intertie Access Policy and Draft Environmental Impact Statement: Comments**

Dear Ms. Geiger:

The Bonneville Power Administration has invited comments on the two documents noted above, both pertaining to the Pacific Northwest - Pacific Southwest Intertie. We appreciate the opportunity to do so.

In preparation for the comments, we reviewed the two BPA documents, which were presented at the November 19-20 information sessions and December 9-11 hearings, and considered what impacts the policy is likely to have both for our own and other interests. In general we concur with the proposals, but wish to point out additional benefits which could be realized from relatively minor changes.

1. Greater attention should be directed to the character and significance of geothermal-electric resources in both the IAP and the EIS. For example, each "geothermal" reference in the EIS index points only to a list of resources, including geothermal; in no instance is separate analysis given to geothermal potential. In part this may reflect the posture taken in the Power Council's 1986 "Power Plan", in which geothermal resources are recognized for their considerable potential (over 50,000 MW at costs of 5.5 cents/kWh or less - volume 2, Table 6-5), but are not included in the "resource portfolio" because they have not yet been demonstrated as being a viable resource in the Pacific Northwest. However, BPA power is already competing with geothermal power in California; The Geysers geothermal field alone is rapidly approaching 2,000 MW. We believe further attention to geothermal resources in the EIS would have contributed to a different emphasis in the policy and, to the extent that additional work on the EIS is undertaken, we ask that it include a more careful analysis of geothermal resources.

1825 South Grant Street, Suite 900, San Mateo, CA 94402 (415) 349-3881

2. The definition of "Qualified Pacific Northwest Resources" (page 3 of the IAP) should be expanded to include:

> 14.b(3) developed to demonstrate the feasibility of geothermal-electric resources which in the aggregate do not exceed 200 MW. (The 200 MW limit will be removed when subpart b.(2) becomes operative.)

Justification for this change is embodied in the Power Council's discussion of geothermal electric power in the 1986 "Power Plan" (volume 2, page 6-10):

"Due to the large investment required to complete confirmation activities, it is clear geothermal resource developers will not undertake a full confirmation program without assurance of a substantial market for their resource to recover investment costs. Under conditions of extended power surplus, large markets for energy are not likely to emerge. Because it may be desirable to confirm this resource as an alternative to making decisions to construct new large conventional thermal resources, alternative methods of promoting the confirmation of geothermal resources should be explored. These methods might include . . . granting developers conditional access to out-of-region markets."

The reality is that geothermal developers are closer to commercial development than the Plan implies. During the past three years, for example, Geothermal Resources International, Inc. has completed three 4,000-5,000' core holes in Deschutes County, Oregon, and will drill two more in 1987. Present plans also call for a wildcat geothermal well by the end of 1988. If demonstration is to proceed, the need is not so much for the development incentives which the Plan also mentions, but more significantly for the removal of institutional barriers such as restrictions on access to the Intertie.

3. The definition of "Qualified Pacific Northwest Resources" (page 3 of the IAP) should be further expanded to include:

> 14.b.(4) developed pursuant to provisions of the Public Utilities Regulatory Planning Act (PURPA).

BPA raised this issue itself in the discussion paper on "Major Issues in the Developemnt of the Draft Long Term Intertie Access Policy" (page 9). We do not see that BPA has since made a determination of this issue in the process of deriving its Long Term Policy, but we believe such treatment is needed. A case at point is the electric operations of CP National in Oregon, in which cogeneration resources imposed on the company through the mandates of PURPA have exceeded its ability to meld the power at viable consumer prices. Relief would be provided through access to extra-regional markets.

4. Provisions for "Condition 1" (IAP, page 10) should recognize geothermal-electric resources as well as hydroelectric resources. Wherever the words "surplus hydro energy" or "hydroelectric capacity" appear we propose that they be preceded by "geothermal-electric and." This change follows logically from the facts which prompted Condition 1. In contrast to thermal resource fuel which can be stored until needed, the energy contained in water spilled from a hydroelectric resource is forever lost, even though the renewable nature of the resource allows future generation to continue. The same is true for geothermal-electric resources: the energy contained in the heat flux dissipated during a non-generating period is forever lost, even though the renewable nature of the resource allows future generation to continue. If the proposed change is made, it would have no immediate impact since no geothermal-electric resource is currently operational in the Pacific Northwest; but it would establish appropriate conditions for future Intertie allocations.

5. Bonneville should establish conditions and/or procedures which give entities other than Scheduling Utilities assurance of access to the Intertie. Reference is made to the concluding sentence of "Conditions for Intertie Access" (provision 1, IAP, page 3): "An Entity that desires access to the Pacific Intertie for a resource may request access through the Scheduling Utility or BPA depending upon whose control area contains the Entity's resource." As the policy stands, such entities have no protection against rejection by BPA or the applicable Scheduling Utility. Access <u>through</u> Scheduling Utilities may well be appropriate, but other entities need the same <u>right</u> of access for their qualifying resources.

A final observation about environmental concerns may be helpful. Both the Long Term IAP and the EIS which supports it, address environmental concerns. Of primary significance is the need for conservation for anadromous fish, and for protection of the extensive investment which Bonneville has made in programs and features which seek to preserve, conserve, and enhance such resources. Much of the criticism directed to these two documents by conservation groups derives from their beliefs that BPA has not gone far enough, and that measures which encourages expanded use of the intertie will inevitably lead to greater impacts on fish resources through the increased operation of hydroelectric facilities.

As with all other commercial, industrial, and residential projects, development of any energy resource will have some impact on the environment. Impacts vary in character and extent; however, the significance of each may warrant separate treatment by BPA as well as those who seek to modify the policy due to environmental concerns.

Geothermal-electric resources have no significant impact on anadromous or other fish resources. The impact on other wildlife resources is a function of the type of development and care exercised. With due diligence and appropriate regulatory constraints, wildlife impacts can be negligible. Three conclusions follow from this: (1) Geothermal-electric development should be encouraged in the Pacific Northwest as an environmentally advantageous alternative to expansion of thermal plants and hydroelectric projects with their accompaning adverse fish impacts; (2) the EIS should distinguish between alternatives so as to protect geothermal resources from any stigma which may attach to hydroelectric facilities and to retain Intertie access for geothermal resources; and (3) to the extent that geothermal power is expected to be part of the power transmitted, objections to possible expansion of the Intertie should be tempered.

Thank you for the opportunity to comment on the draft Long Term Intertie Access Policy and companion Environmental Impact Statement. We would appreciate your consideration of our comments and hope they will be incorporated into the policy which is eventually issued.

If you have questions about our comments, or if you wish to discuss any of these concepts in greater details, we will be pleased to receive your inquiry.

Very truly yours,

Chandler A. Swanberg
Vice President
Non-Geysers Project Manager

CAS:yts

cc: Jim Combs
Joseph Dryer

GEO Operator Corporation
A Subsidiary of Geothermal Resources International, Inc

January 14, 1987

Bonneville Power Administration
Public Involvement
P.O. Box 12999 - ALP
Portland, OR 97212-0999

Attention: Donna Geiger

RE: Comments on BPA DEIS, Vol. 1, Inter-tie Development and Use; Vol. 2, Proposed Long Term Inter-tie Access Policy

Dear Ms. Geiger:

The overall purpose of our organization's comments on these draft reports is to emphasize the noticeable lack of mention of geothermal energy as a firm power source in the future power supply for BPA and the Pacific Northwest in general.

We would like to see geothermal power given a priority resource status, as it reserves the use of fossil fuels for other applications. Geothermal energy, like hydroelectric power, cannot be stored but is available year-round without seasonal curtailments. It can be developed on an incremental basis to gradually meet future supply needs without the major expenses of large scale generating facilities. This type of geothermal resource in Oregon would not create the environmental impacts on fish habitats associated with hydro-development or the many air pollution problems associated with coal. Geothermal energy is less costly and less controversial to develop than nuclear power.

This power could be sold (as described on S-4, of Volume 1, DEIS-IDU) at a higher rate for export to California if a long-term firm power sales agreement was in place.

It is with these ideas in mind that the following comments were prepared.

COMMENTS ON PROPOSED LONG TERM INTER-TIE ACCESS POLICY ISSUES

Comment #1: On page 1 of the Issues paper, under "Most notable among the tough issues addressed by the proposed Long Term IAP are provisions for: . . . access for new hydroelectric plants while assuring protection for fish and wildlife resources."

We would like to see geothermal access given priority consideration since it would provide better protection for fish and wildlife resources than development of new hydroelectric resources.

Comment #2: On page 5-6 of the Issues paper in response to the discussion regarding the concerns of Fish & Wildlife agencies and Indian Tribes wanting the Long Term Inter-tie Access Policy (IAP) to impose restrictions on existing non-federal hydro projects.

The agencies are concerned that the marketing opportunities created by the IAP will cause non-federal development with inadequate regulatory control and they are tired of lengthy expensive legal battles. However, BPA contends that the IAP will not "substantially" increase the use of existing non-federal hydro resources, unless those resources would not be operated in the absence of revenues from extra-regional sales. Development of geothermal resources would allow BPA to avoid the implications of this issue.

COMMENTS ON VOLUME 1, DEIS-IDU

Page 1-10, 1.5 Connected Actions: BC Hydro's Peace River Site C Proposal

Canadian resources deprive the area of potential increased tax revenues and jobs that geothermal, as a firm power source located in Oregon, could provide.

Page 2-3, 2.1.4 Maximum Inter-tie Capacity

We welcome the addition of the DC terminal expansion project and emphasize the southern California market over the northern and central California markets due to the numerous FERC-PURPA projects currently in the construction or permitting phase. These will reduce the need for PNW exports in this area while doing little to meet the demand for additional power in southern California.

Page 1-9, 1.4.4.3.2 Interim/Near Term Policy

This policy does not encourage the development of any new resources to meet future need.

Page 2-5, 2.2.1.4 "Environmental Dispatch" Procedures

The idea of allocating access to the Inter-tie for nonfirm sales, according to the relative environmental impact of the resources producing the power, has appeal for geothermal energy developers if firm power sales were being considered. While recognizing the difficulty in quantifying the environmental effects of comparing one source of power with another, it appears that in a firm power situation, geothermal energy would provide power without the increased air pollution from coal or the impacts of hydro on salmon runs.

Page 2-7, 2.2.2.2 Long-Term Firm Exports

It would be our preference to see long-term firm power sales contracts for inter-tie access contributing to the ability for export power sales, from both BPA and non-BPA utilities, as this would assure higher prices for power being purchased and sold for long-term export to California.

Page 2-8, 2.2.22.3 Comparison of Environmental Effects with and without Long-Term Firm Export Sales

By developing geothermal resources for long-term firm sales, the long-term environmental impacts would be less harmful than for coal or hydro-development. Development of geothermal resources avoids depletion of non-renewable fossil fuels and is less expensive and less controversial than nuclear power.

Page 2-9, 2.2.3.2 Firm Sales from New Resources after the Region Reaches Load/Resource Balance

It is <u>not</u> our preference to see this option implemented due to the potential time delays of available inter-tie access. Even if maximum inter-tie access is available as planned by 1992, there is a chance that the delay of a potential market could damage the possibility of developing geothermal power due to economic impacts of the imposed delay. Also, there would be the risk of losing the export market to California, if California utilities needed firm power supplies prior to inter-tie completion and developed additional resources in California.

Page 2-9, 2.2.3.3 Unrestricted Access for Firm Power from New Resources

By having as few restrictions as possible regarding access for new resources, it creates a more favorable atmosphere for private development of new resources, while allowing supply and demand to dictate the market.

Page 2-9, 2.2.4 Extra-regional Access

It would be our preference to see extra-regional power from Canada eliminated in order to develop new geothermal power resources in Oregon. This way, the economic benefits of tax revenues and employment would stay within the state of Oregon and the BPA service area.

Page 2-10, 2.3 Description of Alternative Decision Packages

Out of all seven Decision Packages available, the preferred package which appears to be the most conducive to development of new firm resources is 2.3.6, Decision Package Number 6. It allows inter-tie access and the most flexibility for establishing a power sales contract without being restricted to direct BPA involvement in developing new resources (such as geothermal resources).

Decision Package Number 1 allows access for new resources but not long-term firm power or capacity contracts by PNW utilities. This would be acceptable only if a sales agreement could be reached with a utility having existing access to the inter-tie.

Decision Packages Numbers 4, 5, and 7 all delay access until after the maximum inter-tie development is completed, which raises the same problems discussed above under comments on Page 2-9, 2.2.3.2.

Comments on Volume 2, DEIS - IAP

General comments regarding timing of IAP development versus geothermal development.

We urge BPA not to penalize a Scheduling Utility for wanting to include a new resource such as geothermal energy which would not be developed until after the IAP is finalized and adopted.

Another advantage is that geothermal energy can be developed on an incremental basis (25 megawatts at a time, for example) of firm power that could be allocated for export or made available to Scheduling Utilities.

Page 1, Definitions - #3, "Assured Delivery"

There is no definition of "uncontrollable forces" given. Does this mean an act of nature or financial necessity? It should be more clearly defined.

Page 7, 4a. and 4b.

Clarification of "Planning Horizon of Load/Resource Balance" would be useful.

Page 8, 8 a.(1)

It seems that if a qualified Pacific Northwest Resource was a geothermal resource, it should receive a priority rating during the eligibility review process.

This concludes our comments on both Volume 1 of the Draft EIS - Inter-tie Development and Use; and Volume 2, Long-Term Inter-tie Access Policy.

Thank you for the opportunity to participate in the review process. Please feel free to contact me if you have any questions.

Yours very truly,

Michael J. Cale
Senior Environmental Coordinator

MJC/JS/dd
PR87-042.js

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

January 9, 1987

Ms. Donna L. Geiger, Public Involvement Manager
Bonneville Power Administration
P.O. Box 1299-ALP
Portland, OR 97212

Dear Ms. Geiger:

This is in reference to your draft supplement to the environmental impact statement for the Intertie Development and Use. Enclosed are comments from the National Oceanic and Atmospheric Administration.

We hope our comments will assist you. Thank you for giving us an opportunity to review the document.

Sincerely,

David Cottingham
Ecology and Conservation Division

Enclosure

F/NWR5-135

JAN 08 1997

Attachment
TIE-1-47

Ms. Donna L. Geiger, Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999-ALP
Portland, OR 97212

Dear Ms. Geiger:

The National Marine Fisheries Service (NMFS) has reviewed the Bonneville Power Administration (BPA) Draft Environmental Impact Statement on Intertie Development and Use (IDU-DEIS), Volume 1 and Volume 2, Proposed Long Term Intertie Access Policy (Policy). The proposed Intertie actions have the potential for significant adverse impacts on anadromous fishery resources within the Northwest region. Therefore, NMFS provides the following comments in accordance with its responsibilities for protection, mitigation and enhancement of marine, estuarine and anadromous fishes and their supporting habitat. Our comments will address the volumes separately.

VOLUME 1

General Comments

I. Potential Conflicts with the Pacific Northwest Electric Power Planning and Conservation Act (NWPA), the Northwest Power Planning Council's Regional Energy Plan and Columbia Basin Fish and Wildlife Program

Although the DEIS purports to discuss relevant fisheries and power issues, it fails to discuss consistency with the Northwest Power Planning Council's (NPPC) Regional Energy Plan and Columbia Basin Fish and Wildlife Program. In fact, there are several potential conflicts between the Intertie expansion analyses and the Plan/Program which should be addressed by BPA.

First, the DEIS discussion of new hydropower incentives relies almost exclusively on the Least Cost Mix computer simulation model. It fails to identify, evaluate, or reconcile the potential conflict between new hydropower incentives that could be provided by Intertie expansion under various scenarios and the extremely limited role for new hydropower under the Regional Energy Plan. The Plan contemplates only 200 mw of new hydropower development under its highest growth scenarios for the next 20 years (and no development of presently undeveloped sites). Much of this new growth is already underway in the form of no-impact and low impact projects approved by the fishery agencies and Indian tribes.

Second, both the DEIS and the proposed Policy understate impacts to anadromous fishery resources and the degree of protection afforded these resources. For example, the DEIS ignores harvest management restrictions, fails to note incremental cumulative impacts on the fish runs, masks impacts to certain fish runs through modeling assumptions, and limits application of Policy protections to power resources with "substantial adverse impact" and "substantial decrease." This approach conflicts with the intent and goals of the Fish & Wildlife Program, the provisions of the U.S./Canada Pacific Salmon Treaty, and the management policies of the fishery agencies and Indian Tribes to prevent further degradation of Columbia River fishery resources and restore harvestable surpluses. There is no question that, particularly for upriver stocks, the region falls substantially short of satisfying these goals and policies. The potential conflict between the Intertie expansion on the one hand and programs to restore fisheries and harvest on the other should be fully explored in the EIS.

In a related area, the DEIS does not provide the analysis required by Section 1204 (b)(1) of the Fish and Wildlife Program, which directs BPA to evaluate cumulative adverse impacts from incremental losses due to multiple hydropower development. Instead, the DEIS fails to address current cumulative adverse impacts and views further incremental impacts as insignificant. The DEIS should be revised to address Section 1204(b)(1) and evaluate the cumulative impact to fisheries from more damaging operation of the existing hydropower system and damaging development and operation of new hydropower projects.

Third, the NPPC's Hydropower Assessment Steering Committee (HASC) is in the process of designating areas within the region that contain fish and wildlife resource values significant enough to preclude hydropower development. The DEIS makes no mention of this protected area designation or of the Administrator's obligation to take such constraints into account to the fullest extent practicable. Further, the NPPC and HASC are engaged in a site-ranking process to categorize potential hydropower sites within the region according to their environmental suitability for use in the Regional Energy Plan. As an interim measure, the fish and wildlife agencies and tribes have completed an interim site-ranking process that has identified numerous sites within the region where hydropower development is environmentally appropriate or inappropriate. The DEIS should discuss limiting Intertie access so that utilities buying power from projects identified as damaging to anadromous fish resources through site-ranking processes are denied access to the Intertie.

Finally, the DEIS does not adequately address the Administrator's obligation to meet energy needs through conservation. Section

4(d)(1) of the NWPA states that priority, in the Regional Energy Plan "...shall be given: first, to conservation...". Section 6(1)(1) states that the Administrator should acquire resources "...through conservation, implement all such conservation measures, and acquire such renewable resources which are installed by a residential or small commercial consumer to reduce load...". Despite this obligation, the DEIS discusses conservation only in terms of savings realized under various Intertie development and access policy scenarios. The EIS should provide a detailed discussion of conservation savings and describe how proposals for acquisition of resources in lieu of conservation comport with the Administrator's conservation obligation, and resource priorities established by the NWPA and the Regional Energy Plan.

II. Need for and Alternatives to the Proposed Actions

The need for the proposed actions is not adequately described. The EIS should analyze how much expanded Intertie capacity is required under various marketing scenarios, rather than assume all expansions are needed. The EIS should, for instance, analyze whether both the DC Expansion and the third AC are needed to sell regional secondary and surplus firm power, and whether this need will remain when the current surplus is exhausted. Further, the DEIS should be expanded to discuss a range of load forecasts, and not simply to rely on BPA's 1985 medium load forecast.

The DEIS treatment of alternatives is also inadequate. As NMFS has urged on many occasions, the DC Terminal Expansion should be considered as an alternative for decision-making purposes. It may well be that the DC Expansion precludes the Third AC, by absorbing all of the region's secondary and surplus firm sales.

Although one of the decisions described in the DEIS is adoption of the Long-Term Intertie Access Policy (Policy), there is no discussion of alternative policies. Many of the alternatives provided by the NMFS in previous comments (e.g., application to Federal projects) are not evaluated, and the policy is not linked at all to the DEIS discussion of impacts. (e.g., it does not include Federal Projects despite their impacts.)

The DEIS should be revised to provide more complete discussion of need and alternatives.

III. New Hydroelectric Incentives

Future development of small hydroelectric power in the Pacific Northwest is institutionally and legally complex. For example, the Federal Power Act (FPA), the Public Utility Regulatory Policy Act (PURPA), and the NWPA including the Columbia Basin Fish and Wildlife Program and the Regional Energy Plan, all influence potential development. The FPA and NWPA place environmental constraints on small hydropower development, whereas PURPA provides development incentives. The Regional Energy Plan calls

for only limited small hydropower acquisition at environmentally acceptable sites by the year 2002 under high growth scenarios, based on environmental and economic considerations. Despite the above, the DEIS' analysis of incentives and deferral of small hydropower acquisitions, is based on the assumption that 736 MW of new hydropower will be in place by the year 2002 under the no action alternative. Given the uncertainty and constraints on future small hydroelectric development, we question the validity of that assumption and therefore the validity of the small hydropower benefits analysis included in the DEIS. The DEIS should provide a discussion of the method whereby the 736 MW value was derived. This should include all assumptions as well as comparisons with development predictions made under a range of reasonable load growth scenarios, rather than just BPA's 1985 long-range medium load forecast.

The DEIS discussion of new hydropower incentives is also problematic because of its reliance on the Least Cost Mix model. It is highly questionable whether a least cost mix scenario presents a realistic picture of future hydropower development for the region as a whole, since many factors, not simply least cost, control such development. Indeed there can be no guarantee that all of the new resources to serve the California and Southwest market will not be from hydroelectric projects. Therefore, the EIS should describe the need for the expanded Intertie and the consequences for northwest power resource development if a least cost mix is not assumed. All analyses based upon least cost should be adjusted to reflect appropriate fish mitigation costs. Additionally, the least cost analysis should address the implications of PURPA (whereby utilities are forced to purchase power resources at avoided cost) on Intertie benefits. The cost to utilities for purchase of such power will very likely be greater than the value of that power for Intertie sales. This aspect of new hydropower acquisition and the impacts of such purchases and sale on the utilities and ratepayers should be addressed.

The DEIS also assumes that, under some scenarios, new hydropower development would be deferred due to exchange benefits provided by power sales contracts with California and the Southwest. Such benefits are not at all certain. The DEIS should be revised to discuss hydropower incentives if no exchange benefits are assumed.

Finally, the DEIS fails to meaningfully assess the environmental and fisheries impacts of new hydropower development, providing only a generic discussion of such impacts without relation to the amount of new hydropower anticipated. The EIS should include a new discussion of potential fishery impacts that will occur due to development of hundreds of new hydropower projects in the region, in advance of regional need for such projects. The EIS should also discuss the impact of this development on fish restoration plans and fishery management programs.

IV. Fishery Impacts

As we have repeatedly noted in our oral and written comments on Intertie issues, the assessment of fishery impacts provided in the DEIS is seriously flawed. For example: (1) the modeling assumptions, particularly assumptions on transportation, mask impacts to individual fish stocks; (2) there is no evaluation of impacts on fishery resources outside of the Columbia Basin; (3) the thresholds used to identify "significant impacts" are arbitrary and ignore the fact that any additional impacts must be considered significant at the current time; (4) results are displayed as averages or mean figures rather than as a range of figures; (5) the consequences of annual incremental decreases in survival are not evaluated over time. We incorporate here by reference our earlier comments on these issues, our correspondence of August 8, 1986 to BPA concerning the D.C. Terminal Expansion Project and our December 1986 Report on BPA's Response to Comments on the Supplemental Environmental Assessment and Administrator's Decision Record on the DC Terminal Expansion.

The DEIS also ignores the current depressed condition of the region's fish runs and resulting harvest restrictions, and assumes that current conditions and fishery requirements are acceptable. They are not, as recent agency and tribal recommendations to improve spill and the Water Budget demonstrate. The Northwest Power Planning Council recently estimated hydro-caused fish losses in the Columbia River alone of 5-11 million fish, and proposed an interim goal of doubling current runs from 2.5 million fish. Harvest restrictions on fisheries from Alaska and British Columbia to California, Oregon, and Washington have occurred to protect current runs. The cumulative impacts of existing hydropower, new hydropower, and the Intertie expansions could have serious consequences for future fish restoration and harvest. The DEIS should be revised to include a full airing of these issues.

V. Economic Impacts

The DEIS contains no discussion of commercial, sport and tribal fisheries and related industries. Nor does it contain a discussion of potential impacts of Intertie development and policy on these industries. Evaluation of the alternatives presented in the DEIS requires development of this information. Additionally, the DEIS cites a benefit/cost ratio of 1.32:1 given maximum Intertie upgrade and firm interregional contracts. Development of this ratio did not appear to incorporate economic impacts on fishery and related industries, mitigation costs at individual projects, or the costs of full compensation for unmitigable fishery losses at individual projects. Incorporation of these losses into the analysis of costs and benefits will have an impact upon the value of the Intertie as well as on the feasibility and timing of acquisitions from various regional resources. All economic evaluations included in the DEIS should be adjusted to reflect the concerns discussed above. Without this adjustment,

the analysis does not present a realistic picture of all potential economic impacts of the proposed BPA action.

VI. Mitigation Measures

The DEIS includes an analysis of potential fishery impacts of the Federal hydropower system and the analysis has shown that potential negative fishery impacts can substantially reduce the survival of Columbia River upriver stocks. Yet no fish protection provisions have been proposed in the Policy to mitigate these Federal power impacts on fish due to Intertie expansion and use. What mitigation is being proposed for the preferred alternative in order to eliminate reductions in Columbia River fish survival due to Intertie use? We do not believe adequate provisions to mitigate for these adverse impacts have been proposed. The EIS should discuss adequacy and enforceability of all mitigation alternatives, including the fishery agencies' and tribes' repeated recommendations. One mitigation alternative, already proposed to BPA by the fishery agencies and tribes, is the proposed juvenile fish bypass performance standards for mainstem dams on the Columbia and Snake rivers. These standards were developed to provide clearly understood and consistent criteria for evaluation of existing juvenile fish facilities and for the development of such facilities where they are not presently installed. The standards also define objectives for interim spill needed until facilities can be installed and operated at adequate fish guidance efficiencies. The agencies and tribes have considered the limits of available technology, have modeled the survival levels that could be accomplished with these standards and believe that they are not only achievable, but are also reasonable and necessary.

We recommend that these bypass performance standards be adopted by the BPA and incorporated into this and other relevant decision-making processes affecting management of hydroelectric dams on the Columbia and Lower Snake rivers.

VII. Institutional Constraints

The DEIS does not include discussion of institutional impacts. Since current fishery requirements do not provide equitable treatment for fish, the impetus to market power with an expanded Intertie can impair the fishery agencies' ability to negotiate successfully for fish flows and spills on an annual basis.

Finally, we note conflicts between the DEIS and the issue paper circulated for review ("Proposed Long Term Intertie Access Policy Issues"). For instance, the issue paper proposed the addition of a "new standard" for protection of environmental values; "...no adverse impact on fish and wildlife...". This new standard was not included in the DEIS, which proposed limitation of Intertie access based upon whether a resource "...would interfere with the Administrator's efforts for fish and wildlife protection...".

Also, the previously discussed use of the terms "substantial adverse impact" and "substantial decrease" in describing unacceptable levels of impact does not reflect a policy that allows" no adverse impact on fish and wildlife". These conflicts should be resolved, and the DEIS should discuss the issue paper as well as the proposed access policy.

Specific Comments

Summary.

The summary does not clearly stress the major conclusions or the choice among alternatives as required by the NEPA. 40 C.F.R. 1502.12. The major conclusions and the preferred alternative should be accurately and adequately summarized.

Chapter 2. Alternatives, Including the Proposed Actions

The alternatives to be considered are presented in Chapter 2, but it is unclear which of the proposed alternatives is the preferred alternative. The preferred alternative should be clearly designated.

The DEIS states that both the AC and Maximum upgrades have levels of impacts which may indicate a potential need for mitigation, yet no discussion of mitigation actions is presented in this chapter, titled "Alternatives, Including the Proposed Actions." Mitigation alternatives, including their adequacy and enforceability should be discussed.

2.1.2, Page 2-2, paragraph 3. We do not agree that a Finding of No Significant Impact is appropriate for the DC Terminal Expansion project. Our reasons were discussed in detail in our August 8, 1986 letter to BPA.

2.1.4 Maximum Intertie Capacity

Page 2-3, paragraph 8. The 1.32:1 benefit/cost ratio cited here should be adjusted to reflect cost to the fishery (commercial, sport, tribal) and related industries, costs of mitigation of impacts at individual projects, and the costs of full compensation for unmitigable impacts at individual projects.

2.1.5 Comparison of Environmental Effects of Capacity Alternatives

Page 2-4, paragraph 3. The fish stock survivals of the D.C. Terminal Expansion are listed as average stock survivals, yet the estimated stock survivals due to the A.C. and Maximum upgrades are listed as mean relative survivals. Estimated impacts should be presented in the same units for all levels of upgrade so that differences can be compared. We request that the DEIS display

fish impacts as a range to show the full extent of potential impacts.

2.2.2.3 Comparison of Environmental Effects With and Without Long-term Export Sales

Page 2-8, paragraph 8. Assumptions pertaining to small hydropower deferral benefits (136 and 181 average MW) may not be valid for the reasons stated under general comments. Additionally, refer to our general comments on conservation.

2.2.3.1 Non-firm Access Only

Page 2-9, paragraph 1. This discussion implies that the primary incentive to small hydropower development in the Northwest region is the opportunity for firm sales to California. The DEIS should include a discussion of PURPA incentives relative to "Nonfirm Access Only" conditions. The DEIS discussion also implies that Intertie sales of power acquired at PURPA prices will be cost effective.

2.2.3.4 Comparison of Environmental Effects of Access For New Resources

Page 2-9, paragraph 6. The small hydropower deferal benefits discussed here may be erroneous due to the previously discussed constraints and uncertainty (see general comments). Derivation of these benefits and underlying assumptions should be discussed in the EIS. Additionally, the DEIS has not analyzed the potential fishery impacts due to the incentive (provided by an expanded Intertie) for development of non-Federal hydropower. The DEIS states that 277 average MW of new hydropower could be developed with a maximum Intertie expansion and yet potential negative impacts of this new hydropower have not been addressed. Without this analysis, potential negative fishery impacts remain unknown and possible mitigation alternatives cannot be determined.

2.3 Description of Alternative Decision Packages

Pages 2-10, 11. It is not clear which of these decision packages is represented by the proposed Long Term Intertie Access Policy (Volume 2). The decision package that is the proposed alternative should be clearly identified.

2.3.2 Decision Package No. 2

Page 2-11, paragraph 2. The DEIS should describe how fishery resources will be protected from adverse impacts from new resources after the Administrator has determined that such resources are needed for firm sales or after maximum Intertie upgrade. The process described in Volume 2 does not adequately address consultation or the role of fish and wildlife agencies and tribes in this regard.

2.3.4 Decision Package No. 4

Page 2-11, paragraph 6. The policy states that at this stage (7900 MW upgrade) new resources would be reclassified as "Qualifying Resources". The EIS should better describe and discuss fishery protection that would be applied in this reclassification. Also, the EIS should discuss the process whereby the Administrator's fishery enhancement obligations would be preserved, and the fish and wildlife agency and tribal role in that process.

Additionally, Decision Package No. 4 states that new resources which would adversely affect BPA's efforts to enhance fish and wildlife would not be allowed access to the Intertie. Yet the proposed policy has no provision for preventing assured delivery access to the Intertie for new hydropower resources determined to be damaging to fisheries (Volume 2, p.9). How will BPA determine that new resources denied access are not, in fact, providing power for sales on the Intertie or by their operation allowing Intertie sales that would not otherwise occur?

Table 2.1

Page 2-12, line D. Refer to our previous comments on Section 2.3.4 (Page 2-11, paragraph 6).

Page 2-14, line E. The EIS should provide a discussion of small hydropower impacts on fishery values.

Page 2-16, line 4. The source and derivation of the 736 MW value should be discussed.

2.4.3 Environmental Consequences of Decision Package No. 3

Page 2-17, paragraph 4. This section states that slightly higher mortalities would occur among some Pacific Northwest anadromous fish stocks and then asserts that fish protection provisions of the Policy would help insure protection of the region's fishery resources. Assuming the analysis included Policy conditions and the analysis has shown increased mortality to fish stocks under these conditions, we fail to see how the Policy will then insure protection of fishery resources. This seemingly contradictory discussion should be clarified.

2.4.4 Environmental Consequences of Decision Package No. 4

Page 2-17, paragraph 6. Since the DEIS has shown that the Federal Columbia River Power System will have a negative effect on some anadromous fish stocks, why are protection features of the Policy addressed only towards new and existing non-Federal hydroelectric facilities? Since the Federal system is anticipated to cause the negative effect on anadromous fish, the Policy should provide fish protection provisions applicable to the Federal system.

2.4.5 Environmental Consequences of Decision Package No. 5

Page 2-17, paragraph 8. We would not recommend adoption of Decision Package No. 5 because of its large negative impact on Pacific Northwest anadromous fish, nor could we recommend adoption of any Decision Package which results in negative effects to anadromous fish.

Chapter 3. Affected Environment

3.3.2.1 The Hydroelectric System

Pages 3-35, 36. No discussion of small hydropower impacts is included in this section. The EIS should address water diversion impacts, construction impacts, erosion impacts, potential catastrophic impacts and cumulative impacts. The EIS should also discuss commercial, sport and tribal fisheries dependent upon river systems within the region, the value of those fisheries and the potential impacts of Intertie development and access policy on those fisheries.

3.3.2.1.1 Downstream Migrants

Page 3-35, paragraph 7. The statement that the percentage of downstream migrants that pass through turbines ranges from 5 to 30 percent is incorrect. A much higher percentage of migrants passes through turbines at dams without juvenile bypass facilities. For example, at Lower Monumental Dam during periods of no spill up to 97 percent of the juvenile salmonids approaching the dam may pass through the turbines. Mortality to the migrants passing through turbines has been estimated to range from approximately 8 to 33 percent.

3.3.2.1.1 Upstream Migrants

Page 3-36, paragraph 3. We know of no evidence to support the statement that adult salmonids become fatigued and disoriented due to ascending fish ladders. It is our understanding that most of the fish delay associated with dam passage is attributable to locating, entering and remaining inside the fish ladder entrances.

4.2.3.3 New Resource Development

Page 4.2-27, paragraph 2. Refer to our previous comments on Section 2.3.2 (Page 2-11, paragraph 2), and Section 2.3.4 (Page 2-11, paragraph 6).

Page 4.2-27, paragraph 4. The "uncertainty" mentioned here is not discussed in the DEIS. Nor is it reflected in the assumption that 736 aMW of new small hydropower will be in place by the year 2002 under existing Intertie capacity. The EIS should provide a

discussion of this uncertainty as it relates to future small hydropower development and deferral benefits.

4.2.3.3.1 Effects of Expanded Capacity with No Long-Term Firm Contracts

Page 4.2-28, paragraph 1. Refer to our statements on future hydropower development under general comments.

4.2.3.3.2 Effects of Granting Access for Power From New Resources to the Intertie After the Region Reaches Load/Resource Balance

Page 4.2-29, paragraphs 1 & 2, Table 4.2.29. Refer to our previous statements on future hydropower development under general comments.

4.2.3.3.3 Laissez-Faire: No Restrictions on Access for New Resources

Page 4.3-30, paragraph 4. Given the previously described uncertainties and constraints on future small hydropower development, all assumptions regarding new acquisitions may be invalid.

4.2.4.4 Hydroelectric Facilities

Page 4.2-36, paragraph 5. Contrary to the statement appearing here, section 4.2.3 does not assess the likelihood of development of small hydroelectric resources. Rather, that section discusses benefits and detriments in terms of small hydropower acquisitions under various upgrade and access policy alternatives. In evaluating the likelihood of future development, the EIS should address environmental constraints (NEPA, FWP, Regional Energy Plan), economic incentives (PURPA) and the validity of any development assumptions incorporated into this analysis.

4.5.2.4 Hydropower Operations

Page 4.5-15, paragraph 8. The hourly modeling analysis was limited by not including long-term firm contract scenarios at different upgrade levels. Since daily and hourly operations at hydroelectric facilities have the greatest potential for damaging effects on anadromous fish, use of only an average period simulation for long-term firm contract scenarios is inappropriate. Hourly analysis for long term firm contract scenarios should be conducted to assess potential impacts to anadromous fish.

Page 4.5-16, paragraph 1. The assumption of maximum fish transportation is unrealistic. Present guidelines provide for in-river passage of spring chinook under certain flow conditions. These guidelines should be incorporated in the modeling analysis. Also, the assumption of maximum fish transport reduces the number

of fish remaining in the river, masking the negative hydrosystem impacts on anadromous fish. This assumption is inappropriate and should not be used in the analysis.

Pages 4.5-17 to 24, Tables 4.5.-10 to 17. The table and discussion do not provide the information necessary to determine if both spring chinook and yearling fall chinook have been included in the analysis. Since spring and summer chinook from the Lower Monumental pool are shown to suffer reduced survival, we would presume that yearling fall chinook from Lyons Ferry hatchery would also suffer reduced survival. This fall chinook stock is projected to be released as yearlings until sufficient numbers of adults are returning to the hatchery for brood stock and therefore, this stock should be included in the analysis. Reduced survival of Lyons Ferry fall chinook (released as yearlings) due to Intertie expansion and use has the potential to delay achievement of hatchery production goals.

Pages 4.5-17,18,19, Tables 4.5.10 to 12. The overall trend with Intertie upgrades is a decrease in fish survival. Since the modeling analysis can indicate trend much better than specific amounts of reduction in survival, a reduction in fish survival could be expected to occur with Intertie upgrades. We recommend that the EIS address, clearly and in detail, the proposed mitigation alternatives for this potential, but probable, reduction in anadromous fish stocks.

Page 4.5-22, paragraph 3. Effect of Long-Term Firm Contracts. As stated previously, we do not believe the potential effects of long-term firm contracts can be estimated without hourly analyses. It is also unclear whether non-firm allocation options have been included in the long term firm contracts scenarios. We would presume that in reality, both types of sales would be occurring at the same time on the Intertie. We recommend that firm contract scenarios include non-firm allocation options and that the analyses include hourly computer runs.

Page 4.5-24, paragraph 2. Spill and Flow Effects on Survival: Significance of Survival Changes. We disagree with the rational used in determining the significance of survival changes in fish stocks. It is illogical to assert that because some fish stocks are or are not showing a trend in increased escapement that reductions in survival are significant or not. Reduced survival of these stocks is inconsistent with the purposes of the NWPA and the objectives of the Northwest Power Planning Council's Fish and Wildlife Program for restoration of depleted upriver stocks. Reduction in survival of these stocks for yet more hydropower development would undercut efforts to restore these upriver fish.

Page 4.5-28, paragraph 3. Spill and Flow Effects on Survival: Possible Mitigation Measures. The approach to mitigation alternatives is inadequate. NEPA regulations require inclusion of mitigation measures not already included in the proposed action or alternatives. 40 C.F.R. & 1502.14(f). Turbine screening and juvenile bypass systems at all dams have been included as assumptions in the modeling analysis. The analysis has shown that significant reductions in fish survival can occur with these assumptions. Therefore, installation of turbine screening and bypass systems at dams presently without these facilities cannot be considered mitigation. The other possible mitigation measures discussed in this section are already being used to offset existing hydropower system losses. Additional mitigation measures need to be considered.

Pages 4.5-28, 29, paragraph 7. Anadromous Fish: Hanford Reach Spawning and Emergence Flows. The use of average April flows in this analysis is inconsistent with other analyses conducted by the BPA, Corps of Engineers and other hydrosystem regulators. Other hydrosystem analyses divide April into two periods because flows can change dramatically during this month. The use of average April flows masks the potential for low flows in early April, a critical period of fall chinook emergence. The analysis should divide April into two periods to assess potential impacts on emerging fall chinook in the Hanford reach.

Also, the analysis does not address the amount by which the flow did not meet the cut-off criteria. Each increment of reduced flow desiccates more redds so that missing the criteria by one or two thousand cubic feet per second (cfs) has much less impact than missing the criteria by five or ten cfs.

We believe this analysis is inadequate for the reasons stated above and recommend that Hanford Reach flows be re-analyzed for potential impacts to fall chinook.

The modeling analysis suffers from several additional deficiencies.

- It fails to consider improved fish protection as requested by the fishery agencies (increased Water Budget flows, increased spills).

- The results fail to show the range of error associated with the output of the model.

- No analysis for non-Columbia basin projects or Columbia River tributary projects was performed.

Appendix A

Page A-1, paragraph 6. The load growth uncertainty mentioned here

may have a major impact on future small hydropower development, and should be addressed in the EIS.

A.1.4.1 Load/Resource Forecasts

Page A-3, paragraph 1. The reliability of BPA's 1985 long-range medium load forecast should be discussed. This forecast should also be compared with a range of other regional load growth forecasts.

Page A-3, paragraph 2. The "December 1984 assessment of planned regional resources" should be further discussed and compared with the NPPC's Regional Energy Plan.

A.2.1 Model Description

Page A-8, paragraph 2. The EIS should note that the Least Cost Mix Model does not include fish and wildlife mitigation costs or other environmental costs. Analyses should be adjusted to correct these omissions.

Appendix C

Table C.3. A number of fish guidance efficiencies (FGE) used in the FISHPASS analysis are extremely optimistic. In particular, the FGE's for steelhead appear to have no basis for use in the final EIS (for example, the estimate that FGE's for steelhead at Lower Granite and McNary dams will be 90 percent in 1992). We recommend that projected FGE's for the analysis be based on the Corps of Engineer's latest bypass construction schedule and tested FGE's for steelhead. Where tested FGE's are not available FGE estimates for yearling fish should be used for steelhead. Since the Corp's schedule shows no bypass screens at The Dalles until 1993 at the earliest, FGE's of zero would apply there in 1992 for all species.

Table C.3 fails to show the FGE's used in the base case analysis. These FGE's should also be presented for review.

VOLUME 2.

Proposed Long Term Intertie Access Policy.

General Comments

Although the proposed Policy is an improvement over the Near-Term Policy, the NMFS remains concerned about adequate and enforceable fishery conditions in the Policy. We believe the present fishery conditions to be inadequate, in part due to the lack of a reporting requirement and in part due to the unenforceability of the proposed fishery conditions. We are also concerned about the Policy's exclusion of Federal projects from its fishery provisions.

As in the past, we continue to recommend a reporting requirement which will require certification of consistency with the Policy by responsible utility officials. The existing and proposed fishery conditions do not require certification of consistency by responsible utility officials to assure accountability.

We have also recommended procedures for enforcement of fishery conditions. In April, 1986 the NMFS formally challenged the presumption of no adverse impact to fish by several hydroelectric resources. As of this date, we have received no written reply to our formal challenge. As shown by this challenge, there is little procedure for enforcement, let alone prompt enforcement. Thus, BPA cannot assert that Policy fishery conditions provide procedures for adequate enforcement. Our detailed comments follow.

Specific Comments

A. Definitions

The Policy is complex and difficult to understand as presented. Future impacts due to actions guided by the Policy are difficult to envision. Some of the complexity is due to the number of definitions used to distinguish between similar subjects. For example, it is unclear how the policy will provide protection for fishery values given that no environmental criteria are established in the definition of "Qualifying Resource." We believe that environmental assessment involving the fish and wildlife agencies and tribes should be included when making determinations based on definitions of "Qualified Resources".

For your consideration, we have developed draft language to simplify the definitions, reduce ambiguities in language, and improve the fish protection provisions.

Page 3, paragraph 2. Redefine definition #14 to read as follows. "Qualified Pacific Northwest Resources" means: Regional resources

that have been determined to have no adverse impact on fish and wildlife resources.

Page 3, Item 18: Remove "substantial" from definition #18. Redefine #18 to read: "Adverse impact" means a negative effect determined by the fish and wildlife agencies and affected Indian Tribes, in consultation with Bonneville Power Administration, to be of such nature as to require remedial action.

C. Conditions for Intertie Access

Page 4, paragraph C.3.c.(1). Remove "New Hydroelectric Plant" and replace with "Qualified Pacific Northwest Resources." Remove "substantial."

Page 4, paragraph C.3.c.(3). Insert "including BPA Resources" after "Pacific Northwest Resources" and delete "substantial" and "substantially."

I. Procedures for Review of Compliance and Remedies

Page 12, paragraph I.3.(a). Change "presumes" to "requires" and remove "other than New Hydroelectric Plants."

Page 12, paragraph I.3.(b). Remove "challenge the presumption" and replace with "assert." Change "consistent" to "inconsistent." Change "challenge" to "assert."

Page 12, paragraph I.3.(c). Remove "challenge the presumption" and replace with "assert." Delete "substantially."

Page 13, paragraph I.3.(e). The Policy, as in the Near Term Policy, has no means of enforcement for existing resources. The proposed Policy provides that BPA would not provide access to the Intertie for a resource that is adversely impacting fish and wildlife.

Yet BPA has admitted that it is not possible to determine which resources are supplying power for Intertie sales when a utility has access to the Intertie. Therefore, a utility could continue to operate a resource damaging to fish and wildlife, asserting that the power from that resource is being sold in the Pacific Northwest. In our view, the preferred means of enforcement is for BPA to refuse access for a utilities' entire Intertie allocation if a resource damaging to fish and wildlife, new or existing, is in the resource stack of that utility.

Page 13, paragraph I.e.(2). Expenditures in lieu of modifications to remove adverse impacts may be inconsistent with the Fish and Wildlife Coordination Act, NEPA, NWPA, and other applicable laws. These expenditures may be appropriate in some circumstances but we certainly do not condone the use of this

approach in general. Resource agency and tribal involvement should be incorporated into this decision-making process.

Use of the wording "not inconsistent" is ambiguous. Use of clear terminology, such as "consistent" would be more forthright and clearly understood by all concerned.
Page 13, paragraph I.(f). Change all references to "New Hydroelectric Plant" to "Qualified Pacific Northwest Resource."

Page 13, paragraph I.f.(1). The time allocated to determine if a resource has adverse impact on fish and wildlife is excessive (180 days). We recommend that determination be made within 30 days.

Page 13, paragraph 8, I.g. Change all references to "New Hydroelectric Plant" to "Qualified Pacific Northwest Resources." Remove "substantial." Remove "significant."

Page 14, paragraph 2, I.g.(1). Remove "significant."

Page 14, paragraph 3, I.g.(2). Remove "significant."

CONCLUSION

For the reasons we have identified above, the DEIS and Policy will require substantial revision to adequately and accurately explore fishery impacts and mitigation measures. Consequently, the National Marine Fisheries Service urges the Bonneville Power Administration to prepare a supplemental DEIS addressing our comments for further public review. We appreciate the opportunity to comment on this important matter.

Sincerely,

Dale R. Evans
Division Chief

Enclosure

cc: Donaldson, CBFWC

Attachment
TIE-1-47

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
ENVIRONMENTAL & TECHNICAL SERVICES DIVISION
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AUG 8 1988

Mr. Timothy J. Murray, Chief
Environmental Analysis Branch
Engineering and Construction
Bonneville Power Administration
Portland, OR 97208

Dear Mr. Murray:

The National Marine Fisheries Service (NMFS) has reviewed the Bonneville Power Administration's (BPA) Supplemental Environmental Assessment (EA) of the D.C. Terminal Expansion Project. We have also reviewed the Terminal Expansion Supplemental EA: Errata. Our general comments follow.

As stated in our comments on the Terminal Expansion EA of February, 1985 (letter to Ms. D. L. Geiger, April 26, 1985), we believe the Terminal Expansion and other related Intertie actions should be addressed comprehensively in a single Environmental Impact Statement (EIS). We believe that all major Intertie actions are related and may have cumulative fisheries impacts not addressed in an analysis of only one action. Under Council on Environmental Qualities (CEQ) regulations, cumulative actions and reasonably foreseeable similar actions must be considered together under the National Environmental Policy Act (NEPA). 40 CFR Section 1508.25. We are, therefore, in disagreement with the assertion in the EA that the DC Terminal Expansion (TE) is independent of other actions. For instance, the TE cannot be independent of the Long-Term Intertie Access Policy (LTIAP) which will govern access and use of this Intertie expansion. Since the LTIAP is scheduled to be in place before construction of the TE is finished, the impacts of the LTIAP relative to the TE need to be addressed prior to the decision to implement the TE. The means to address this requirement is inclusion of the TE in the Intertie Development and Use EIS (IDUEIS).

Additionally, it is inappropriate for the EA to assert that the TE is the first Intertie project nearing construction and, therefore, only environmental documents for subsequent actions will consider any cumulative effects of Intertie actions. The existing Intertie was the first Intertie project, thus making the TE the first subsequent action requiring analysis of cumulative impacts. Under CEQ regulations a single EIS should be used when it is the best way to assess the combined impacts of similar actions and reasonable alternatives. 40 CFR Section 1508.25. Our

understanding was that the TE was included in the IDUEIS as the first stage of a cumulative Intertie expansion analysis. To now separate the TE from the IDUEIS is inconsistent with the original intent.

Further, the EA asserts that despite the fact that the TE might affect future resource development, those actions are not within the scope of this EA. We disagree because impacts that must be assessed under NEPA include both direct and indirect effects that are reasonably foreseeable. 40 CFR Section 1508.8. Expansion of the Intertie could result in arriving at load/resource balance at an earlier point in time, with the concomitant development of hydropower resources potentially damaging to fisheries. Since the the EA does not address the potential impacts of these actions, we believe the analysis of potential TE impacts to be deficient.

Several previously recommended analyses have not been addressed (letter to Mr. S. Smith, Nov. 15, 1985). In particular, analyses have not been conducted incorporating larger Water Budget flows and required levels of spill greater than provided in the 1985 spill plan. Water Budget flows and the 1985 spill plan are, in our view, minimum requirements for fish protection. The TE may reduce the potential for adequate fish protection provided by increased Water Budget flows and spill for fish. Without such analyses, we believe the EA to be deficient.

Finally, as we have previously stated (letter to Mr. S. Smith, July 18, 1986), there are aspects of project impact that are difficult to quantify using computer modeling. Requests for fish protection to be met "within system flexibility" may be more difficult to achieve when an expanded Intertie provides for increased power sales to the Southwest. Institutional and decision making impacts that can occur in the absence of hard fishery constraints need to be addressed and can be in the IDU-EIS. Our specific comments follow.

1. Pg. 3, last paragraph. We question the assumption used in the analysis that current long-term firm power sales contracts will not be renewed nor replaced with similar contracts. BPA appears to be expending considerable effort on development of long-term contracts such as the proposed Southern California Edison contract. We believe it would be more realistic to include current long-term firm power contracts in the analysis to better represent current operations and the resulting potential impacts to fish.

2. Pg. 7, first paragraph. We disagree with the assertion in the EA, based on Karr (1982), that the biologically acceptable time limit for fish travel from Snake River rearing areas to salt water is about 30 days. Karr (1982) states that coastal coho salmon smolts maintain elevated thyroxin levels for a maximum of only about 30 days and that if this is applicable to Columbia River coho, flows should be provided to move coho smolts to saltwater

within this time period. Karr also states that every effort should be made to move steelhead smolts from rearing areas to saltwater as rapidly as possible and that travel time for all smolts should be kept as short as possible. Additionally, the Smolt Monitoring Program has determined that spring chinook released above Wells dam in 1984 had an average travel time to McNary dam of 26 days and in 1985, smolt travel time for the same reach was approximately 38 days. Adding the travel time from McNary dam to John Day dam of approximately four days for each year means that considerably more than 30 days was required for spring chinook above Wells Dam to migrate to salt water in 1984 and 1985. To then assume that an increase of one additional day is insignificant is inappropriate, since the system has already been shown to cause excessive delay to migrating salmonid smolts.

3. Pg. 10, second paragraph. We object to the implication that because changes are smaller than the range of variability in natural water conditions that reductions in survival are insignificant. Consistently lower survival within the range of natural variation is still a negative impact.

4. Pg. 11, first paragraph; pg. 34, third paragraph. We disagree with the rationale for determination of insignificant fishery impacts as presented in the EA. Recent improvements in fish runs due to an improved ocean environment and improved passage facilities are not justification for reducing survival of upriver stocks for yet more hydropower system development. First, reduced fish survival is inconsistent with the objectives of the Northwest Power Planning Council's Fish and Wildlife Program for enhancement of depleted upriver stocks. Second, use of one of the poorest 10-year averages for Wells pool summer chinook minimizes the estimated impact. Third, as we understand your calculations of relative and absolute decreases in survival, the 2.4 percent maximum absolute difference is related to the 9.2 maximum percent relative difference as follows: 2.4/base case system survival = 9.2. This means that the base case system survival is only 26 percent and therefore, 74 percent fish mortality is primarily attributable to the hydro system. Given existing impacts of this magnitude, we fail to see how any level of additional decrease in survival could be determined to be insignificant and decreases of greater than five percent are certainly unacceptable.

5. Pg. 9, first paragraph and Appendix A, Table A.3. Federal project fish guidance efficiencies (FGE) attainable by the year 1992, as used in the FISHPASS analysis, are extremely optimistic. Substantial delays in bypass construction, along with continued fish guidance problems, could result in considerably lower FGE's than used in the analysis. Additionally, the assumption that present FGE's of 38 and 20 percent at McNary and John Day dams will not improve by 1992 and yet FGE's at Lower Monumental and Ice Harbor dams, where no screened bypass systems presently exist, will be 70 percent, is not consistent. We recommend that if optimistic FGE values are used, analyses also be made using

minimum expected FGE's. In fact, due to the complexity of the system being modeled and the uncertainty of many impacts, we recommend that outputs always be presented in terms of a range. As an example, use of only optimistic FGE's at Snake River transportation projects with the resultant removal of a large percentage of fish for transport (to which a high survival rate is assigned) can result in minimizing potential fishery impacts due to Intertie expansion.

6. Pg. 9, first paragraph and Appendix A, item 10. The assumption that all fish collected are transported is unrealistic. Present transportation guidelines provide for in-river passage of spring chinook (during the first 80 percent of the migration) in the Snake River when flows are over 100 kcfs and at McNary dam when flows exceed 220 kcfs. These transportation guidelines should be incorporated in the analysis. Additionally, attributing survival rates of 95-99 percent for transported fish fails to recognize that data indicate transported fish do not return at the same rate as non-transported fish. Use of these survival rates can result in erroneous system survival estimates because fewer adult fish will return than predicted. An adjustment needs to be made for differential adult returns.

In conclusion, we recommend that the IDU-EIS be completed prior to any additional action on the Terminal Expansion. Potential negative fishery impacts due to the DC Terminal Expansion and related actions are potentially of such magnitude as to warrant a full comprehensive analysis in the IDU-EIS.

Thank you for the opportunity to comment.

Sincerely,

Original Signed By
Dale R. Evans
Dale R. Evans
Division Chief

Murray:ROSS:jmr/8-8-6

Attachment
TIE-1-47

REPORT ON BONNEVILLE POWER ADMINISTRATION
RESPONSE TO COMMENTS ON THE SUPPLEMENTAL
ENVIRONMENTAL ASSESSMENT AND ADMINISTRATOR'S
DECISION RECORD ON THE DC TERMINAL EXPANSION

Prepared by:
National Marine Fisheries Service
Environmental and Technical Services Division
Portland, Oregon

December, 1986

REPORT ON BONNEVILLE POWER ADMINISTRATION RESPONSE TO COMMENTS ON THE SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT AND ADMINISTRATOR'S DECISION RECORD ON THE DC TERMINAL EXPANSION

The National Marine Fisheries Service (NMFS) has reviewed the Bonneville Power Administration's (BPA) Supplemental Environmental Assessment (EA), the Finding of No Significant Impact (FONSI) dated August 29, 1986, Comments on the (EA) dated August 29, 1986, and the Administrator's Decision Record dated October 7, 1986 for the proposed DC Terminal Expansion. Because the documents raise new or modified issues and BPA positions, NMFS has prepared this report.

Our comments address three categories:

Scope and Relation to Other Intertie Actions

It is NMFS' position that the DC Terminal Expansion and other related Intertie actions should have been addressed comprehensively in a single Environmental Impact Statement (EIS). All major Intertie actions are related and may have cumulative fishery impacts not addressed in an analysis of only one action, such as the Terminal Expansion. In our view, there is no good reason why analysis of the Terminal Expansion was done separately from the BPA Intertie Development and Use (IDU) EIS.

It is clear that the operational mode and priorities for the DC line will be determined as an outcome of the IDU-EIS process. BPA staff acknowledges that the rules governing access to the DC Intertie, as determined by the Intertie Access Policy, shape the environmental effects of DC Intertie operations. When the DC Terminal Expansion is completed, a Long-Term Intertie Access Policy developed through the IDU-EIS will be in effect rather than the Near-Term Policy referenced by BPA in its EA and FONSI conclusions. Thus, the operational assumptions for the EA and FONSI may not apply at the time the expansion is complete. For example, the EA failed to accurately consider how the additional 1,100 MW would be allocated on the Intertie. Because of this piecemeal approach, we consider the EA to be inadequate.

Additionally, the use of "tiering" as the justification for an EA separate from the IDU-EIS is, in our view, improper. Under CEQ regulations, tiering "refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses." 40 C.F.R. 3 1508.28. There is presently no broad or programmatic EIS available on all expanded Intertie proposals to tier the EA and FONSI on.

Inadequacy of the Modeling Analysis

NMFS, the Columbia River Inter-Tribal Fish Commission (CRITFC), the State of Idaho, the Washington Department of Fisheries (WDF) and the Northwest Power Planning Council (NPPC) have pointed out, in detail, the inadequacy of the modeling analysis (letters of NMFS - August 8, 1986, CRITFC - August 8, 1986, Idaho - August 8, 1986, WDF - September 5, 1986, NPPC - August 8, 1986). BPA's FONSI, Comments on the EA and Decision Record rely exclusively on the modeling analysis, and fail to address the following basic concerns.

First, the modeling analysis has been improperly applied. Use of point estimates of survival values (0.024, Errata Attachment 2 to the EA) derived from modeling to represent true or actual survival, as has been done, is clearly wrong. With the large ranges existing in available biological data, use of point estimates for parameters which result in an absolute point estimate for a survival output is not a correct use of modeling. Additionally, use of one of the poorest 10-year redd count averages as well as redd counts instead of Wells Dam adult fish counts results in a minimum estimated negative impact on Wells pool summer chinook. Use of Wells Dam adult fish counts over the same 10-year period would result in a fish loss estimate three times greater than shown by a minimum estimate of redd counts. Application of an absolute survival rate, to then arrive at an absolute number of adults and smolts to be affected, fails to show the range of potential error from an incorrect quantitative use of a point estimate.

Second, while the modeling analysis may be based on what BPA believes to be the best available information, that information has serious limitations because of the complexity of the management of Columbia River water and its fish runs. Yet, the EA has not disclosed the uncertainty inherent in the modeling analysis. The use of point estimates for parameter inputs gives no indication of the range of uncertainty inherent in the data. A range of values on key parameters should be used to show a range of survival outputs. Reliance on a "sensitivity analysis," an analysis not made available before the FONSI and EA were released, does not resolve this concern.

Third, use of the optimistic fish guidance efficiencies (FGE's) projected for 1992 by the Corps of Engineers for Federal projects results in a smaller relative difference between the base case and the DC Expansion case for fish survival at each dam. The resulting smaller difference then provides an erroneous basis for the conclusion of no significant impact on fish survival due to the DC Terminal Expansion.

Fourth, although the EA states that studies show small probability of changes in river operations, we find no

presentation of this information (i.e., change in total spill or change in overgeneration spill) in the Supplemental EA or FONSI. Given that nitrogen super saturation can generally be controlled, a reduction in total spill or overgeneration spill would indicate a reduction in juvenile fish survival. A presentation of these changes in hydro system operations, with particular emphasis on upriver projects, would be a much more direct approach to impact analysis than survival modeling, since it removes the necessity for numerous assumptions, each with a large range of variation.

Fifth, we find it contradictory that the analysis showed substantial reductions in survival of mid-Columbia stocks that passed nine mainstem dams, but no reduction in survival was indicated by the analysis of Snake River stocks which must pass eight mainstem dams. In our view, the lack of DC Terminal Expansion effects on upper Snake River stocks is an artifact of the modeling exercise. The assumed high FGE's at Lower Granite and Little Goose dams, particularly for steelhead and sub-yearlings, hypothetically remove most of the fish from the Snake River for transport around the dams and these fish cannot, then, be impacted by project operations. For example, removing 90 percent of the steelhead at each of the two dams results in only 1 percent of these fish hypothetically remaining in the river. Such an analysis is unrealistic and dilutes evaluation of impacts to fish remaining in the river.

Finally, the EA must be questioned because assumptions and values used in the analysis for the IDU-EIS were not used in the analysis for the EA. For example:

A. Restricted operation of Bonneville Powerhouse II (EA) vs. unrestricted operation of Bonneville Powerhouse II (EIS).

B. Reservoir mortality of 0.7 percent per day (EA) vs. 1.85 percent per day (EIS).

Analysis of the same potential impacts with different assumptions and operational conditions in the EA and the EIS is inconsistent use of the modeling analysis.

Threshold For Significance of Impacts

The rationale used for determination of insignificant fishery impacts cannot bear close scrutiny, for the following reasons.

First, the conclusion that operation of the DC Intertie will have no more than minimal affects on resources in the Pacific Northwest is unsubstantiated. The analysis has shown that there is a 10 percent probability of a greater than 5 percent decrease in survival of Wells pool summer chinook (up to a 9 percent decrease), Wells pool steelhead, and Tucannon River spring

chinook due to operation of the DC Intertie after expansion. These impacts alone shows the FONSI to be inappropriate.

Second, we object to the implication that because changes in survival are smaller than the range of survival due to natural water conditions, that reductions in survival are insignificant. Consistently lower survival within the range of natural variation is still a substantial negative impact.

Third, we disagree with the rational used in determining "biological insignificance." It is illogical to assert that because recent improvements in fish runs have occurred that reductions in survival are not significant. Recent improvements in fish runs due to an improved ocean environment and improved passage facilities are not justification for reducing survival of upriver stocks for yet more hydropower system development.

Fourth, reduced fish survival is inconsistent with the objectives of the Northwest Power Planning Council's Fish and Wildlife Program for restoration of depleted upriver stocks. Numerous efforts, many which are funded by BPA, are now underway to rebuild these stocks. Given the existing hydrosystem impacts on fisheries (74 percent mortality according to BPA's analysis), it makes no sense to increase negative fishery impacts at a time when a decrease is required. Any reduction in survival is inconsistent with efforts of the BPA, the Corps, the fish and wildlife agencies, the tribes, and the Northwest Power Planning Council to rebuild upriver fish runs.

Finally, to compare the loss of upriver fish, attributable to the DC Expansion, to fish harvest is meaningless. We could likewise compare the relatively smaller number of fish harvested by fisheries to the millions killed in turbines and reservoirs as a result of the existing hydrosystem. Harvest effects on upriver stocks are being addressed in other fora, and severe harvest restrictions are now in place. The point of our efforts to restore the runs is being missed. The point is to restore productive harvest by fishermen and eliminate or reduce unproductive harvest in the form of dam-related mortalities.

Conclusion

For the above reasons, NMFS believes that the analysis and conclusion regarding the fishery impacts of the DC Terminal Expansion cannot be substantiated. The EA has failed to consider the operational policies that will be in place upon completion of the Terminal Expansion or the full range of pending Intertie actions. Although a lengthy and detailed modeling analysis of potential impacts has been conducted, it has failed to address the range of values and uncertainty inherent in the exercise. More importantly, even these modeling results show significant fishery impacts. Under these circumstances, NMFS believes that

equitable treatment for anadromous fishery resources has not provided.

MR. GALE C. CORSON
594 S.E. Craven Rd.
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503/389-4896

December 26, 1986

1355 NW Harmon Blvd
Bend, OR 97701

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212

Comments: Proposed Long Term Intertie Access Policy
and Draft Environmental Impact Statement

The comments about the IAP which follow are submitted on behalf of the Central Oregon Peoples' Utility District. Our comments will be most meaningful if we place them in context with a few remarks about the PUD.

The Central Oregon PUD was formed in 1940 and has maintained a continuous existence since then, but has never acted in the capacity of an operating utility to generate, buy, sell, or distribute electricity. In recent years, however, there has been an upsurge of interest such that the District has been looking at service options. In November, voters elected Directors who are promising action to benefit people living within the District. The undersigned are Directors and Directors-elect of the Central Oregon PUD acting in our individual capacities.

Among the options available to the District are three which could affect the power surplus picture and influence how the Intertie policy will impact not only the District but also other utilities and BPA. The first of these possibilities is for the PUD to initiate operations as a distributing utility in the area currently served by Pacific Power in Central Oregon; as a preference customer, the PUD would be able to draw upon BPA for one of several possible sources of power. The second option is to exercise a long-standing contract with PGE whereby the PUD would acquire their Pelton Dam and its generation. The third relates to the excellent potential for geothermal-electric development in Descuhutes County.

It is too early for the PUD to make any commitment concerning these options, but it is not too early to explore how they will interact with decisions being made elsewhere in the Pacific Northwest, including BPA's work on the Intertie policy. Directors of the PUD clearly want to make decisions which are both beneficial and realistic. It is important to anticipate the impacts of our decisions, and at the same time to make sure the working environment is as favorable to the PUD as possible.

1. Our first concern is to maintain meaningful communications with BPA. We appreciate the helpful responses we have already received to our questions. We need to be sure, moreover, that BPA not only recognizes the reality of the Central Oregon PUD but also seeks to establish working relations with the PUD which include planning and anticipate likely future operations. We want to be sure that interests of the Central Oregon PUD are indeed being considered along with those of others as BPA completes its

policy deliberations - not only on the Intertie but also in other matters.

2. As a developing utility we are sensitive to issues of haves and have nots. At the moment we are a "have not", but we want to change that, avoiding barriers which would inhibit our progress. As it stands, BPA's draft Long Term Intertie Access Policy is seen as maintaining the status quo - quite possibly freezing the PUD out of desired advances. We doubt that this is BPA's intent; the situation arises instead from COPUD's need to make itself more visible to BPA personnel and also from BPA's need to address the power surplus policy issue. If the time should come when the Central Oregon PUD has reason to gain access to the Intertie, we want to be reasonably sure that we will have that opportunity and will not be frozen out of the picture forever by other actors who admittedly got into line before us.

3. At the same time, we want to support the concerns voiced by non-generating full-requirements utilities; they are rate-dependent on BPA's other revenue-producing activities including the Intertie and the value it holds for BPA's own power sales. For this reason we agree that BPA should seek maximum or near-maximum revenues from the Intertie. But we question that the present policy proposals necessarily achieve that objective either the best way or to the exclusion of other options. In particular we suggest that more innovative pricing structures such as cost offsets or compensating payments, and more attention to competitive market concepts among Pacific Northwest entities, might give more flexible access to the Intertie and at the same time create greater economic benefits. Revenue maximization should be viewed not as a this-year analysis, but rather as the present value of the expected revenues in future years as well, in which favorably priced long term contracts for regular deliveries outweigh the temporary advantage of being able to sell dump power, for example. Concerns for being able to return power to the Northwest when needed are probably better met by long-term contracts with staggered expirations than by a succession of short-term contracts for which buyers are unwilling to pay favorable prices.

4. If the Central Oregon PUD does exercise its contract with PGE to acquire the Pelton Dam, we want to be sure its benefits are fully available to the people of Central Oregon - as indeed the contract envisions. We are especially concerned about a comment made by a PGE spokesperson at BPA's December 10 public hearings on the Intertie, to the effect that BPA should do something about "contrived" surpluses, and what to do about them. The suggestion made there was that in the transfer of any generating resource, any surplus associated with that resource should be retained by the original owner, together with any rights for Assured Access. We disagree. A transfer of ownership of a regional resource by itself neither increases nor reduces the regional surplus, although it may shift the surplus between affected entities. If COPUD were to acquire Pelton, its dependence on BPA power might possibly be reduced to the point that it would even be able to show a surplus based on a resource qualified for access to the Intertie, but PGE would have a correspondingly smaller surplus. We believe that existing practices and the draft policy's current provisions for determining resources on Exhibit B are not only satisfactory but also address BPA's legitimate concerns.

5. At the same time, the policy should include express provisions to assure qualifying access to the Intertie on the part of entities which do not meet definition 17, page 3 of the draft IAP. If the Central Oregon PUD had a qualifying generation resource it could if necessary take steps to become a "utility that operates a generation control area within the Pacific Northwest", and thereby have access under the policy; but the alternative of being sure of access through BPA would probably be preferable.

6. If the Central Oregon PUD does decide to encourage the development of geothermal-electric resources in Deschutes County (or elsewhere in Central Oregon for that matter), we would do so in part because we expect geothermal electricity to become an important renewable energy resource of the future, one which will be low-cost, environmentally benign, and contribute importantly to the economy of Central Oregon. We would do so also in support of the Power Council's 1983 and 1986 power plans, which encourage demonstrations in the development and application of such resources. Consistent again with the Power Council, we want the ability for it to reach markets in addition to those in Central Oregon, and that means access to the Intertie. We think it would be inappropriate for local populations to take the brunt of resource costs which are temporarily higher than others while lower-cost resources are shipped to California, especially when all of the Pacific Northwest would eventually benefit from the developments. Even with a power surplus, we have a present need to allow access on the Intertie for limited amounts of geothermal power, and thereby avoid the day when needing more power we bypass geothermal development simply because we did not carry out the demonstration projects when we had the chance. We think the Volume I EIS on the Intertie is unfortunately inadequate in its treatment of geothermal resources, given their potential and their probable development on a large scale.

7. Finally, we are disturbed about some environmental concerns which seem to be misplaced. All of us have concerns for the environment, although we may disagree on expressions and priorities, and a few people have taken the lead in actively pursuing improvements intended to benefit all of us. Some of those concerns are evidenced through the Intertie access policy, because use of the Intertie means the operation of generating resources, all of which impact our environment in one manner or another. Even conservation resources have impacts, such as reduced air quality in weatherized buildings. One reaction has been to see if we can export our concerns; relying more extensively on Canadian resources, for example, may shift impacts without avoiding them and to the extent that this is the intent it is morally reprehensible. The same spirit is evidenced in reverse when we say we want to avoid being a dumping ground for the environmental problems of other regions; thus the Power Council's power plan, for example, says we don't want to become an energy farm. Such presentations need better balance. Alaska and Texas delight in being energy farms, they just wish they could sell more oil at better prices. Montana or Wyoming or both charge a separation tax for coal, and are glad to get the revenue. An energy farm is "bad" only if we suffer more than we gain. The smart option is to concentrate on how to get economic benefits in exchange for environmental impacts so low as to be negligible. If further hydroelectric development is objectionable let us look further to our alternatives rather than cut them off with opposition to the Intertie or with negative connotations about "energy farms". One reason we want geothermal resources to be demonstrated commercially is because with smart development and appropriate regulation we think they could become important producers with negligible environmental costs.

Thank you for the opportunity to comment on issues which could affect millions of people from north to south along the Pacific Coast. We hope you have found our comments to be constructive and useful.

Norman R. Schultz

Norman R. Schultz, Director and Chair
Central Oregon Peoples' Utility District

Paul Converse

Paul Converse, Director
Central Oregon Peoples' Utility District

Harlan H. Huston

HARLAN H. HUNSTON, DIRECTOR-ELECT

Bill J. Graham
HC 62 Box 58B
Malin, Oregon
97632

Donna L. Geiger, Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999-ALP
Portland, Oregon 97212

re: Comments-- Intertie Development and Use-Draft EIS

Vol 1, section 4.5, sub section 4.5.2.4.2, Pg. 4.5-9

In regards to the effect of increased power generation on the survival rate of fish in the Columbia drainage system, I find the information and analysis to be limited in scope.

System stock survival calculations were made for each of only three years, 1992, 1997, 2002. The accumulative effects on survival rates may be significantly different in the interium years you have omitted.

It appears the greatest possibility of a decrease in survival rates occur in 1992 with some instances of increased survival rates in later years. These figures do not reflect that the increased survival rates may have occured on a decreased population from previous years. If the four years prior to 1997 each had insignificant decreases, which accumulatively adds up to a significant decrease, the increase in 1997 and subsequent years may not be great enough to restore the populations of fish to an acceptable level.

Does the 1.5% "mean" decrease in survival populations transfer into a 1.5% decrease in the economies of the P.N.W. that are tied to the importance of the fishing industries, be it commercial or sport fishing?
Will there be a decrease of 1.5% of any other biological factor that is dependent on the fish in the Columbia River system? Or will there be an accumulative effect on all of these in years to come?

I compliment B.P.A. on their concern about the importance of water quality and fish, and ask that they carefully scrutinize every possibility and angle before drawing a conclusion on these very important resources of the P.N.W.

Vol. 2 - Proposed Long Term Intertie Access Policy
Pg. 6 - (2) b. "assured delivery may be provided for a maximum of 20 years"

I find this clause relating to 20 year contracts in the Long Term Intertie Access Policy to be detrimental to the future concerns of the Pacific Northwest as a whole and potentially devastating to smaller areas within the region.

In light of the unstable world oil prices and conditions in the P.N.W., twenty years are far to distant into the future to guarantee entities outside the region a firm hold on our resources and electrical power. I am not opposed to extra revenue from selling the P.N.W. surplus firm power, as long as we have that surplus. In light of the projections of the P.N.W. firm surplus being depleated in approximately 1997, this leaves about 10 years of estimated firm surplus power.

While B.P.A. has assured us that the contracts would most likely convert to a form of contracted power exchanges at the time the region runs out of firm power- or reaches resource balance- we cannot be assured that utilities that service consumers would be so fortunate. Due to unpredicted changes in their service areas, they may find themselves in a situation in which they cannot meet the needs of their P.N.W. customers and their "20 year firm contracts" to the P.S.W. In this situation the servicing utitity may be forced to build new generating facilities, or import more expensive power to meet their commitments. In either option, the P.N.W. and its consumers would lose.

If the P.S.W. needs the P.N.W. power as badly as they indicate they do, they would be willing to sign shorter "firm power" contracts, at a price as beneficial to the P.N.W. as longer firm contracts.

I suggest a shorter maximum length for contracts on firm power sales destined for outside the P.N.W., to 10 years. Although this may still be too long, 10 years would be sufficient for future planning, without putting the P.N.W. at such an extended risk.

The longer the contracts, the greater the benefits to the Pacific South West and the greater the risk of economic disaster to the Pacific North West; our home and livelihood.

Thank you for this opportunity to respond to the IDU-EIS.

Respectfully,

Bill J. Graham
member- Oregon review committee

NORTHWEST PULP&PAPER

January 14, 1987

Ms. Donna Geiger
BPA Public Involvement Manager
P. O. Box 12999
Portland, OR 97212

Re: BPA Long Term Intertie Access Policy

Dear Ms. Geiger:

The Northwest Pulp and Paper Association represents the region's major pulp and paper producers. The industry has an annual electric load of over 1200 MW, purchased from public and private utilities as well as directly from BPA. The industry also has the potential to generate substantial amounts of electrical power through cogeneration.

Multi-Party Benefits

NWPPA supports BPA's objectives in developing the LTIAP: 1) to enhance BPA's power marketing program; 2) to provide intertie access to regional utilities to market firm and nonfirm surplus power; and 3) to provide certainty and stability in BPA and utility power marketing efforts to the Southwest. Clearly, the LTIAP should be to foster long term sales of surplus firm power by both BPA and Pacific Northwest utilities. Long term firm sales of regional surplus power will maximize utility and BPA revenues, decrease the regional power surplus and promote rate stability over the long term.

NWPPA supports several specific elements of the proposed LTIAP which it feels will work to achieve the above objectives:

1. Reserved intertie capacity for existing and potential new sales of BPA surplus power;

2. Assured delivery for utilities' existing and new firm power sales contracts; and

3. Assured access for utilities' FD supported sales.

NORTHWEST PULP & PAPER ASSOCIATION 1300 114TH AVENUE SOUTHEAST SUITE 110 BELLEVUE, WASHINGTON 98004 (206) 455-1323

Overall, these provisions serve to promote long term firm surplus sales arrangements and strike a balance between BPA and Pacific Northwest utilities' power marketing needs.

Access for Cogeneration Resources

The proposed LTIAP is ambiguous with regard to intertie access for new resources, including cogeneration, developed within BPA's own service territory. The policy does include a provision under the definition of "Qualified Pacific Northwest Resources" that would allow new cogeneration resources developed in private utility service territory to be used to fulfill a firm power sales contract granted assured delivery, as approved by the Administrator.

It is our understanding that BPA intends to develop a policy interpretation regarding its responsibilities towards new resource development and particularly PURPA resources after finalization of the LTIAP.

We believe a better approach is for BPA to state upfront on the LTIAP that intertie access will be granted to new regional cogeneration resources that would otherwise result in a loss of firm load. NWPPA believes that with the prospect for intertie access for cogeneration foreclosed, companies through lack of a market, will opt to serve their own needs and displace firm load.

The prospect that new cogeneration resources will be developed during the life of the LTIAP is real. Cogeneration potential in the pulp and paper industry alone has been estimated at 500 MW. A 1984 PNUCC report on Northwest cogeneration potential based on extremely conservative assumptions concluded that over 400 MW of cogeneration potential exists regionwide.

Sales of cogenerated power over the intertie would be advantageous to all parties. Longview Fibre Company's contract involving Cowlitz PUD (Cowlitz), and the Western Area Power Administration (WAPA), provides a good illustration.

Longview Fibre's take-or-pay contract provides for sales of its cogenerated power to WAPA from November 1, 1983 through the year 2004. This contract assures BPA a 45 MWa sale of firm power through Cowlitz to Longview Fibre. BPA receives revenues from demand and energy charges to Cowlitz, as well as wheeling charges. Cowlitz gains revenue from sales to Longview. WAPA receives power at a reasonable cost, and Longview Fibre makes

Ms. Donna Geiger
January 14, 1987

an acceptable margin of profit on the sale. The end result is a steady flow of dollars into the region as a result of the sale. Without the sale, BPA would lose a stable, firm load and revenues and BPA's power surplus would increase.

It is our understanding that Longview Fibre's power sale contract with WAPA is guaranteed assured delivery under the proposed LTIAP as an existing firm power contract.

Again, NWPPA urges BPA to include in the LTIAP, intertie access for new cogeneration resources that would otherwise displace firm load.

Thank you for the opportunity to comment.

Sincerely,

Terry Boner

Terry Boner
Energy/Environmental Analyst

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515

January 13, 1987

Honorable James J. Jura
Administrator
Bonneville Power Administration
P. O. Box 3621
Portland, Oregon 97208

Dear Mr. Jura:

California utilities - both investor-owned and municipally-owned -- have told me of their objections to Bonneville Power Administration's (BPA's) proposed Long Term Intertie Access Policy ("Policy"). I am writing to express similar concerns and advise you of my intent to schedule oversight hearings on the Policy early in the 100th Congress.

At a time when the Administration and Federal and State regulatory agencies are touting the benefits of competition, BPA is contemplating implementation of an anti-competitive, anti-California policy designed to control the market for bulk power sales from the Pacific Northwest and Canada to California. This Policy could have the impact of raising energy costs to California ratepayers by tens of millions of dollars each year. BPA's proposal could also eliminate California as a stable market for BPA energy, and jeopardize BPA's ability to repay U.S. taxpayers the billions of dollars spent on Northwest power resources.

As soon as the oversight hearing is scheduled, I will advise your office. I look forward to hearing from you.

Sincerely yours,

George Miller

GEORGE MILLER, Chairman
Subcommittee on Water and
Power Resources

Assign: Evans, Scott
cc: JJJ, RER, SGH, JR, (AC),
Geiger, Spigal, Ailshie,
Sienkiewicz, Klinger, Tupper

January 14, 1987

Hon. James Jura
Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon

Dear Mr. Jura:

I am personally transmitting to you the enclosed comments of the California Energy Commission on Bonneville's proposed Long Term Intertie Access Policy (LTIAP) in order to underscore the importance to California of your decision regarding the formulation and adoption of this policy. You are no doubt aware that all California parties oppose the policy in its current form; in these comments we have tried to point out not only the serious legal issues which we believe are raised by the proposed LTIAP, but also the practical reasons why you, as the head of the Bonneville Power Administration, should very carefully consider whether this policy serves your long-term interest in a stable and adequate revenue stream.

In particular, I commend to your attention the first seven pages of the comments (Section IA) which attempt to explain how the near-term policy has already affected California energy policy in ways that may injure Bonneville's long-term interests and how the long-term policy could be reformulated to avoid the continued erosion of your market in California. I hope you will also review the remainder of Section I, dealing with issues relating to the limits of Bonneville's legal authority to control the market through its intertie access policy. I believe we have persuasively made the case that the LADWP opinion of the Ninth Circuit Court of Appeals is not the last word in this area, and that, in any event, the proposed LTIAP violates the law as stated in that opinion.

Thank you for the opportunity to comment on this very important policy.

Sincerely,

CHARLES R. IMBRECHT
Chairman

BEFORE THE
BONNEVILLE POWER ADMINISTRATION
DEPARTMENT OF ENERGY

In the Matter of:	)	
	)	
Adoption of Long Term Intertie Access Policy and Related Draft Environmental Impact Statement	)	COMMENTS OF THE CALIFORNIA ENERGY COMMISSION

The California Energy Commission (CEC) submits the following comments on the Bonneville Power Administration's (BPA) proposed Long-Term Intertie Access Policy (LTIAP) and related Draft Environmental Impact Statement (DEIS). In Section I of the comments, the CEC recommends that BPA not adopt the LTIAP as proposed because (1) it will inevitably continue the erosion of support in California for energy planning that encourages the use of surplus energy from the Pacific Northwest, (2) it fails to provide transmission access in a fair, non-discriminatory, and competitive manner as required by law, (3) it is inconsistent with antitrust principles and contains no adequate justification for its impairment of competition in the bulk power market, (4) it violates section 9(d) of the Regional Power Act of 1980 by discriminating against new resources, and (5) it does not provide sufficiently clear guidelines for transmission access. In Section II of the comments we contend that the DEIS is seriously inadequate and we therefore recommend changes and additions to the analyses provided in that document. Finally, in Section III we point out that there has not been an adequate opportunity for

parties to probe the basis for this policy in order to provide meaningful comment upon its strengths and weaknesses.

I

BPA SHOULD NOT ADOPT THE PROPOSED LTIAP

For both legal and policy reasons, BPA should seriously reconsider its apparent intent to implement a long term intertie access policy that has many of the same principal features of BPA's near term access policy. This section demonstrates that BPA's adoption of such a policy would simultaneously exceed its authority and defeat its long term interest in a stable and adequate revenue stream.

A. The Proposed LTIAP will Probably Result in a Long-Run Decrease in BPA and Pacific Northwest Revenues from Sales of Surplus Energy to California.

The most fundamental problem with the LTIAP is that, like the NTIAP, it gives a very negative message to the Pacific Northwest's California market. Both policies signal that the days of low cost energy from the Pacific Northwest are gone. That may well be the purpose as well as the effect of the policies. Whether that signal was intended or not, however, we urge BPA to consider carefully whether the short-term increases in its own revenues achieved by the NTIAP are worth the probable long-term damage to its principal source of revenues for surplus energy. Any price times zero quantity yields zero revenues.

Before the adoption of the NTIAP, there were times of the year (when there was not enough surplus Northwest energy to fill the intertie--now referred to in the LTIAP as condition 3) when the Northwest enjoyed a natural "seller's market" and its utilities could bargain for energy prices approaching the decremental cost of California alternative sources of generation. At other times of the year (when there was more than enough surplus Northwest energy to fill the intertie--referred to in the LTIAP as conditions 1 and 2), California enjoyed a natural "buyers market" that forced prices, through competition among Northwest sellers, to low levels.[1] Under these circumstances, for many years California utilities and regulatory agencies enthusiastically embraced the Northwest market and viewed it as a resource which California should certainly plan to use to the maximum extent possible for the benefit of California ratepayers.

Under these "pre-IAP" conditions, the Pacific Northwest also received substantial benefits that helped keep electricity rates in the Northwest among the lowest in the nation and far lower than those experienced in California. Unfortunately, this mutually beneficial balance was upset in 1984 when BPA became convinced that the Northwest could reap even greater rewards from the California market. BPA therefore adopted an intertie access

[1] Of course even this natural "buyers market" has been substantially affected to the benefit of the Northwest by the Exportable Energy Agreement which limited competition during spill conditions. The affect of the Exportable Energy Agreement was to prevent competition from sending the price lower than BPA's spill rate.

policy that prevents competition between and among all Pacific Northwest surplus energy sellers during those times when that competition would naturally create a "buyer's market" (conditions 1 and 2).

This action created a year around "seller's market," not only for BPA, but also for every other Pacific Northwest seller of surplus energy. As BPA's Record of Decision for the interim NTIAP explains (at page 65): "buyers in California [under the NTIAP] face Pacific Northwest sellers who are unable to compete with each other..." thereby permitting those sellers to charge very close to the decremental cost of alternative generation in California. This means that where the "Pre-IAP" world awarded more of the benefits of transactions to one region some of the time and to another region at other times of the year, under the IAP the Northwest keeps nearly all of the benefits all of the time.[2]

BPA and other Pacific Northwest parties who favored the adoption of this policy may have assumed that California would have little choice but to go along with it. This seriously miscalculated the thinking of energy planners both within California utilities and California's regulatory agencies with

[2] As noted above, the price for this action by the Pacific Northwest is prospective serious decline in revenue from California. This adverse result could be avoided if the Northwest was willing to divide the benefits of transactions equally between the parties. Although BPA used the concept of "equal sharing of benefits" in defending its NTIAP (contending that without the IAP, more than half the benefits were flowing to California), BPA has not provided any response to serious California proposals to find a way to share the benefits equally.

respect to the long-term value of continued transactions between the regions. The CEC, for example, in mid-1985 eliminated the once preferred Pacific Northwest nonfirm energy from its planning assumptions in the Fifth Electricity Report,[3] and the California Public Utilities Commission took a similar stance in its OIR-2 proceedings relating to future long term standard offers for California qualifying facilities. These decisions moved California away from its current reliance on Pacific Northwest surplus energy and towards greater reliance on the energy output of indigenous qualifying facilities and utilities.

The NTIAP greatly strengthened the arguments of qualifying facilities in California who seek to replace the utility oil and gas-fired generators in California's major utility systems. These facilities provide the flexibility that now allows California utilities to substitute Pacific Northwest energy on a "spot market" basis when it is cheaper to do so. The QFs argue, reasonably, that since the IAP reduces the benefits to California to very low levels, ratepayers in California should be indifferent whether our utilities get their energy from the Northwest or from QFs. Because of the IAP, QFs can persuasively argue that their facilities should be considered economically

[3] In the Sixth Electricity Report, a modest amount of nonfirm energy has been tentatively reintroduced, based on BPA assurances that a long term price cap on nonfirm energy is being developed. A considerably larger amount could have been recognized but for the IAP, and even the amount now recognized may be removed if some reasonable assurance of substantial future benefits to California ratepayers is not perfected. Indeed, the reintroduction of even the modest 13,150 GWh was questioned by the CPUC and remains controversial in California.

competitive if they can provide the energy at just under the operating cost of the utility gas-fired generators.[4]

The principal justification BPA has offered for the IAP is that it was and is necessary to protect federal revenues and the ability of BPA to repay the federal treasury for the investments it has made in federal Northwest energy projects. The CEC respectfully suggests that BPA has not adequately shown that it could not collect enough revenue to allow it to meet its federal treasury obligations without impairing competition in the bulk power market. Moreover, even if one assumed that BPA did need to protect <u>itself</u> from competition to some extent in order to be able to repay the treasury, that would not justify a policy that also eliminates competition between all <u>other</u> Pacific Northwest sellers of surplus energy. By adopting an overbroad Access Policy that has an unnecessarily adverse effect on California ratepayers, BPA has set in motion the long term diminution of its own opportunities to collect revenues from California sales by

[4] Parties in the Pacific Northwest often suggest that the replacement of the oil and gas system with QFs is not a real possibility because Pacific Northwest nonfirm energy prices have been historically so much lower than QF energy prices. These parties ignore (1) their own arguments that BPA's nonfirm prices to California should rise substantially in the future, (2) the fact that QFs provide California long-term capacity benefits that BPA cannot, by law, provide, (3) that the QFs, as an indigenous resource, provide the California economy other benefits besides power (e.g. jobs), and (4) the simple fact that parties will generally prefer to deal with someone they feel can be trusted, even if the price is a bit higher, than with someone who they feel has demonstrated a proclivity to take unfair advantage of them. Spot price is clearly an important factor, but in the present market other factors may outweigh an attractive spot price, particularly when it appears that in the long-term, that spot price could be much higher.

encouraging substitution of indigenous qualifying facilities for the flexible utility oil and gas-fired facilities that have historically enabled BPA to have a place in the California market.

It is probably too late to avoid all of the damage to BPA's California market brought about by the NTIAP. During the period of that policy's implementation many hundreds of megawatts of QF energy have been irrevocably licensed for introduction into the California utility system, thus exacerbating minimum load problems that are increasingly requiring California utilities to reject economy energy.[5] It is not too late, however, to arrest this erosion of BPA's long-term revenue prospects by substantially modifying the LTIAP to remove unnecessary and unjustified adverse effects on competition. A LTIAP that provided for only limited interference with competition in the bulk power market and carefully justified the extent of that interference by showing that it was truly necessary to protect BPA's ability to make its treasury payments could not fail to have a substantial impact on energy planning in California and on future decisions whether and under what conditions to permit additional QFs to be constructed. To be effective in preserving

[5] Included are the P.G.& E. Geysers 21 Facility (140 MW), the CCPA Geysers Facility (130 MW), the Gilroy Foods Cogeneration Facility (115 MW), the AES Placeritas Cogeneration Facility (98 MW), the IBM Cogeneration Facility (65 MW), the Chevron El Segundo Refinery Cogeneration Facility (76 MW), the Champlin TEOR Cogeneration Facility (79 MW), the ARCO Watson Cogeneration Facility (365 MW), and the Sycamore TEOR Cogeneration Facility (300 MW).

the Northwest's California market in the long-term, however, the LTIAP would have to make it clear that the only interference with competition that BPA intends to impose is that which it reasonably determines to be necessary to protect the federal treasury.[6]

B. The Proposed LTIAP Violates the BPA's Statutory Obligations To Provide Fair and Non-Discriminatory Transmission Access As A Carrier to All Utilities and also Violates its Obligation as a Federal Agency to Conform its Policies to the Pro-Competitive Principles of the Antitrust Laws to the Maximum Extent Feasible.

In the previous section we have outlined why it is in BPA's long-term interest to modify the LTIAP substantially, removing unnecessarily punitive restrictions on competition that damage the interests of California ratepayers. In this section we will present the reasons why BPA is required to so modify the policy by the statutes that provide BPA's authority to administer the intertie and by relevant case law.

BPA derives its authority to administer the intertie from two statutes. The first, enacted in 1964, is the Regional Preference Act, 16 U.S.C. § 837 et seq which provides in pertinent part:

> "Any capacity in Federal transmission lines connecting, either by themselves or with non-federal lines, a generating plant in the Pacific Northwest or Canada with the other area or with any other area outside the Pacific Northwest, which is not required for the

[6] Such determinations should be made only in section 7(i) rate proceedings in which parties have a reasonable opportunity to test the assumptions on which this conclusion would be drawn.

transmission of Federal energy or [Canadian treaty energy], shall be made available as a carrier for the transmission of other electric energy between such areas." (emphasis added). 16 U.S.C. § 837e.

The second statute, enacted ten years later in 1974, is the Columbia River Transmission Systems Act, 16 U.S.C. § 838 et seq which provides in pertinent part:

> "The Administrator shall make available to all utilities on a fair and nondiscriminatory basis any capacity in the federal transmission system which he determines to be in excess of the capacity required to transmit electric power generated or acquired by the United States."

Taken together, these statutes require BPA (1) to determine what capacity is necessary to transmit federal power and (2) to make any additional capacity available to all utilities without discrimination between and among them.[7]

The proposed LTIAP, like the NTIAP, violates this clear statutory requirement by allocating transmission access only to BPA and Pacific Northwest sellers of surplus energy during Conditions 1 and 2. BPA therefore discriminates both against Canadian and other extra-regional utilities with energy to sell and against California purchasing utilities.[8] The policy is

[7] The statutes provide no express or implied authority for BPA to regulate the bulk power market and eliminate competition for the purpose of forcing California ratepayers to help keep Northwest electricity rates low. Nor may BPA reserve capacity on the intertie when it does not have power that needs to be transmitted. See section I.D. infra.

[8] The access policy does not provide the same transmission access to BC Hydro, for example, as is available to non-federal Pacific Northwest utilities. Notwithstanding the four principles included in the agreement executed June 12, 1986, between BPA and BC Hydro concerning BC Hydro's transmission access (set forth in the BPA's "Proposed Long-Term Intertie Access Policy Issues"

unfair in the extreme to purchasing utilities by eliminating price competition among sellers as described in section I above, and by eliminating participants from the market, in particular Canadian utilities.[9] The policy violates the 1964 Act by

paper at page 5), such discriminatory provisions are simply illegal. Moreover, the four principles are all issues which are common to BC Hydro and all other prospective sellers. Thus, the four principles would not justify such discriminatory policies even if the BPA had discretion to adopt them.

[9] The CEC is, of course, cognizant of the Ninth Circuit decision in Department of Water and Power of the City of Los Angeles v. BPA (9th Cir. 1985) 759 F.2d 684 which held that BPA was authorized to discriminate against Canadian utilities. We respectfully suggest that both BPA and the court are in error in urging that the clear language of the 1964 and 1974 statutes may be overcome by legislative history, particularly given that the critical passage on this point reads:

> "The Secretary may enter into agreements for the wheeling of energy generated in Canada, but such energy stands on the same basis as any other non-federal energy. It does not have the priority granted to Federal energy and Canada's entitlement to downstream power benefits under the proposed treaty." H.R. Rep. No. 590, 88th Cong., 2d Sess., reprinted in 1964 U.S. Cong. & Ad. News 3342, at 3350 (emphasis added).

The plain meaning of this language is simply that Canadian treaty power is distinguished from Canadian non-treaty power because the former enjoys the priority of federal energy while the latter does not. Nothing in this legislative history fairly establishes that Canadian non-treaty power was intended to be handled differently from other non-federal energy or that discrimination against it is authorized. BPA seems to read the language to mean that Canadian non-treaty power "stands on the same basis as any other non-federal energy" only if BPA decides to transmit it. Such a reading cannot be squared with the mandatory language of the statute itself which does not say that excess capacity between Canada and California may be made available, but shall be made available. The fact that the above-quoted legislative history, which does not have the force of law, uses the permissive term "may" in describing the Secretary's duties with respect to wheeling agreements with Canada is irrelevant in the face of the clear statutory direction. Moreover, this permissive language could easily have meant only that it was unclear to Congress whether any excess capacity (over that necessary to

providing excess transmission, not "as a carrier," as the statute requires, but rather as a regulator of the market, a role which Congress has not granted to BPA.

The IDU DEIS indicates that one of BPA's purposes in adopting the LTIAP is to "achieve consistency with other National policies." (IDU DEIS at S-1). Some of the most important National policies Congress has ever set forth are the pro-competitive policies developed in the antitrust laws which encourage competition as the means of achieving an efficient economy and a fair marketplace.[10] Yet the LTIAP, like the NTIAP before it, intentionally impairs competition in the bulk power market. The Ninth Circuit in the LADWP opinion explicitly recognized that "[T]he effect of Condition 2 is to reduce

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carry federal and Canadian treaty power) would exist for nondiscriminatory allocation to all utilities including Canada. Read this way, there is no inconsistency between the legislative history and the plain meaning of the statute.

[10] The significance of the national policy set forth in the antitrust laws is described eloquently in the following words of former Supreme Court Justice Hugo Black:

> "[The antitrust laws were] designed to be a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade. [They rest] on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same time providing an environment conducive to the preservation of our democratic political and social institutions." Northern Pacific Railway Co. v. United States (1958) 356 U.S. 1, 4, 78 S.Ct. 514, 517, 2 L.Ed.2d 545.

Thus the antitrust laws have been described as the "Magna Charta of free enterprise." United States v. Topco Associates, Inc. (1972) 405 U.S. 596, 610, 92 S.Ct. 1126, 1135, 31 L.Ed.2d 515.

competition among Northwest utilities both for Intertie capacity and for California purchasers and to equalize the prices at which Northwest power can be sold." 759 F.2d at 690.[11] Therefore, the LTIAP certainly does not achieve consistency with National antitrust policy.

Not only does the LTIAP fail to achieve consistency with important national policy--it also fails to meet BPA's obligation as a federal agency to conform its policies to the antitrust laws to the maximum extent feasible. See Gulf States Utilities Company v. Federal Power Commission (1973) 411 U.S. 747, 93 S.Ct. 1870; Northern Natural Gas Company v. Federal Power Commission (D.C. Cir. 1968) 399 F.2d 953; City of Huntingburg v. Federal Power Commission (D.C. Cir. 1974) 498 F.2d 778; Latin America/Pacific Coast Steamship Conf. v. Federal Maritime Comm. (D.C. Cir. 1972) 465 F.2d 542, cert. denied, 409 U.S. 967 (1972); Maryland People's Counsel v. FERC (D.C. Cir. 1985) 761 F.2d 780.[12]

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[11] The Ninth Circuit did not find that this was consistent with antitrust principles. It simply decided that LADWP was asking the court to enjoin this apparent violation of antitrust law and that it could not do that because BPA, as a federal agency, is not a "person" within the meaning of the antitrust law. See 759 F.2d at 693, n. 12.

[12] These cases were neither cited to nor analyzed by the Ninth Circuit in the LADWP case. They form one of the principal bases for the CEC's independent challenge to the NTIAP. See California Energy Resources Conservation and Development Commission v. Bonneville Power Administration, et al.; United States Court of Appeals for the Ninth Circuit, Nos. 84-7836, 84-7838, 85-7430, and 85-7470. For additional discussion of these points, BPA should refer to the briefs and motion papers filed by the CEC in this litigation. The CEC hereby incorporates by reference these documents as comments to the BPA on the LTIAP.

These cases establish that the principles enunciated in the antitrust laws are of such importance that even though federal agencies are not "subject to the antitrust laws" they nonetheless have a duty to bring their policies into conformance with those laws wherever possible. This means that while federal agencies may violate the antitrust laws if the achievement of other clearly stated Congressional objectives requires it, those agencies have the same obligation the courts labor under to harmonize conflicting Congressional enactments to the maximum extent feasible. Therefore, where an agency proposes a policy that impairs competition, it must establish that such impairment is both necessary and appropriate. It is necessary only if a clear conflict between a Congressional objective (e.g. BPA's ability to repay the federal treasury) and the pro-competitive policies embodied in the antitrust laws is established. Where such a conflict is established, the proposed impairment of competition is appropriate only if it is the smallest intrusion possible, consistent with the need to accomplish the conflicting objective.[13]

BPA has not yet established through any credible evidence

[13] In making these determinations, federal agencies do not enjoy the same latitude the courts normally confer upon their policy choices. Instead, the courts have indicated they will "closely scrutinize" such agency decisions to ensure that the will of Congress is properly implemented. Gulf States Utilities Company v. Federal Power Commission (1973) 411 U.S. 747, 763, 93 S.Ct. 1870.

that it could not be a self-financing federal power marketing agency without disrupting competition through its LTIAP.[14] In order to establish that, it would be necessary for BPA to show that it would be impossible for it to recover enough revenues through adjustments in Pacific Northwest rates to repay the federal treasury. Moreover, even if BPA could establish that it must prevent competition with some of its own surplus energy sales in order to achieve an adequate level of federal revenues, it has not presented any analysis of what percentage of its sales require such protection from competition in order to achieve legitimate federal repayment goals. Indeed, in response to a Freedom of Information Act request by the CEC dated December 15, 1986, BPA has admitted that it has not even performed the analysis that would be necessary to determine this fact.[15] Nor has BPA offered any explanation whatsoever for how the elimination of competition among non-federal Pacific Northwest sellers of surplus energy is necessary or appropriate to the achievement of federal revenue requirements.

In short, the LTIAP is inconsistent with the statutes providing BPA its authority to administer the intertie, it is inconsistent with the important National policies expressed in

[14] As set forth in Section III, below, the procedure adopted for the establishment of the LTIAP not only provides no evidentiary basis for the policy, but also seems designed to frustrate the efforts of parties who wish to probe the critical assumptions BPA has made by preventing any on record dialogue between commenters and BPA personnel.

[15] The Freedom of Information request and BPA's response are incorporated herein by reference and attached.

the antitrust laws, it lacks an adequate justification for its intentional impairment of competition, and it contains no demonstration that it represents the smallest intrusion on competition that is possible, consistent with the need to achieve some other clearly expressed Congressional objective. The CEC respectfully suggests that the LTIAP must be redesigned, both for the policy reasons stated above and also to permit BPA to provide an adequate legal justification for its policy.

C. BPA's Illegal Restraint of Competition Among Pacific Northwest Utilities Also Leads to the Need for BPA to Violate Section 9(d) of the Regional Act By Discriminating Against New Resources.

With regard to new resources, the LTIAP substantially continues the policy of the NTIAP, confining access to the intertie to power and energy generated by resources in existence as of September 7, 1984. More specifically, new regional resources of scheduling utilities are only entitled to access: (1) if the Administrator determines that the new regional resource is necessary to fulfill a firm power sales contract that has been granted assured delivery based on existing Pacific Northwest resources, which resources have since been removed from operation or have become necessary to serve the scheduling utility's regional load; or (2) after the Administrator has determined that the capacity of the Pacific Intertie is rated at

approximately 7,900 megawatts.[16] (LTIAP, Section A(14).) Moreover, Section C(3)(c)(1) prohibits access which would enable "the construction or operation of a new hydroelectric plant that will have a substantial adverse impact on fish or wildlife resources within the Columbia River Basin."

These provisions plainly contradict Section 9(d) of the Northwest Power Act which provides in pertinent part:

> "The administrator shall provide transmission access . . . and shall not discriminate against any utility or group thereof on the basis of independent development of [any new] resource in providing such service." (16 U.S.C. § 839f(d).)

The CEC recognizes the need, from an environmental perspective, to control the development of new resources that may damage the environment, the construction of which might be motivated by the opportunity to obtain a larger intertie share.[17] But the economic incentive for this sort of potentially adverse development grows directly out of BPA's unjustified elimination of competition on the intertie. If BPA modified the policy to permit competition among nonfederal sellers, it would not need to resort to provisions that plainly violate section 9(d) of the Regional Act. For this additional reason, we urge BPA to revise the LTIAP to restore a maximum level of competition consistent

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[16] To the extent that the discrimination against new resources is indeed based on the need to protect the environment, it is unclear how the expansion of the intertie properly relates to this aspect of the LTIAP. Why is BPA willing to permit the alleged environmental damage to occur simply because the intertie is expanded to 7900 MW?

[17] We do not condone the concurrent effect of reducing competition for the California market.

with its federal treasury repayment obligations.

D. The LTIAP Fails to Set Clear Guidelines for Transmission Access and this Vagueness in the Policy Disguises Apparent Violations of BPA's Statutory Responsibilities.

In several important areas the LTIAP and the issue paper fail to provide access guidelines sufficiently clear to allow rational decisions in the marketplace. Perhaps the most important example pertains to seasonal and capacity/energy exchanges. The issue paper describes the LTIAP policy on such exchanges as one that

> "generally will not provide assured delivery for exchange contracts of scheduling utilities until the federal system is in load resource balance. At that time BPA will provide assured delivery for exchange contracts if the transactions do not conflict with BPA's ability to: (1) recover revenues, and (2) efficiently operate the Columbia River Power System." Issue paper, page 2.

The issue paper goes on to state that the use of BPA's intertie ownership for such exchanges "can economically harm BPA" and that lack of such exchanges may cause California utilities to "suffer harm." (Issue paper, p. 3.) The issue paper then suggests that BPA may seek to negotiate "a mutually beneficial arrangement" allowing such exchanges.

California utilities who might find a seasonal exchange or a capacity/energy exchange with a Pacific Northwest party desirable as part of their resource plan face a virtually impossible task in determining what BPA means by these statements. Such

utilities cannot know what BPA means by "generally"; they cannot predict when BPA will determine that the federal system is in load resource balance; they cannot know whether BPA will determine that such exchanges, once negotiated, conflict with BPA's ability to recover revenues and to efficiently operate the Federal Columbia River Power System; and, finally, they cannot know what "mutually beneficial arrangement" BPA may find appropriate to allow these exchanges. In essence, it appears that BPA is simply prohibiting these transactions unless California utilities agree to share the benefits of them with BPA.

Additionally, neither the issue paper nor the LTIAP describe how such exchanges "can economically harm BPA." The simple assertion of economic harm does not allow interested parties to determine the nature of the harm or whether it exists at all. California parties are left to speculate what "harm" BPA is trying to avoid by making it difficult to obtain assured delivery for the purpose of serving seasonal and capacity/energy exchanges. One possibility is that BPA is speculating that providing assured delivery for these transactions may interfere with BPA's opportunities to market nonfirm energy when it is available.[18] Another possibility is that BPA wishes to sell its firm surplus and fears that permitting other Pacific Northwest

[18] If this is BPA's rationale for denying assured delivery for exchanges, it is unclear how BPA's anticipated return to load resource balance in the future would mitigate this problem and make it possible for BPA to permit assured delivery for these transactions in the future.

parties to negotiate exchanges, which might represent cheaper solutions to California's capacity needs, will interfere with BPA's ability to sell this firm surplus as a firm (high priced) product. The LTIAP and the issue paper do not clearly state which of these (or other) "harms" BPA is addressing in leaving the policy vague as to whether assured delivery will be provided for exchanges.

This is very important because the harm BPA seeks to avoid must provide the measure of BPA's authority to prohibit otherwise lawful and beneficial use of the intertie. BPA is authorized by the 1964 and 1974 statutes, described in Section II above, to determine what portion of the intertie is necessary to transmit federal energy, and, if the Ninth Circuit decision in the LADWP case is correct, to reserve that portion of the intertie for its own use.[19] BPA is not authorized to prohibit use of excess capacity (that which is beyond what it needs to transmit federal energy) simply because such use might satisfy the needs of a customer to whom BPA would like to sell surplus power.

The LADWP opinion explains BPA's duty to make excess capacity available to others as follows:

> "Transmission lines used for BPA energy in the Northwest are to be made available to other users if not needed by BPA. 16 U.S.C. § 837e." (emphasis added)

[19] The California utilities and regulatory commissions continue to believe that Congress intended that this reservation would be limited to that federal energy which BPA could reasonably expect to be able to sell in a competitive market. We recognize, however, that BPA reads the LADWP opinion to grant unrestricted power to reserve intertie capacity for BPA sales whether BPA's price is competitive or not.

759 F.2d at 692.

Note that the court does not say that transmission capacity can be withheld because BPA would like to prevent another utility from competing for a potential BPA customer, but rather only to prevent the use of intertie capacity that BPA needs to use for its own power. The proposed LTIAP reserves for BPA all of the capacity it needs to transmit all surplus firm power.[20] Going further and prohibiting certain types of transactions by others, even when supported by excess capacity, seems to violate the LADWP court's sense of the limits of BPA authority.

The LADWP court follows the above quoted statement with an examination of the legislative history of the 1964 Act:

> "The legislative history of the Act explains that
> In determining the existence of capacity excess to the needs of the Government, Federal needs reasonably foreseeable may be included, but the Secretary may not decline to enter into [agreements to transmit other utilities' power] merely because he may have energy available for sale to serve the same load.
> H.R. Rep. No. 590; 1964 U.S. Code Cong. & Ad. News at 3350." Id.

Giving this passage the most favorable interpretation possible to

[20] The Commission questions whether even this reservation is proper given that BPA has not provided an evidentiary basis for concluding that it needs to shut out competition with BPA for the ability to sell this energy and given that the amount of firm energy BPA will have is speculative. Nevertheless, assuming that BPA does have authority to reserve intertie space for a reasonable amount of firm energy that it expects to have available, it clearly does not have authority to reserve the entire intertie in order to promote its marketing of that firm energy.

BPA,[21] the court then states:

> "BPA is permitted, therefore, to reserve sufficient Intertie capacity not only for its current needs but also for its 'foreseeable' future needs, so long as the agency does not compete with other utilities on the mere speculation that it 'may have energy available' sometime in the future to sell to the same customer." (emphasis added). 759 F.2d at 692.

Since BPA has not precisely defined what "harm" it would suffer from permitting assured delivery for exchange transactions, it appears that BPA is attempting to reserve capacity "on the mere speculation that it 'may have energy available' sometime in the future," and is doing so for the impermissible purpose of preventing California utilities from satisfying their needs for capacity through less expensive means than purchasing BPA's surplus firm power.[22] BPA must, at a minimum, define the "harm" to be avoided so that utilities seeking assured delivery can attempt to address BPA's legitimate concerns (if there are any), and so that the courts may review the policy with an understanding of what motivated the apparent prohibition of exchange agreements for the next decade or longer.

Another important matter left undefined by the LTIAP and related documents is the criteria and facts which will be relied upon by the BPA to determine the revenues necessary from BPA energy sales and transmission charges in order to meet BPA's obligations to the federal treasury. Despite repeated references to the LADWP decision and to BPA's obligation to discharge its fiscal obligations generally, the DEIS, the issue paper and the LTIAP provide little, if any, guidance as to the precise nature of that obligation. Nor is there any explicit discussion of how this obligation is to be allocated among BPA's many alternative methods of raising revenue. Given that BPA justifies many of the anti-competitive aspects of the LTIAP on the need to meet its fiscal obligations, its failure to analyze explicitly the obligation and options for meeting it is a fatal deficiency in the DEIS and the LTIAP record generally. Nowhere in the DEIS is the federal treasury obligation quantified. Nor does the DEIS

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[21] LADWP had argued that this language showed that Congress only intended that BPA could reserve capacity on the line if it was successful in marketing its energy. LADWP emphasized the prohibition in this passage against declining to transmit other power "merely because [BPA] may have energy available for sale to serve the same load." The court gave BPA the benefit of the ambiguity in this passage of the legislative history by reading the prohibition to mean only that BPA could not refuse to share its transmission facilities merely because it could speculate that it might have power in the future rather than prohibiting BPA from reserving capacity for energy it actually has presently or would foreseeably have in the future. The CEC believes that if the court indeed intended to grant BPA unrestricted power to reserve capacity regardless of whether BPA has priced its energy competitively, the court erred in its reading of the legislative history. But even if this expansive reading of BPA's authority is correct, the court did not (and could not) permit BPA to reserve intertie capacity for which it had no power, simply to prevent others from competing for potentially scarce buyers.

[22] All of BPA's current load resource balance projections show that BPA has no more than 1500 MW of firm surplus power today and that this surplus should decline steadily over the next decade. The intertie has a minimum capacity of about 4000 MW, and with upgrades that are planned and under construction, BPA projects (in the DEIS) that it could rise to as high as 7900 MW. There is therefore no conceivable way that BPA could, within the next several years, require BPA the entire capacity of the intertie to transmit its firm power surplus. By refusing to transmit firm energy or capacity products of other utilities (such as exchanges), BPA is, in essence, reserving not only the capacity that it needs for its own firm energy, but also the capacity others need in order to compete with BPA in the market for firm energy products.

explicitly consider or model the impact of various access policy alternatives on the federal treasury.

II

THE DEIS IS INADEQUATE

Given the proposed life of the LTIAP and the enormous impact it will have on energy planning throughout the Western United States for the next generation, it is essential that BPA withhold action on the LTIAP until it has developed an environmental document that accurately and fairly assesses the impacts of this far-reaching policy. It is equally essential that interested parties have an opportunity to understand the document and provide meaningful input. The DEIS fails both these tests.

A. The DEIS Fails to Consider the Impacts of the LTIAP Separate From the Impacts of Additional Intertie Capacity.

As stated in the introduction to the DEIS, the document:

> "identifies and evaluates the potential environmental effects of two Bonneville Power Administration (BPA) actions, each with several alternatives. The first action is to participate in actions to increase the capacity of the Pacific Northwest/Pacific Southwest intertie (Intertie). The second is to develop a long-term policy for access to the BPA-controlled share of the Intertie." DEIS, page S-1. (emphasis added).

As this statement acknowledges, the two actions considered in the document are separate and independent. BPA can implement the access policy without expanding the Intertie and, conversely, it

can expand the Intertie without adopting an access policy. Regrettably, however, while the DEIS acknowledges this independence, it then considers the two projects as if they are one. Throughout the DEIS, the impacts of the access policy are inextricably intertwined with the impacts of constructing additional intertie capacity. As a result, it is impossible for the BPA or other interested parties to consider the impacts of either the access policy or the additional intertie capacity separately.

This is a crucial conceptual flaw in the DEIS because it defeats the central goal of the document to identify for the decision maker the environmental impacts of each action. It is quite conceivable--indeed, even likely--that the impacts of the projects together do not fairly represent the impacts of them independently. For example, the expansion of intertie capacity may make more northwest energy available to California, thereby reducing reliance upon fossil fuels by California utilities. On the other hand, the access policy will increase the price of that energy, thereby reducing sales to California utilities and offsetting the beneficial impact of the expanded intertie. These separate and independent impacts are lost when the two are considered together.

Additionally, by defining the projects as one, the document often seeks to obscure the absence of analysis of important impacts of each action. Indeed, it is fair to say that the DEIS generally tends to emphasize the impacts of expanded intertie

capacity while glossing over the impacts of the proposed intertie access policy. Nowhere is this more evident than in the woefully inadequate discussion of the effect of the actions on retail electric rates at Section 4.8-3. By far the most important impact of the LTIAP--indeed, its very purpose--is to increase the price paid by California utilities for surplus energy purchased from the Northwest. Yet the DEIS devotes only one short paragraph to the rate impacts of both actions. The impact of the LTIAP alone on California electric rates is not given even the most cursory attention. The remaining voluminous discussion of other often extraneous issues cannot hide the conspicuous absence of analysis of the rate impacts of a policy intended to affect electric rates.

B. The DEIS Fails to Consider Competitive Alternatives to the LTIAP.

In light of the comments and litigation spawned by the NTIAP, it is inconceivable that the BPA is unaware of the concerns of California parties that its access policies restrict competition among northwest sellers. Nevertheless, the LTIAP continues the BPA's policy of promoting monopoly pricing for its own sales as well as the sales of non-federal utilities in the Northwest. More remarkably, the DEIS contains almost no analysis of providing access based on consummated transactions, even though this is precisely how the BPA allocated transmission

access prior to the adoption of the NTIAP.[23] Even if the pro-competitive policies embodied in the antitrust laws do not compel the adoption of such alternative, as the CEC believes they do, the National Environmental Policy Act requires that the BPA consider in its DEIS the relative merit of the adoption of such an alternative.

Admittedly, the DEIS does consider allocation on a "first come, first served" sales-based priority under its "no action" alternative (Decision Package 1). However, this alternative is considered only together with no expansion of intertie capacity. (DEIS, pp. 2-10.) In its description of the environmental impacts of its no action alternative, the DEIS focuses on the impacts of failing to expand the intertie rather than the impacts of competitive pricing. (DEIS, pp. 2-17.)

It is self-evident that by far the largest impact of competitive pricing is on the economics of the power sales between the Northwest and Southwest. Remarkably, however, the DEIS devotes only four pages to the economic effects of all of the alternatives. Moreover, these four pages are devoted almost

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[23] The DEIS acknowledges that this was indeed the BPA's policy:

> "From an initial intertie operation in 1968, BPA allowed many entities to have access to the PNW portion of the intertie. Both regional and extra regional scheduling utilities, such as British Columbia Hydro and Power Authority (BC Hydro) were permitted to share BPA-owned intertie capacity, based on whose energy was purchased by Southwest buyers." DEIS, page 1-7.

exclusively to consideration of the economic effects of intertie upgrades rather than the access policies of the BPA. The section entitled "Retail Electric Rates" consists of a single conclusory paragraph which simultaneously argues that the benefits of "the intertie upgrade and intertie policy alternatives" (emphasis added) are likely to have substantial benefits and that the impacts on retail electric rates are difficult to predict annually and will not substantially impact overall average retail rate levels. Thus, while the DEIS purports to consider allocations based on sales, it in fact contains no meaningful analysis of the economic impacts of this competitive alternative.[24]

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[24] It is also unclear whether the DEIS uses consistent assumptions in performing the inadequate analysis that does exist of the more competitive "allocation by consummated sales" alternative to the IAP. If "pre-IAP" conditions were truly being made the base case so that adoption of the LTIAP could be meaningfully compared, one would expect that the analysis would begin with the background environment as it was before the introduction of the restriction on competition resulting from the NTIAP. Instead, it appears that no attempt was made to model pre-IAP conditions. In the description of the background environment, for example, 1984 California electricity rates are provided and projections of future rates are derived from California utility CFM VI filings. DEIS at 3-19. Yet the 1984 rates involve a year, almost half of which reflects the effect of the interim NTIAP. Additionally, the CFM VI filings were made well after the 1984 adoption of the interim NTIAP and would have reflected rates that take into account the Access Policy as an existing fact. Thus it may well be that BPA concludes that the long-term policy will have little effect on rates in California because it is really comparing the rates under the NTIAP with the likely rates under the LTIAP rather than performing a proper comparison of projected rates under pre-IAP conditions versus projected rates under the LTIAP. At a minimum, BPA must clarify the underlying assumptions in its discussion of the background environment.

The DEIS also ignores entirely another more competitive alternative. Although the DEIS analyzes the so-called "BPA first" option, this option allocates capacity remaining after BPA sales are complete on a pro rata rather than free market basis to other generating utilities within the Pacific Northwest. The DEIS ignores the alternative of a BPA-first option which allocates the remaining capacity to other sellers based on consummated transactions rather than on a pro rata basis.

This is a significant omission because, as BPA is aware, the LADWP decision addressed the need for BPA to protect its own sales but did not directly address BPA's authority to prevent competition among other sellers. Apart from questions of the BPA's authority as a matter of law, an access policy which promotes competition in the marketplace merits the BPA's attention and full consideration in the DEIS.

C. The DEIS Fails to Include Important Assumptions Made in Analyzing Environmental Impacts.

Many of the conclusions regarding environmental impacts set forth in the DEIS are based upon computer modeling. For example, BPA analyzed the effect of intertie capacity and policy decisions on intertie sales and generation levels in the Pacific Northwest and Canada using the BPA's system analysis model (SAM). It analyzed the operation of power resources in the Pacific Northwest using its least cost-mixed linear program model (LCMM). It used the marketing LP model to determine the effect of

intertie decisions on generation levels in the inland Southwest. Finally, to analyze generation levels in California the BPA contracted with the Independent Power Corporation which relied upon the ELFIN model developed by the Environmental Defense Fund.

All of these models are driven by assumptions embedded in the programs as well as assumptions provided as specific inputs to the programs. These assumptions drive conclusions emerging from the models. Accordingly, it is not possible to consider the accuracy of the conclusions set forth in the DEIS without access to the assumptions of the programs. Nevertheless, the DEIS does not fully disclose these assumptions. Thus, it is not possible for the CEC to comment upon the internal consistency of the models.

BPA is required to disclose all background studies and data upon which it based conclusions contained in the DEIS. In Environmental Defense Fund, Inc. v. Corps of Engineers, 325 F.2d 749 (E.D.Ark. 1971), the court described NEPA as "an environmental full disclosure law." Disclosure requires that the DEIS contain a description of the reasons for each conclusion and a reference to backup data. Minnesota Public Interest Research Group v. Butz, 401 F.Supp. 1276, 1310 (U.S.D.C. Minn. 1975). Disclosure in an EIS is necessary to allow the public to make independent judgments with respect to the conclusions contained in the EIS and to respond and make comments. In order to achieve that end, the methods relied upon in the DEIS must be described and the studies and data used in reaching conclusions must be

disclosed. Izaak Walton League of America v. Marsh, 655 F.2d 346, 368 (D.C. Cir. 1981). Computer models used must be described in sufficient detail to enable understanding and the data entered into the model must be disclosed so that the resulting conclusions may be independently judged. Disclosure in an EIS must be "sufficient to enable those who did not have a part in its compilation to understand and consider meaningfully the factors involved." Environmental Defense Fund, Inc. v. Corps of Engineers, 492 F.2d 1123, 1136 (5th Cir. 1974). Supporting studies and data must be available and accessible to the public. Life of the Land v. Brinegar, 485 F.2d 460, 468-9 (9th Cir. 1982); State of California v. Block, 690 F.2d 753, 764 (9th Cir. 1982). In addition to these cases, applicable regulations also require that methods be identified and scientific and other resources be referenced in an EIS in order to maintain the integrity of the discussions and analyses therein. 40 C.F.R. 1502.24.

These authorities make clear that the DEIS must disclose not only the conclusions of the models, but the inputs as well. The failure to fully disclose the assumptions underlying the impacts identified in the DEIS is, therefore, a critical omission that must be rectified before BPA certifies that the DEIS is complete. Moreover, once the assumptions have been provided, BPA must then give commenting parties a reasonable opportunity to comment on the draft report.

III

THE PROCEDURES USED BY THE BPA IN CONSIDERING THE LTIAP AND THE DEIS FAIL TO PROVIDE INTERESTED PARTIES A MEANINGFUL OPPORTUNITY TO COMMENT

Throughout these comments the CEC has pointed out omissions and ambiguities in the LTIAP itself as well as the issue paper and the DEIS. These problems are compounded by BPA's procedures for considering these documents which do not allow interested parties an adequate opportunity to obtain clarifications or information not set forth in the documents themselves. This is particularly important with respect to the assumptions used in the computer modeling discussed earlier.

The BPA's most important procedural error is that it has failed to follow standards applicable to ratemaking actions. As it has with respect to the NTIAP, the CEC asserts that adoption of the LTIAP is a ratemaking action subject to the statutory due process and administrative review provisions of the Northwest Power Act. Even if adoption of the LTIAP is not deemed a ratemaking action, however, BPA's hearing process has not provided even a minimally adequate opportunity to understand the basis for BPA's proposed actions in the LTIAP. A procedure that provides such understanding is essential so that parties seeking to have BPA modify the policy or reconsider its intention to adopt it may have a fair opportunity to test the validity of the many conclusions upon which the policy is apparently based. Additionally, such parties must be given a fair chance to build a

record to support their positions. Without such procedures, the proceedings BPA is conducting amount to nothing more than window dressing for a decision that has already been made.

In this case, BPA has conducted an early "clarifying session" (on November 19th and 20th in Portland) during which parties were permitted to ask informal "factual" questions of BPA staff, but could not probe the rationale for the policy beyond what was presented in the issue paper. Nor could parties rely upon the answers received during this session because the session was not recorded. Counsel for the CEC was unable to attend this session but participated in a conference telephone call with BPA staff on November 25th. Upon asking whether the rationale for the apparent refusal to permit assured delivery for exchange transactions was to improve the marketability of BPA's firm surplus power, counsel was advised that this question was beyond the scope of the "clarifying session" and that counsel should consult the issue paper.

On December 9, 1986, BPA held a more formal hearing in Oakland, California to provide the opportunity to comment on the LTIAP and the DEIS and this session was recorded. However, no opportunity to question BPA personnel was afforded during this session until the court reporter was instructed to stop recording the proceedings. The formal portion of this hearing therefore did nothing more than duplicate the opportunity to present written comments, and many parties undoubtedly failed to participate upon hearing that no questions would be allowed.

When counsel for the CEC did ask some questions during this session regarding the extent to which BPA had defined its obligations to the treasury and considered competitive alternatives, no substantive response was provided. Accordingly, the CEC has been obliged to file a Freedom of Information Act request for this information. The CEC has experienced similar problems in attempting to obtain documentation of the assumptions made within the computer modeling supporting the conclusions in the DEIS because those assumptions were not provided in an organized technical appendix to that document.

BPA undoubtedly believes that it is conducting a legally adequate notice and comment proceeding on its LTIAP. Perhaps BPA's reluctance to provide more opportunity to test the basis for its policy is understandable given the amount of litigation spawned by the NTIAP. But in structuring this proceeding to prevent any recorded dialogue between BPA staff and interested parties, and in failing to present all of the detailed assumptions on which the policy and its supporting analyses are based, BPA has robbed the Administrator of the opportunity to ensure that the policy is not only defensible but also the best policy choice.

In short, the procedures BPA is using in this proceeding do not conform to established ratemaking practices and fail to provide interested parties with a meaningful chance to probe the basis for the conclusions set forth in the DEIS as well as the LTIAP and the issue paper. BPA should reissue a new proposed

policy consistent with the comments contained herein, and when it does it should present all of the information necessary to understand the policy and its legal and policy basis. BPA should then conduct a ratemaking proceeding under section 7(i). Alternatively, if BPA does not believe a ratemaking proceeding is legally required, it should voluntarily conduct a proceeding approximating the procedural opportunities provided in that type of proceeding so that parties who still disagree with the policy may fairly test the validity and wisdom of the proposed policy.

CONCLUSION

The LTIAP is one of the most important policies BPA will implement for the remainder of this century. More than any other action, the LTIAP will drive, or at least substantially influence, energy planning decisions both in the Pacific Northwest and in California for many years. This policy will not only determine the extent to which the Pacific Northwest may retain most of the benefits of economy energy transactions with California. It will also determine the extent to which California will value its relationship with the Pacific Northwest energy market, and this, in turn, may result in substantial diminution of BPA's opportunities to collect revenues for its least usable energy.

The increasing balkanization of the two regions from an energy perspective, which could be the result of adopting the

policy as proposed, would be a tragedy of missed opportunities to make maximum use of scarce and valuable national resources. The CEC has urged, and continues to urge, that BPA support and implement policies and rates that truly share the benefits of transactions equally between the regions. Unfortunately, the proposed LTIAP falls far short of such statesmanship and appears instead to be a key element in a plan to ensure that the Pacific Northwest will have the market power to extract most of the benefits of such transactions for itself for the foreseeable future. The CEC must therefore strongly object to the LTIAP and urge that it be rejected or amended consistent with these comments.

Respectfully submitted,

William M. Chamberlain
General Counsel, CEC

DOWNEY, BRAND, SEYMOUR & ROHWER

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December 15, 1986

Freedom of Information Officer
Bonneville Power Administration
P. O. Box 3621
Portland, Oregon 97208

Re: Freedom of Information Request

Dear: Sir:

The undersigned, on behalf of the California Energy Commission, hereby requests copies of the following documents:

Any documents or other materials of any nature subject to disclosure under the Freedom of Information Act (5 U.S.C.A. Section 552) considered by the Bonneville Power Administration (BPA) in proposing or implementing its Near Term Intertie Access Policy (NTIAP) or in proposing its Long Term Intertie Access Policy (LTIAP) which address the following questions:

1) Both the NTIAP and the LTIAP are based in large part on the need to protect Bonneville Power Administration revenues. Both policies fall short of reserving to BPA whatever BPA needs to sell all of its energy. How much of the intertie must BPA reserve for its own sales, under various operating circumstances, in order to meet its obligations to the federal Treasury?

2) Both the NTIAP and the LTIAP allocate transmission capacity to non-federal sellers in fixed shares based upon hydroelectric capacity ratios or declared surplus energy whenever there is insufficient transmission capacity to accomodate all prospective sales. The LTIAP Draft Environmental Impact Statement (DEIS) analyzes a so-called "BPA-first" alternative that similarly divides any intertie capacity available to non-BPA sellers in fixed shares. What are the environmental, economic, and other significant effects of a policy that made whatever portion of the intertie not reserved for BPA sales available to other sellers on a competitive rather than fixed share basis. (A competitive basis as used in this question means allocating intertie capacity to sellers based upon the amount of their surplus energy which has in fact been sold to buyers in California).

The California Energy Commission asked whether BPA had analyzed these issues in its comments at a public hearing chaired by Mr. James Jones of BPA concerning the LTIAP held on December 9, 1986. However, perhaps because BPA representatives had made clear that they were prepared to receive comments but would not respond to them at that hearing, the Commission did not obtain the information it requested at the hearing. Accordingly, it is obliged to make this request as part of its preparation of written comments to BPA on the LTIAP and the related DEIS due January 2, 1986. The Commission therefore respectfully requests that the documents requested herein be provided no later than December 26 so that they can be considered in preparing these comments. This is consistent with the time required for a response to this request set forth in the applicable regulations. See 10 CFR Section 1004.5. To facilitate this response, a copy of this request is being served on Mr. Jones of the BPA staff as well as on those required by law.

By separate motion, the California Energy Commission is asking that the time for filing written documents on the LTIAP be extended if the documents requested herein cannot be provided by December 26, 1986. Such extension is necessary to allow the CEC and other interested parties to consider such documents in preparing their comments.

Enclosed is a check in an amount not to exceed $100.00, to be applied to fees charged for locating and copying the requested records. If the charges exceed that amount, an additional check will be forwarded to cover the balance.

Yours truly,

Christopher T. Ellison

CTE:sh

Enc.

cc: James Jones
William Chamberlain

Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208 - 3621

December 30, 1986

In reply refer to: P

Mr. Christopher T. Ellison
Downey, Brand, Seymour & Rohwer
555 Capitol Mall, 10th Floor
Sacramento, CA 95814-4686

Dear Mr. Ellison:

The following is in response to the Freedom of Information Act request dated December 15, 1986, submitted to Bonneville Power Administration (BPA) by you on behalf of the California Energy Commission. BPA received the request on December 17, 1986, and under provisions of the Freedom of Information Act BPA is required to respond to your request by December 31, 1986.

BPA does not possess any "documents or other materials of any nature" of the type you requested. BPA has not conducted such analyses. However, the followir g answers are provided to give you an understanding of BPA's examination of related issues. Where appropriate, documentation is referred to in the answer and copies of that documentation have been enclosed.

Question 1: "Both the NTIAP and the LTIAP are based in large part on the need to protect Bonneville Power Administration revenues. Both policies fall short of reserving to BPA whatever BPA needs to sell all of its energy. How much of the intertie must BPA reserve for its own sales, under various operating circumstances, in order to meet its obligations to the federal Treasury?"

Answer: First, it must be clear that BPA has not implemented a Long Term Intertie Access Policy, and that the LTIAP to which you refer is a draft proposed for public comment. Second, as the question noted, the NTIAP and draft LTIAP do not reserve intertie capacity for BPA's exclusive use to make sales of all of BPA's surplus energy. Rather, the policies enable BPA to utilize capacity equal to its average firm energy surplus to make firm sales, and to receive a pro rata share, based on BPA's declaration of energy available along with that of Pacific Northwest scheduling utilities, of the hourly allocations of intertie capacity for the purposes of making hourly energy sales. The issue of BPA's reservation of capacity was raised by commenters on the Interim and Near Term Intertie Access

Policies, and was discussed on pages 6-7, 9-11, 56-57, and 58 of the Administator's Record of Decision on the Interim Near Term Intertie Access Policy and page 18 of the Administrator's Record of Decision on the Near Term Intertie Access Policy (both documents are attached). As noted on page 9 of the Interim ROD, while it is within the Administrator's discretion to reserve all intertie capacity that BPA could use, the Administrator has not chosen to exercise this discretion in that manner. BPA has not conducted an analysis of the capacity that would need to be reserved should BPA implement such a policy.

Question 2: "The LTIAP Draft Environmental Impact Statement (DEIS) analyzes a so-called "BPA-first" alternative that similarly divides any intertie capacity available to non-BPA sellers in fixed shares. What are the environmental, economic, and other significant effects of a policy that made whatever portion of the intertie not reserved for BPA sales available to other sellers on a competitive rather than fixed share basis?"

Answer: To date, BPA has not conducted such analyses. The Systems Analysis Model (SAM), which is the basis of the environmental and economic analyses of the LTIAP alternatives, is a regionwide model, and as such is not capable of modeling competition among Pacific Northwest sellers. In fact, the "BPA first" alternative in the DEIS is modeled as a "hydro first" alternative; this is believed to closely simulate access for BPA's resources first.

Should you wish to appeal this response, you may make an appeal in writing within 30 days of receipt of this letter to the Office of Hearings and Appeals, Department of Energy, 1000 Independence Ave., S.W., Washington, D.C. 20585. Both the appeal letter and envelope must be marked "Freedom of Information Act Appeal."

Sincerely,

James L. Jones

James L. Jones
Deputy Assistant Administrator for
Power and Resources Management

Attachments

cc:
Mr. Gene Tollefson, Freedom
of Information Officer

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January 15, 1987

BY AIR COURIER

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
1002 N.E. Holladay
Portland, Oregon 97212

Re: Long Term Intertie Access Policy,
BPA File No.: TIE-1

Dear Ms. Geiger:

Pursuant to the November 3, 1986 Federal Register notice, the City of Vernon, California submits its comments.

As noted in Vernon's previous comments on Intertie access matters, Vernon owns and operates a system for the purchase, distribution and sale of electric power and energy. At the present time, Southern California Edison Company is Vernon's major supplier of firm power, however, Vernon also purchases firm capacity from the California Department of Water Resources, supplies a portion of its needs with its diesel generating plant and its share in the Palo Verde Nuclear Generating Station, and purchases non-firm energy from various sources.

Vernon desires to purchase power and energy from Northwest suppliers, including BPA, but at present is unable to obtain meaningful access to transmission on the Intertie through the California Intertie owners. In order to obtain access to the Intertie, Vernon has, among other things, sought to participate in the upgrades to the DC and AC Intertie lines, and has brought suit under the antitrust laws against Edison.

Vernon expects to receive an allotment in the third AC Intertie line beginning in the early 1990's.

Vernon has several direct concerns in regard to the long term Intertie access policy. Each of these concerns has

raised by Vernon in regard to previous Intertie access policy proposals, but, while BPA has recognized Vernon's concerns to some extent, the access policies themselves have not provided Vernon with any relief. First, BPA should utilize the Intertie access policy to require the California utilities which currently enjoy direct access to the Intertie to provide reasonable access to Intertie facilities to utilities, such as Vernon, that do not presently have access to the Intertie. BPA has many times expressed its concern over the fact that utilities with access to the southern portion of the Intertie restrict that access to the detriment of potential southwest customers and northwest sellers. BPA has considerable leverage over those with present access to the Intertie. BPA shuld use its leverage to require southwest utilities to make transmission available to Vernon and others without transmission to the northwest.

Conditioning the Intertie access policy to require that access to the southern portion of the Intertie be made available to utilities such as Vernon would be consistent with BPA's duty to take into account the effects of its actions on competition.

At the January 28, 1986 meeting on Intertie Access for Extra Regional Resources, BPA's Deputy Power Manager recognized that some municipals in California (such as Vernon) are without transmission to the Northwest and suggested that BPA might consider allowing Intertie access to Canadian power if companies such as PG&E (and Edison) would allow "free flowing transmission throughout the West." BPA Meeting Notes at page 3. BPA is on the right track in thinking that it can use its control over portions of the Intertie above the California border to strongly encourage the California utilities to make transmission available to entities like Vernon. Whether or not Canadian power is allowed Intertie access, BPA should use every means at its disposal to require that that transmission be made available.

Vernon's second concern is that the Long Term Intertie access policy should not be so rigid as to be unresponsive to the range of conditions that may exist in the future. In particular, Vernon and other potential southwest purchasers may not have access to the northwest until completion of the third AC line. The long term access policy should ensure that purchasers not obtaining transmission from the northwest until after the establishment of the policy have fair access to the northwest Intertie facilities.

Vernon has commented on the proposed firm displacement program in the FD contract principles proceeding and in the FD rate proceeding. Vernon will not repeat that discussion here except to state that a sale of displaced power under the FD pro-

gram is in effect a sale of BPA power and to the extent necessary this fact should be reflected in the Intertie access policy. For instance, pursuant to the public body preference, a direct sale of BPA surplus power or a sale of FD displaced power to a public body in the southwest must be given priority, including transmission priority, over a direct sale of BPA surplus power or a sale of FD displaced power to an investor-owned utility in the southwest. This priority should be reflected in the access policy. The presently proposed policy implicitly recognizes that a sale by a northwest utility made possible by a sale to that utility by BPA under the FD program is the equivalent of a sale out-of-region by BPA because an "FD Supported Sale" is given the same priority to intertie access as a direct BPA sale. See, e.g., Intertie Access Policy II. D. "Intertie Capacity Reserved for BPA" 3.b., 51 Fed. Reg. at p. 39908.

We understand that BPA allocates Intertie capacity to Northwest entities for a full day at a time. See Intertie Access Policy, F "Formula Allocation Methods." Vernon urges that BPA provide for hour-by-hour reallocations of Intertie access to the extent any daily allocation would not be fully utilized. We understand that after Intertie allocations are made to northwest entities, energy offered by some entities often turns out to be too expensive to attract southwest buyers. Edison offers interruptible transmission service on an hour-by-hour basis under some circumstances, such as certain transmission service provided to Vernon for transmission to the east. If the Intertie access or other policies allocate access a day in advance without provision for reallocation of unused transmission on an hour-by-hour basis, it would impede Vernon from carrying out a cost effective transaction with the northwest.

Vernon appreciates the opportunity to comment on these matters.

Very truly yours,

Channing D. Strother, Jr.
Attorney for
City of Vernon, California

CDS/jat

cc: David B. Brearley, Esq.
City Attorney, City of Vernon
David C. Hjelmfelt, Esq.
Mr. Whitfield A. Russell

MONTANA POWER COMPANY

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January 16, 1987

Donna L. Geiger
Public Involvement Manager
P.O. Box 12999
Portland, Oregon 97212

HAND DELIVERY

Re: BPA File No. TIE-1

Dear Ms. Geiger:

Enclosed for filing with the Bonneville Power Administration are The Montana Power Company's Comments on the Proposed Long Term Intertie Access Policy. Thank you for your assistance in this matter.

Yours sincerely,

Daniel O. Flanagan

enc.

dof0013ks

Attachment
TIE-1-54

THE MONTANA POWER COMPANY'S

COMMENTS ON THE

PROPOSED LONG TERM INTERTIE ACCESS POLICY

I.

INTRODUCTION

The Montana Power Company (Montana Power or the Company) is pleased to have this opportunity to comment on the Proposed Long Term Intertie Access Policy (or the Proposed Policy) (dated: October 1986) issued by The Bonneville Power Administration (BPA). See 51 Fed. Reg. 39904 (1986). The Proposed Policy allocates use of the capability of the federally owned northern portion of The Pacific Northwest - Pacific Southwest Intertie (Intertie).

As discussed below, since 1983, BPA has denied long term firm access to the Intertie by non-Federal utilities. This moratorium was formally instituted by BPA in its (Interim) Near Term Intertie Access Policy (dated: September 7, 1984). This moratorium against long term firm access to the Intertie has frustrated Montana Power's efforts to market its electrical energy on a long term basis.

The Company's efforts have focused on marketing the output of Colstrip Unit 4, a 700 megawatt coal-fired generating plant located at Colstrip, Montana. Montana Power owns 30 percent of Colstrip Unit 4, or 210 megawatts. The remainder of the plant is owned by

four other utilities. Colstrip Unit 4 was planned in the early 1970's. However, due to the hearings necessary to secure a "Certificate of Public Need and Environmental Compatibility," as well as certain legal challenges, major construction did not begin until 1979. Colstrip Unit 4 went into commercial operation in April 1986. Beginning in 1983, the Company, recognizing that Colstrip Unit 4 would not be needed to serve its own loads, began an extensive effort to market Colstrip Unit 4 power. Montana Power has been contacting and continues to contact potential purchasers throughout the western United States.

For a number of reasons, California utilities are the most likely purchasers of Colstrip Unit 4 -- an attractive long term low-cost resource for them. It has been difficult to negotiate a contract because BPA has refused to commit sufficient Intertie access to transmit power into California. See Letter, Labrie (MPC) to Jones (BPA), December 2, 1986. However, Montana Power recently entered into a Letter of Intent by which the City of Los Angeles Department of Water and Power will purchase up to one-half of the output of Colstrip Unit 4. That sale will take place only if BPA grants sufficient Intertie access to transmit the power. Id. As dicussed below, the Proposed Policy does not allocate sufficient Intertie capacity to permit the contemplated sale to Los Angeles to take place.

II.

SUMMARY OF OBJECTIONS

A. ASSURED DELIVERY

Montana Power has two principal objections to the Assured Delivery provisions of the Proposed Long Term Intertie Access Policy, under which firm access to the Intertie is granted. First, under § 9(i)(3) of the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act), Montana Power has a priority to receive transmission access for its 210 megawatt share of Colstrip Unit 4. The Proposed Policy effectively provides Montana Power with no assistance pursuant to § 9(i)(3).

Secondly, because BPA is required to make transmission available on a "fair and nondiscriminatory basis," the Company is entitled to receive Assured Delivery for its entire "average firm surplus," just as every other Northwest utility receives. The Proposed Policy discriminates against Montana Power by providing Assured Delivery for only 1/3 of the Company's average firm surplus.

B. FORMULA ALLOCATION

Montana Power also has two basic objections to the Formula Allocation provisions by which available Intertie capacity is allocated on a nonfirm basis. First, the Proposed Policy provides no recognition of Montana Power's § 9(i)(3) Priority to receive marketing services from BPA. Second, the Condition 1 formula for allocation is based solely on hydroelectric capability. Those

utilities, including BPA, which have more hydroelectric capability than other utilities, receive a greater allocation of nonfirm Intertie capacity. This allocation is arbitrary and capricious because many utilities, including BPA, have thermal resources.

III.

BACKGROUND AND DESCRIPTION OF POLICY

A. BACKGROUND

Until the early 1980's, when the Pacific Northwest region's power surplus started to appear, sufficient Intertie capacity usually existed to meet the needs of all utilities which wanted to use it. The one exception occurred during "spill" conditions, when the "Exportable Agreement" allocated the available capacity among those selling power on a nonfirm basis. Except when the Exportable Agreement was in effect, BPA allowed utilities to use the Intertie as needed. See BPA, Issue Alert, "Using the Only Northwest to Southwest Powerlines: The Intertie" at 2-4 (February 1984).

In 1983, BPA, concerned about the impact of the growing surplus on the use of the Intertie, began to deny requests for firm access until it developed a policy to govern Intertie access. Id. BPA found such a policy necessary because:

> BPA and other Pacific Northwest utilities have surplus resources for a considerable period in the future. It appears that there will be more potential users of the Intertie than there is available Intertie capacity. Several utilities, resource developers, and other parties have recently asked BPA for firm or nonfirm contractual access to the Northwest portion of the Intertie.

BPA, "Notice of Intent to Develop Policy on Providing Access to the Pacific Northwest - Pacific Southwest Intertie: Requests for Recommendations" at 3 (July 15, 1983). BPA announced its intention "to establish a policy to guide its response to requests from non-Federal parties for use of its Intertie capacity" in July 1983. Id. at 1.

It took BPA until September 7, 1984, to issue, on an interim basis, a Near Term Intertie Access Policy to be effective for six months. It was then to be revised and to be effective for another 18 months when it was to be superseded by the Long Term Intertie Access Policy. BPA originally contemplated that the Long Term Intertie Access Policy would be issued in draft by the fall of 1984. BPA, Near Term Intertie Access Policy, Record of Decision at 2-3 (September 1984).

The (Interim) Near-Term Intertie Access Policy continued BPA's practice of prohibiting long term Intertie access and explicitly incorporated the moratorium against such access by non-Federal parties. Under it, firm access to the Intertie (called Assured Delivery) for new power sales contracts would not extend beyond July 1986. Near Term Intertie Access Policy § D.1.b. Thus, since early 1983 (through today), BPA has denied requests for firm access to the Intertie on a long term basis by non-Federal utilities.

Because of this moratorium, Montana Power began to pursue, among others, two new alternatives in its effort to market power from Colstrip Unit 4: 1) have BPA, pursuant to § 6(c) of the Northwest Power Act, acquire Colstrip Unit 4; or, in the alternative, 2) have BPA, pursuant to § 9(i)(3) of the Northwest Power Act, give Colstrip Unit 4 a priority to BPA's marketing services, including transmission.

On March 6, 1985, Montana Power offered to sell to BPA 100 percent of the Company's share of the capability of Colstrip Unit 4. Letter, Schmechel (MPC) to Johnson (BPA), March 6, 1985. In making that offer, Mr. Schmechel noted that a priority to marketing services would attach to Montana Power's share of Colstrip Unit 4 if BPA did not purchase it. The offer remained dormant for an entire year during which time BPA evaluated the offer and developed its "Legal Interpretation of Section 9(i)(3) of the Pacific Northwest Electric Power Planning and Conservation Act" (the Interpretive Rule).

B. THE STATUTE AND THE INTERPRETIVE RULE

The Northwest Power Act requires BPA to give a priority to marketing services, including transmission, for the output of certain resources. Section 9(i)(3) reads:

> The Administrator shall furnish services including transmission, storage, and load factoring unless he determines such services cannot be furnished without substantial interference with his power marketing program,

> applicable operating limitations or existing contractual obligations. The Administrator shall, to the extent practicable, give priority in making such services available for the marketing, within and without the Pacific Northwest, of capability from projects under construction on the effective date of this Act, if such capability has been offered for sale at cost, including a reasonable rate of return, to the Administrator pursuant to this Act and such offer is not accepted within one year.

Northwest Power Act § 9(i)(3), 16 U.S.C. 839f(i)(3) (emphasis added).

Because Montana Power's offer would give rise to a § 9(i)(3) Priority, BPA developed its Interpretive Rule specifically to address Colstrip Unit 4 and its impact on the expected Intertie Access Policy. BPA in proposing its Interpretive Rule stated:

> BPA needs to interpret section 9(i)(3) because it has received an offer of project capability under the terms of section 9(i)(3). In addition, the section 9(i)(3) priority affects the implementation of BPA's power marketing program and policies, such as the Intertie Access Policy.

51 Fed. Reg. 4787 (1986). Montana Power's comments on the Proposed Interpretive Rule stated that the Company had offered Colstrip Unit 4 to BPA and that its offer, if not accepted, would effectuate the § 9(i)(3) Priority. See The Montana Power Company's Comments on the Proposed Legal Interpretation of § 9(i)(3) at 1.

The Interpretive Rule was adopted by BPA on March 7, 1986. Two of its provisions are relevant: the qualification for the

§ 9(i)(3) Priority and the relationship of the § 9(i)(3) Priority to BPA's marketing services.

The first provision, "Qualification for the section 9(i)(3) priority," reads:

> Project capability qualifies for the section 9(i)(3) priority if it is from a project:
>
> (1) of a Pacific Northwest utility customer of BPA;
>
> (2) located within or without the Pacific Northwest; and
>
> (3) under construction by a Pacific Northwest utility customer on December 5, 1980;
>
> if the capability was offered for sale to BPA at cost, including a reasonable rate of return; and BPA has rejected the offer, or has not accepted the offer within one year from the date of the offer.

Interpretive Rule § II.B.1.a.

The second provision, "Relationship of the section 9(i)(3) priority to BPA's marketing services," provides:

> Project capability which qualifies for the section 9(i)(3) priority shall have a priority, in the event that there are competing requests, to BPA marketing services, including transmission, storage, and load factoring, at established rates or charges, which BPA is making available to other Pacific Northwest utility customers under policies and programs for which the project capability otherwise qualifies.
>
> The section 9(i)(3) priority does not confer independently any substantive right to services not otherwise being offered by BPA, or require any modification of any of BPA's marketing services for the reason that the statute grants a priority to the services as BPA may offer. Priority shall be provided to the extent practicable, and the services shall be provided unless BPA determines that such services cannot be furnished without substantial interference with BPA's power marketing program, applicable operating limitations, or existing contractual obligations. BPA shall not breach existing contracts or other lawful obligations to provide services. Section 9(i)(3) implicitly recognizes that the type and amount of services BPA provides are separate questions to be addressed in other BPA policies.

Interpretive Rule § II.B.2. As discussed below, the Proposed Policy violates both of these provisions of the Interpretive Rule.

On the date the Interpretive Rule was promulgated, the Administrator of BPA informed the Company that, although BPA was not acquiring Montana Power's share of the output of Colstrip Unit 4, "to the extent practicable, BPA [would] provide Montana Power's [100 percent share of Colstrip Unit 4] the section 9(i)(3) priority to marketing services made available by BPA." Letter, Johnson (BPA) to Schmechel (MPC), March 7, 1986. In that same letter, Administrator Johnson stated that the § 9(i)(3) Priority provides Montana Power with a priority to an available service should BPA receive competing requests for the service and the total requests for such service exceed the amount of service available. Id.

Montana Power filed for judicial review of the Interpretive Rule. That action, Docket No. 86-7330, is pending before the U.S.

Court of Appeals for the Ninth Circuit. It has been stayed until February 1987[1].

The Company proposed the stay in the Ninth Circuit proceeding in the hope that BPA, in its Long Term Intertie Access Policy, would provide meaningful assistance to Montana Power pursuant to § 9(i)(3). However, the Proposed Policy provides no assistance at all pursuant to § 9(i)(3). BPA applies the § 9(i)(3) Priority in a manner that violates both the Northwest Power Act and BPA's Interpretive Rule. The Proposed Policy also violates BPA's express commitment to provide a priority to marketing services for 100 percent of Montana Power's share of Colstrip Unit 4.

C. DESCRIPTION OF POLICY

1. Assured Delivery (Without Regard to § 9(i)(3)). The Proposed Long Term Intertie Access Policy allocates firm access to the Intertie under the "Assured Delivery" provisions. BPA provides Assured Delivery only for power from BPA Resources and Qualified Pacific Northwest Resources. Proposed Policy § C.2. Under § A.14 of the Proposed Policy, "Qualified Pacific Northwest Resources" means "Existing Pacific Northwest Resources." "Existing Pacific Northwest Resources" include 1) the Pacific Northwest Resources of

1 The Company on January 15 reported to the 9th Circuit that the Proposed Policy had been issued and that the action should be placed on a briefing schedule.

Scheduling Utilities that were operational on September 7, 1984[2], and 2) the extra-regional resources of Scheduling Utilities dedicated to Pacific Northwest load on September 7, 1984, including a pro rata portion of Montana Power's share of Colstrip Unit 4 based on the ratio of its regional load to its total load. Proposed Policy § A.7. Thus, Assured Delivery is granted to Montana Power for a pro rata portion of its resources, including Colstrip Unit 4, which BPA determines is dedicated to regional load.

Each utility, without regard to § 9(i)(3), is entitled to a maximum amount of Assured Delivery equal to its "average firm energy surplus," resulting from its Qualified Pacific Northwest Resources. This average firm surplus is shown on Exhibit B. Proposed Policy § E.1.(a). The Proposed Policy does not calculate Exhibit B, but rather states that "Exhibit B is proposed to be developed as it was for the Near Term Intertie Access Policy, based on regional planning documents." Proposed Policy at 15. The methodology used to develop Exhibit B of the Near Term Intertie Access Policy explicitly acknowledges that the average firm energy surplus for Montana Power includes only that proportion of the Company's average firm surplus which represents the percentage of the Company's regional load to its total load. Because 1/3 of

2 BPA has clarified that "Pacific Northwest Resources" refers not to physical location but rather to resources which have been dedicated to serving the Pacific Northwest.

Montana Power's load is in the Pacific Northwest, 1/3 of its average firm surplus is listed on Exhibit B and qualifies for Assured Delivery. See Letter, Jones (BPA) to Labrie (MPC), October 31, 1986, Attachment 1. Exhibit B developed pursuant to the Near Term Intertie Access Policy grants Montana Power 79 megawatts of Assured Delivery without regard to its § 9(i)(3) priority. Id. The 79 megawatts of Assured Delivery granted to Montana Power under Exhibit B is insufficient to accomplish the sale of Colstrip Unit 4 power to Los Angeles[3].

2. Assured Delivery for § 9(i)(3) Priority Resources. In addition to Assured Delivery for the "average firm surplus" of a utility, the Proposed Policy ostensibly recognizes the § 9(i)(3) Priority in § E.6, "Assured Delivery for Section 9(i)(3) Priority Resources." It reads:

> A Scheduling Utility will be granted Assured Delivery for the total regional share of a section 9(i)(3) Priority Resource even if the amount of Assured Delivery exceeds the Exhibit B of the Scheduling Utility, if the contract under which the section 9(i)(3) priority resource is sold is otherwise in compliance with the terms of this policy.

Proposed Policy § E.6.

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3 BPA presently refuses to commit sufficient Intertie access to accomplish this sale because that commitment, BPA says, can only be made, if at all, in the Long Term Intertie Access Policy. This reflects BPA's conclusion that § 9(i)(3) does not grant a substantive right. An issue in the challenge to the Interpretive Rule is whether BPA may refuse to provide a service to a § 9(i)(3) resource merely because it has not yet promulgated a policy regarding that service.

In this section, BPA limits the Assured Delivery, granted pursuant to § 9(i)(3), to the "regional share of a section 9(i)(3) resource." As noted above, regional share is the percentage of a utility's load located in the Pacific Northwest. Because 1/3 of Montana Power's load is located in the Pacific Northwest, only 1/3 of Colstrip Unit 4, amounting to 70 MW, qualifies for Assured Delivery pursuant to § 9(i)(3). BPA, "Montana Power Company and Intertie Access Policy," Attachment 2.

However, the amount of Assured Delivery for § 9(i)(3) Priority Resources is not to be added to the amount established by Exhibit B. Id. As noted above, Montana Power is entitled to 79 megawatts of Assured Delivery for its average firm surplus without regard to its § 9(i)(3) Priority. The § 9(i)(3) Priority implemented by § E.6 of the Proposed Policy would come into play only if Montana Power's "regional" share of Colstrip Unit 4 exceeded that amount. The limitation of Montana Power's § 9(i)(3) Priority to 70 megawatts on the basis of "regionality" therefore means that the § 9(i)(3) Priority, as applied, effectively provides Montana Power with no priority at all. Thus, the Company is in the very same position as it would have been had it not offered Colstrip Unit 4 to BPA and perfected its § 9(i)(3) Priority.

3. Formula Allocation. The Proposed Long Term Intertie Access Policy also provides a mechanism for allocating available Intertie capacity on a nonfirm basis. The mechanism is called "Formula Allocation." Intertie capacity available for nonfirm power sales will be allocated according to one of three formulae depending upon which condition exists.

Condition 1 is when the Exportable Agreement is declared to be in effect. After the Exportable Agreement terminates on December 31, 1988, Condition 1 "will be in effect when the Federal system is in spill or in likelihood of spill as determined by BPA." Proposed Policy § F.2.a. Under Condition 1, a "Scheduling Utility's allocation will be limited by the ratio of the Scheduling Utility's hydroelectric capacity to the total regional hydroelectric capacity multiplied by the total of all allocations." Proposed Policy § F.2.a(2). This provision allocates nonfirm Intertie capacity based on the proportion that a utility's hydroelectric capacity bears to the region's hydroelectric capacity: the more hydroelectric resources a utility or BPA has, the greater its allocation.

Condition 2 exists when there is an oversubscription of the Intertie, but the Federal system is not in spill conditions. In this situation, Intertie capacity is allocated based on the ratio of a utility's declaration (of the amount of power it has available to sell) to the sum of all declarations for each hour multiplied by available Intertie capacity. Proposed Policy § F.2.b(2).

During Condition 3, there is sufficient Intertie capacity to meet the needs of the scheduling utilities and each utility receives an allocation equal to its declaration of power available for sale. Proposed Policy § F.2.c.

IV.

STATUTORY AUTHORITIES

The Proposed Long Term Intertie Access Policy must be evaluated with reference to the basic statutory provisions governing BPA activities related to the generation and marketing of electricity. These statutes are: (1) the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act), 16 U.S.C. §§ 839-839h; (2) the Federal Columbia River Transmission System Act (Transmission System Act), 16 U.S.C. §§ 838-838k; 3) the Pacific Northwest Power Preference Act (Preference Act), 16 U.S.C. §§ 837-837h; and 4) the Bonneville Project Act, 16 U.S.C. §§ 832-8321. The antitrust laws are also relevant to BPA's conduct here.

The development of a policy of such importance as the Proposed Policy must be guided by the statutory obligations established in this complex of laws. BPA fails to identify and to articulate the statutory authorities governing the development and implementation of the Proposed Policy. BPA's failure to perform this fundamental first step results in a Proposed Policy which confuses various statutory obligations and principles, ignores some statutory obligations, and incorporates inapplicable principles.

A review of these statutes shows the historical development and evolution of BPA's duties and responsibilities relating to the transmission of electric energy.

A. BONNEVILLE PROJECT ACT

The Bonneville Project Act is the enabling legislation creating BPA. The powers and responsibilities given to BPA have been expanded by subsequent legislation. The Bonneville Project Act recognized the importance of transmission and directed the Administrator to construct and maintain electric transmission lines connecting the Bonneville Project to markets for the electricity and to other federal projects and public utilities, "[i]n order to encourage the widest possible use of all electric energy that can be generated and marketed and to provide reasonable outlets therefor, and to prevent the monopolization thereof by limited groups." Bonneville Project Act § 2(b), 16 U.S.C. 832a(b).

B. PACIFIC NORTHWEST POWER PREFERENCE ACT

The Preference Act restricts the sale of federal energy outside the Pacific Northwest[4]. The Preference Act in § 6 requires

4 As discussed in Part V.B. below, the concept of "regionality" was undoubtedly conceived in response to the Congressional mandate in the Preference Act that power generated at Federal hydroelectric projects in the Pacific Northwest be used primarily in the Pacific Northwest. The concept of regionality has not been incorporated into the laws governing BPA's transmission facilities, and it is inappropriate for BPA to restrict Intertie access on the basis of regionality.

BPA to make transmission capability available to other utilities. Importantly, the Preference Act permitted the construction of the Intertie. See H.R. Rep. No. 590, reprinted in 1964 U.S. Code Cong. & Ad. News 3342, 3344.

The Intertie, as acknowledged by BPA, was conceived as a common carrier:

> The present Intertie resulted from instructions contained in President Kennedy's 1961 Message to Congress on Natural Resources:
>
> > ". . . I have directed the Secretary of the Interior to develop plans for the early interconnection of areas served by that Department's marketing agencies with adequate common carrier transmission lines; to plan for further national cooperative pooling of electric power, both public and private; and to enlarge such pooling as now exists."

U.S. Department of the Interior, "Power and the Pacific Northwest: A History Of The Bonneville Power Administration," at 76-77 (1976) (emphasis added).

This concept that the Intertie was a common carrier was incorporated into the Preference Act. It provides that:

> Any capacity in Federal transmission lines connecting, either by themselves or with non-Federal lines, a generating plant in the Pacific Northwest or Canada with the other area or with any other area outside the Pacific Northwest, which is not required for the transmission of Federal energy or the energy described in section 9 [16 U.S.C. § 837h], shall be made available as a carrier

> for transmission of other electric energy between such areas.

Preference Act § 6, 16 U.S.C. 837e.

The House Report accompanying the Preference Act emphasizes the need for non-Federal utilities to have access to BPA's transmission grid. Accordingly, it expresses the Congressional intent that "excess capacity" is not to be interpreted in a restrictive way so as to avoid the wheeling obligation.

> Excess capacity in any Federal transmission lines interconnecting the Pacific Northwest with another marketing area is made available for wheeling non-Federal energy. . . . Wheeling agreements on either an excess capacity basis or a firm basis are authorized. However, if the wheeling agreement is on a firm basis the existence of excess capacity will be determined and frozen at the time the wheeling contract is executed. Thereafter, the energy of any party for whom the Secretary has agreed to wheel, cannot be displaced by any subsequent increase in the needs of the Federal Government. . . . In determining the existence of capacity excess to the needs of the Government, Federal needs reasonably foreseeable may be included, but the Secretary may not decline to enter into a wheeling agreement merely because he may have energy available for sale to serve the same load.

H.R. Rep. No. 590, reprinted in 1964 U.S. Code Cong. & Ad. News 3342, 3350 (emphasis added). Simply put, BPA must not restrict access to the Intertie because it may have energy available to serve the same market which a non-Federal utility is trying to serve. Recently, the Ninth Circuit discussed this requirement.

> BPA is permitted, therefore, to reserve sufficient Intertie capacity not only for its current needs but also for its "forseeable" future needs, so long as the agency does not compete with other utilities on the mere speculation that it 'may have energy available' sometime in the future to sell to the same customer.

Department of Water & Power v. BPA, 759 F.2d 684, 692 (9th Cir. 1985).

C. FEDERAL COLUMBIA RIVER TRANSMISSION SYSTEM ACT

BPA's authority to finance the construction of transmission facilities is established in the Transmission System Act, which represents the basic law governing the use of the Federal transmission system by non-Federal entities. It was largely pursuant to the Transmission System Act that BPA was able to construct a high voltage transmission grid throughout the Northwest. BPA owns 80 percent of the region's high voltage transmission lines. H.R. Rep. No. 976, reprinted in 1980 U.S. Code Cong. & Ad. News 5989, 6024.

A significant provision of the Transmission System Act, particularly relevant to the Intertie Access Policy, made even more explicit the common carrier concept previously incorporated into the Preference Act. Section 6 provides:

> The Administrator shall make available to all utilities on a fair and nondiscriminatory basis, any capacity in the Federal transmission system which he determines to be in excess of the capacity required to transmit electric power generated or acquired by the United States.

Transmission System Act § 6, 16 U.S.C. § 838d (emphasis added). The requirement is that BPA make transmission available to all utilities on a "fair and nondiscriminatory basis." BPA has recognized that "[r]equiring availability on a 'fair and nondiscriminatory basis' prevents the Administrator from being selective about either the kind or the location for generation to be added to the main transmission grid." U.S. Department of Energy, Revised Draft Environmental Impact Statement, "The Role of the Bonneville Power Administration in the Pacific Northwest Power Supply System Including Its Participation in a Hydro-Thermal Power Program" at p. III-11 (April 1980).

The House Report emphasizes the importance of assuring non-discriminatory access to the Federal transmission system.

> Section 6 provides that the Administrator of BPA shall not discriminate between public and private power entities in contracting for use of transmission line capacity which is surplus to the Administrator's requirements for transmitting Federal power. The Committee understands that it is essential that non-Federal entities be able to secure transmission service through the Federal System on a non-discriminatory basis, in order to assure that marketability of power to be produced from future non-Federal generating plants.

H.R. Rep. No. 1375, reprinted in 1974 U.S. Code Cong. & Ad. News 5810, 5814 (emphasis added).

The Transmission System Act demonstrates that the Federal transmission system must serve all utilities, not just BPA or

selected utilities favored by BPA. The non-Federal utilities' urgent need for transmission capability was largely responsible for the enactment of the Transmission System Act. The House Report states:

> Unless BPA can be assured of its ability to provide, in a timely manner, backbone transmission capacity, non-Federal utilities may be foreclosed or reluctant to proceed with the major investments required to install major blocks of generating capacity when needed to meet regional growth requirements.

Id. at 5812.

BPA was granted authority in the Transmission System Act to construct the Pacific Northwest region's high voltage transmission grid, not just to transmit Federal power, but the power of non-Federal utilities. BPA must provide "fair and nondiscriminatory" access to its transmission grid to assist in the marketing of non-Federal power.

D. PACIFIC NORTHWEST ELECTRIC POWER PLANNING AND CONSERVATION ACT

The Northwest Power Act authorized BPA to acquire resources to serve the Pacific Northwest, established a mechanism for comprehensive planning, and allocated power among various Northwest entities. Aluminum Co. of Am. vs. Cent. Lincoln Peoples' Util. Dist., 467 U.S. 380, 104 S. Ct. 2472, 2478 (1984). In addition, it added certain requirements regarding BPA's obligation to provide transmission for non-Federal utilities. For example, § 9(d) reads, in part:

> In addition to the directives contained in subsections (i)(1)(B) and (i)(3) and subject to:
>
> (1) any contractual obligations of the Administrator,
>
> (2) any other obligations under existing law, and
>
> (3) the availability of capacity in the Federal Transmission systems,
>
> the Administrator shall provide transmission access, load factoring, storage and other services normally attendent thereto to such utilities and shall not discriminate against any utility or group thereof on the basis of independent development of such resource in providing such services.

Northwest Power Act § 9(d), 16 U.S.C. 839f(d).

Section 9(d) reaffirms the requirement of the Transmission System Act that BPA make transmission available in a "fair and nondiscriminatory manner." The House Report accompanying the Northwest Power Act states that § 9(d):

> requires BPA to provide available services and facilities to such utilities for such sales, and prohibits BPA from discriminating in the provision of such services against any utility or group thereof on the basis of their independent development of resources. Both parts of this subsection therefore preserve the individual and collective independence of utilities and groups of utilities, as well as reaffirming the requirement contained in section 6 of the Federal Columbia River Transmission System Act that BPA make available on a firm and non-discriminatory basis Federal transmission system capacity in excess of the capacity required for power generated or acquired by the United States.

H. R. Rep. No. 976, reprinted in 1980 U.S. Code Cong. & Ad. News 5989, 6053.

Section 9(i) of the Northwest Power Act also addresses BPA obligation to assist non-federal utilities in the disposition of power. § 9(i)(1) requires, in part, that:

> At the request and expense of any customer or group of customers of the Administrator within the Pacific Northwest, the Administrator shall, to the extent practicable
> . . . .
> (B) dispose of, or assist in the disposal of, any electric power that a customer or group of customers propose to sell within or without of the region . . . if such disposition is not in conflict with the Administrator's other marketing obligations and the policies of this Act and other applicable laws.

Northwest Power Act § 9(i)(1), 16 U.S.C. 839f(i).

In addition, § 9(i)(3), set out above at pages 6-7, creates in certain resources a priority to receive marketing services. The legislative history explains § 9(i) as follows:

> Section 9(i) sets forth additional services BPA is to provide its customers, at their request and expense, with respect to power sales and purchases of their own. This subsection essentially ratifies BPA's existing policies on service, except that paragraph (3) creates a limited and contingent priority on BPA's available services for the marketing of power from projects currently under construction in the region, should BPA decline to acquire these resources.

H. R. Rep. No. 976, reprinted in 1980 U.S. Code Cong. & Ad. News 5989, 6054. BPA's Legal Interpretation of § 9(i)(3) is discussed below.

E. FEDERAL ANTITRUST LAWS

The Supreme Court has imposed upon agencies regulating the electric power industry the duty to consider "the fundamental national economic policy expressed in the antitrust laws." Gulf States Utilities Co. v. Federal Power Comm., 411 U.S. 747, 759, 93 S.Ct. 1870, 1878 (1973). It is clear that BPA may not ignore the antitrust implications of its actions. BPA's antitrust counselor has noted:

> [T]hese laws are an important part of the law of the land. Their purpose is to encourage the effective functioning of markets. As the BPA Administrator has indicated in discussing the agency program, that goal is consistent with BPA's general statutory objectives and, where relevant, should be taken into account along with other goals in planning BPA activities.

Letter, Sullivan to Spigal, p. 4 (May 31, 1984).

Professor Sullivan cautioned BPA (in connection with the Agency proposal by which BPA would act as an agent for other Pacific Northwest utilities): "A court, in construing the scope of that power [to market other utilities' energy] might seek to avoid tension with the antitrust laws by construing BPA's authority as excluding any conduct which, if BPA were not a federal instrument, would violate the antitrust laws." Id. at p.4. That precaution

surely applies to the adoption of a policy such as the Long Term Intertie Access Policy which greatly affects the competitive relationship between utilities and especially between BPA and any other utility.

There is a particular need for close scrutiny of BPA actions and policies now when BPA is actively competing with other utilities to market its surplus power. Montana Power, which has no independent transmission path to California, has been aggressively competing with BPA to obtain a market in California for its electric energy. In view of this competition, any BPA policy which restricts in a discriminatory manner Montana Power's access to the essential facilities of the Intertie is surely suspect. (Cf. Otter Tail Power Co. v. U.S., 410 U.S. 366, 93 S. Ct. 1022 (1983).

V.

OBJECTIONS TO ASSURED DELIVERY PROVISIONS

A. SECTION 9(i)(3) PRIORITY

The Proposed Long Term Intertie Access Policy violates § 9(i)(3) of the Northwest Power Act and also amounts to an improper illegal "de facto" change in the Interpretive Rule, for the following reasons:

1. Under the Northwest Power Act and the Interpretive Rule, once a resource qualifies for the § 9(i)(3) Priority, the

"regionality" of the utility owning the resource is irrelevant.

2. Colstrip Unit 4 was specifically acknowledged in the legislative history of the Northwest Power Act as a plant "under construction" and, therefore, Congress contemplated that it was eligible to receive the § 9(i)(3) Priority.

3. BPA's Interpretive Rule rejects the concept that the § 9(i)(3) Priority depended on the regionality of the utility owning the resource.

4. BPA committed to provide 100% of Colstrip Unit 4 with marketing services pursuant to § 9(i)(3).

5. Colstrip Unit 4 is a regional resource. It was offered to BPA to serve its loads, and was constructed to meet regional loads.

6. It is arbitrary and capricious for BPA to determine regionality of a resource based on the owning utility's regionality. It is especially so when "regionality" is determined based on present circumstances.

7. The § 9(i)(3) Priority is not to be subordinated to other policies.

8. BPA has not established findings of impracticability to justify its denial of services for the marketing of Colstrip Unit 4, all of which qualifies for the § 9(i)(3) Priority.

9. BPA has negated the § 9(i)(3) Priority as it relates to Intertie access.

Each of these points is now addressed.

1. "Regionality" of Utility is Irrelevant. As noted above, the Proposed Policy limits the application of the § 9(i)(3) Priority to 1/3 of Colstrip Unit 4 even though the entire plant qualifies for the § 9(i)(3) Priority. See pages 12-13, above. BPA restricts the marketing services because of the "regionality" of Montana Power: because 1/3 of the Company's present load is located in the Pacific Northwest, only 1/3 of Colstrip Unit 4 qualifies for Assured Delivery pursuant to § 9(i)(3).

This limitation conflicts with the Northwest Power Act. Section 9(i)(3) requires the Administrator to grant a priority for marketing services to assist in "the marketing, within and without the Pacific Northwest, of capability from projects under construction on the effective date of this Act." This section grants the § 9(i)(3) Priority to specific projects. There is no support for the concept that the "regionality" of the utility that owns the resource is to determine the vitality of the § 9(i)(3) Priority.

The Northwest Power Act does not distinguish between resources owned by utilities serving customers in two different regions and those resources owned by "pure" Northwest utilities. Nor does the statute contemplate a fact-finding investigation to determine whether a plant was constructed to serve regional loads. BPA in its Interpretive Rule acknowledges just the opposite. BPA, Interpretive Rule, Record of Decision at 4 (March 14, 1986). BPA

states that "Congress presumed that any such qualifying resources were constructed by its utility customer in response to forecast regional deficits." Id. Thus, once a resource meets the test of being constructed by a Pacific Northwest utility customer of BPA, all of that resource is entitled to the § 9(i)(3) Priority.

2. Colstrip Unit 4 was Specifically Recognized by Congress as Qualifying for the § 9(i)(3) Priority. Colstrip Unit 4 was one plant which Congress specifically recognized as being under construction in order to meet the Pacific Northwest region's energy needs. Although the legislative history is replete with several general references, there are also several specific references about Colstrip Unit 4.

For example, Senator Melcher in a dialogue with Governor Judge of Montana states:

> The last thing, Governor, and this I do want clear for the record, so we know exactly where we are. In the projected new generation plants in the Pacific Northwest to provide additional power for distribution by Bonneville, there are roughly 14 that I am aware of that are projected in the future, new plants coming on line. Of those 14, 2 of them are Colstrip 3 & 4.

Pacific Northwest Electric Power Planning and Conservation Act: Hearing on S. 885 before the Senate Committee on Energy and Natural Resources, 96th Cong., 1st Sess. at 68, (1979).

Later, BPA Administrator Munro informed a House Subcommittee that he was concerned about whether Colstrip Units 3 & 4 would be constructed in a timely fashion to meet their projected timetables. Pacific Northwest Electric Power Planning: Hearings on H.R. 3508 and H.R. 4159 Before the Subcommittee on Energy and Power of the House Committee on Interstate and Foreign Commerce, 96th Cong., 1st Sess. at 144-45 (1979). There are several other specific references to Colstrip Unit 4 in the legislative history. They need not be repeated here.

The plants that are mentioned in the legislative history were not haphazardly chosen. The plants originally had been planned to be the non-Federal utilities' contribution to the Hydro-Thermal Program (Phase II) which had been developed, prior to the Northwest Power Act, as a way to meet regional needs. (See pages 35-37, below). Section 9(i)(3) was meant to assist in the marketing all of the output of these plants in the event that BPA did not acquire their output pursuant to § 6(c) of the Northwest Power Act.

3. The Interpretive Rule Also Rejects the Concept of Regionality. BPA recognized the intent of § 9(i)(3) to assist in the marketing of Colstrip Unit 4 when it adopted its Interpretive Rule in response to an offer to purchase that resource. The Interpretive Rule incorporated the concept, explicit in the Northwest Power Act, that all of a resource, such as Colstrip Unit

4, qualifies for the § 9(i)(3) Priority regardless of the "regionality" of the utility which owns the resource.

The Interpretive Rule, in addressing the "Qualification for the section 9(i)(3) Priority," states:

> Project capability qualifies for the section 9(i)(3) priority if it is from a project:
>
> (1) of a Pacific Northwest utility customer of BPA;
>
> (2) located within or without the Pacific Northwest; and
>
> (3) under construction by a Pacific Northwest utility customer on December 5, 1980 . . . .

Interpretive Rule II.B.1.a (emphasis added). The Interpretive Rule establishes three criteria which a resource must meet to qualify for the § 9(i)(3) Priority. Montana Power's share of Colstrip Unit 4 meets each requirement. First, it is owned by Montana Power, a Pacific Northwest customer of BPA. Second, the project is located outside the Pacific Northwest. Third, Colstrip Unit 4 was under construction on December 5, 1980.

BPA stated its belief that projects meeting the above qualifications are eligible for the § 9(i)(3) Priority because "Congress presumed that any such qualifying resources were constructed by its utility customer in response to forecast regional deficits." Interpretive Rule, Record of Decision at 4, supra. Therefore, BPA found it unnecessary to conduct a

fact-finding investigation to determine "regionality" of the specific resource -- the entire resource qualifies. Id.

BPA, in developing its Interpretive Rule, noted the complex inquiry that would be required to determine regionality. During the development of the Interpretive Rule various commentators suggested "that only extraregional resources which were planned and constructed in response to forecast Northwest deficits should be eligible for the section 9(i)(3) priority." Interpretive Rule, Record of Decision at 3, supra. BPA rejected the proposal that "regionality" be used to determine eligibility for the § 9(i)(3) priority. It rejected the concept, in part, because:

> A limitation on the eligibility of extraregional resources on the basis of whether the resource was planned and constructed in response to regional deficits would be difficult to implement . . . . a case-by-case determination would involve a difficult BPA judgment as to the past intentions of its utility customers. In order to make this determination, BPA believes it would have to review the customer's internal records and memoranda and possibly even interview utility officers to discern the reasons why the customer was constructing a project at the time the Act passed.

Interpretive Rule, Record of Decision at 4, supra.

Contrary to its Interpretive Rule, BPA now refuses to provide transmission services for, what it considers, the "extraregional" share of Colstrip Unit 4, even though it has acknowledged a Congressional presumption that the plant was constructed to meet

regional needs. In doing so, BPA has violated its own Interpretive Rule[5].

4. BPA Committed to Provide All of Colstrip Unit 4 with Marketing Services. BPA's letter to Montana Power by which it rejected the Company's offer to sell Colstrip Unit 4 to BPA, reads, in part:

> By letter dated March 6, 1985, The Montana Power Company (Montana Power) offered to sell 100 percent of its share of the capability of Colstrip #4 (Share) to the Bonneville Power Administration (BPA). BPA has determined that Montana Power's Share was offered to BPA in accordance with the terms of section 9(i)(3) of the Northwest Power Act. BPA's analysis of this offer has indicated, however, that it is not in BPA's best interests to acquire Montana Power's Share at this time. To the extent practicable, BPA will provide Montana Power's Share the section 9(i)(3) priority to marketing services made available by BPA.

Letter, Johnson (BPA) to Schmechel (MPC) (March 7, 1986) (emphasis added).

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5 The Company notes that BPA, in developing its Interpretive Rule, recognized the possibility that individual policies, such as the Near Term Intertie Access Policy, could limit the availability of a marketing service to extraregional resources. Interpretive Rule, Record of Decision at 4, supra. However, it is inappropriate to subordinate the § 9(i)(3) Priority to the "regionality" concept. Moreover, such a statement conflicts with the Interpretive Rule, which reflects BPA's determination that qualifying resources were presumed to be regional and that therefore there would be no "fact-finding" to determine regionality. Simply stated, qualifying facilities under the Interpretive Rule are not "extraregional" resources. It is also in conflict with the Administrator's commitment to provide marketing services for all of Colstrip Unit 4. Moreover, the Proposed Policy, to the

This letter explicitly recognizes that Montana Power's entitlement to the § 9(i)(3) Priority for 100 percent of its share of Colstrip Unit 4 is not limited by the concept of regionality. Clearly, when BPA rejected the offer to purchase Colstrip Unit 4, it believed that under the Northwest Power Act and its Interpretive Rule, 100 percent of Montana Power's share of Colstrip Unit 4 qualified for the § 9(i)(3) Priority. Therefore, BPA granted Montana Power "a priority to an available service should BPA receive competing requests for the service and the total requests for such service exceed the amount of services available." Id., see Interpretive Rule § II.B.2.

Nevertheless, in the Proposed Policy, contrary not only to the Northwest Power Act and BPA's Interpretive Rule, but also to BPA's express commitment to Montana Power, transmission services are not provided to assist in the marketing of 100 percent of the output from Colstrip Unit 4, but to only a small portion of the resource. BPA has provided no rational explanation for its conclusion that a priority which attaches to 100 percent of a resource may be applied in a manner so that only 1/3 of the resource receives assistance.

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extent it relies on "regionality," must conduct an in-depth investigation which BPA acknowledged is required to determine "regionality."

5. Colstrip Unit 4 is Regional. Assuming the erroneous premise that regionality is an appropriate standard for determining access to the Intertie, it is arbitrary and capricious for BPA to rule that only a portion of Montana Power's share of Colstrip Unit 4 is a "regional" resource. First, all of Montana Power's share of Colstrip Unit 4 was offered to BPA as a regional resource pursuant to § 6(c) of the Northwest Power Act. See page 6 above. In that sense, Colstrip Unit 4 is a true regional resource -- offered to BPA to serve BPA's regional load. BPA has acknowledged that Congress contemplated that § 9(i)(3) resources were those that were to be offered by BPA to meet Northwest power requirements. Interpretive Rule, Record of Decision at 4, supra.

The real test, if any, which should be used by BPA in the Proposed Policy to establish "regionality" is what amount of the resource was offered to BPA to serve regional needs. This test was recognized by Administrator Johnson when he acknowledged that Montana Power's offer of all of Montana Power's share of Colstrip Unit 4 was "in accordance with the terms of section 9(i)(3) of the Northwest Power Act," and when he committed to provide marketing services for Montana Power's 100 percent share of Colstrip Unit 4. Letter, Johnson (BPA) to Schmechel (MPC), March 7, 1986, supra.

Second, Colstrip Unit 4 was an integral part of Montana Power's total resource plan to serve loads located in the Pacific Northwest. As part of the licensing process for Colstrip Unit 4,

the Company included a forecast which showed that when Colstrip Unit 4 was originally planned to become operational, the Anaconda Company was expected to be using 230 megawatts of peak and 205 megawatts of energy at it mining and smelting operations. This load justified Colstrip Unit 4. See Prefiled Direct Testimony of Donald B. Gregg at 12-13, (Montana Public Service Commission Docket 83.9.67). The Anaconda Company mine was at Butte, and its smelter was at Anaconda, both located in the Pacific Northwest. The disappearance of that load is responsible for Montana Power's present surplus. There is no real dispute that as originally planned, Colstrip Unit 4 would have served loads in the Pacific Northwest. The entire resource was available to meet regional requirements. It is improper to exclude a major portion of that resource merely because Montana Power's system as a whole also served other loads.

Third, Colstrip Unit 4 was conceived as part of the hydro-thermal program designed to meet regional needs. This program has been explained as follows:

> Until 1970, the region relied almost entirely on hydroelectric generation. In the late 1960's the utility industry foresaw the end of major additional hydropower resources and began to build thermal power plants under what was known as the "hydro-thermal program." This involved construction of plants by the utilities and coordinated management of the federal and non-federal power supplies through pooling arrangements.
>
> The utility systems wanted to devise a system which would provide the future power needs of

> the region on as economical a basis as possible. The industry believed that energy could be provided most economically by very large generating units operating on base-load. Shaping this energy to load and providing peak at lowest cost was a natural function of the hydro system. Thus, a full use of the Federal hydroelectric plants and the coordinated non-Federal hydro plants would provide management of the power generated by such base-load stations and provide reserves to protect the integrity of the system. The utility system would build thermal base-load plants, not the Federal Government, with the plants to be jointly owned or with joint participation by many different entities (public and private) in the same plants. This is the Hydro-Thermal Program, a concept of pooling: Power from base-load plants pooled among the owners, and a further pooling of such power with Bonneville.

Pacific Northwest Electric Power Supply and Conservation Act: Hearings on S. 2080 and Amendment 848 before the Senate Committee on Energy and Natural Resources, 95th Cong. 2nd Sess. 41-42 (1978) (Statement of Sen. Jackson).

During the formulation of Phase-2 of the Hydro-Thermal program (and subsequent modifications), Colstrip Unit 4 was an integral part of it. See, e.g., BPA, Revised Draft Environmental Impact Statement, "The Role of the Bonneville Power Administration in the Pacific Northwest Power Supply System," Table IV-3 at p. IV-26, (April 1980) Attachment 3; Pacific Northwest River Basin Commission, Power Planning Committee, "Review of Power Planning in the Pacific Northwest Calendar Year 1976" at 24 (May 1977).

As discussed above, page 29, Congress contemplated that the plants which were part of the Hydro-Thermal Program, including Colstrip Unit 4, would receive the § 9(i)(3) Priority. The Hydro-Thermal Program, including Colstrip Unit 4, was the impetus for the Transmission System Act. That Act "was intended to free BPA from the uncertainties of the appropriations process (though Congress retained considerable authority to disapprove any element of the BPA program) and to allow BPA to construct transmission additions on a timetable compatible with that of the thermal plants [being constructed as part of the hydro-thermal program]." H.R. Rep. 976, reprinted in 1980 U.S. Code Cong. & Ad. News 5989, 6027.

The "regionality" of Colstrip Unit 4 was also apparent when, pursuant to the Transmission System Act, BPA agreed to construct interregional 500 kV facilities which would connect with two 500 kV lines which transmitted power from the Colstrip Project (consisting of Colstrip Units 3 & 4). BPA included all of Colstrip Units 3 and 4 as justification for Congressional approval of the transmission lines. BPA informed Congress:

> However, we may request congressional authorization to supplement our proposed FY 1979 construction program to provide for construction of 500-kV transmission and substation facilities extending from BPA's Main Grid to interconnect with two 500 kV lines proposed to be built by the Montana Power Company to transmit the output from the Colstrip generating units located in eastern Montana to load centers in the Pacific Northwest.

Administrator Munro's Prepared Presentation, Hearings before the Subcommittee on Public Works, House Committee on Appropriations, 95th Cong., 2d Sess. (March 15, 1978) (emphasis added).

Congress specifically authorized the transmission facilities in H.R. 12928[6]. The Senate Committee Report shows that all of the output of Colstrip Units 3 & 4 was to be transmitted over BPA's transmission grid.

> The Committee's recommendations and the accompanying bill provide for the construction of 500 kilovolt transmission and substation facilities extending from BPA's main grid to interconnect with two 500 kilovolt lines proposed to be built by the Montana Power Company to transmit output from two 700 megawatt generating stations in the Colstrip project located in eastern Montana to load centers in the Pacific Northwest.

S. Rep. No. 1069, 95th Cong., 2d Sess. 52 (1978) (emphasis added).

Montana Power has cooperated fully and completely in the development and implementation of regional energy programs, and specifically in the development of Colstrip Unit 4 as a regional resource. The Company, from a philosophical viewpoint, has always considered itself as part of the region. Former Chairman of the Board of Montana Power, Joseph McElwain testified during the

6 H.R. 12928 was vetoed by President Carter. 124 Cong. Rec. H.11599. However, P.L. 95-482, passed by Congress on October 18, 1978, incorporated the previous authorization. See H.J. Res. 1139 § 101(b), 95th Cong., 2d Sess. 1, reprinted in 1978 U.S. Code Cong. & Ad. News, 92 Stat. 1603.

hearings on the Northwest Power Act that "we must all recognize that the reliability of the power supply in Montana is, to a very large degree, affected by the reliability and availability of power supplies in the Pacific Northwest in general." Pacific Northwest Electric Power Supply and Conservation: Hearings on H.R. 9020, H.R. 9664 and H.R. 5862 Before the Subcommittee on Water and Power Resources of the House Committee on Interior and Insular Affairs; Part I," 95th Cong., 1st Sess. at 190.

Given the clear regionality of both Colstrip Units 3 & 4, the "regionality" of Montana Power's total load is irrelevant to the question now before BPA[7].

7 Moreover, Congress has recognized that it is inappropriate and unworkable to apply strict "regionality" concepts to a utility such as Montana Power which serves loads both in the Pacific Northwest and in areas outside, but contiguous to the Pacific Northwest. For example, the Preference Act provides that "[d]eliveries by a non-Federal utility from its generating plants in the Pacific Northwest for use on its own distribution system in an area outside but contiguous to the Pacific Northwest . . . shall not be deemed deliveries by such utility for use outside the Pacific Northwest." Preference Act § 3, 16 U.S.C. 837b. The legislative history explains that this provision is to allow the continued operation of contiguous distribution systems in an integral fashion. H.R. Rep. No. 590, reprinted in 1964 U.S. Code Cong. & Ad. News 3342, 3247.

The Northwest Power Act provides that benefits of the Residential Exchange Program, rather than being restricted to just regional customers, for a "State which lies partially within and partially without the region may require that such cost benefits be distributed among all of the utility's residential loads in that State." Northwest Power Act § 5(c)(3); 16 U.S.C. § 839c(c)(3). Congress clearly recognizes that accommodation must be made for utilities

6. BPA Determination of Regionality is Arbitrary and Capricious. BPA has determined that only 1/3 of Colstrip Unit 4 is regional based on the regional load of the entire utility rather than on the basis of the specific resource. This application of § 9(i)(3) is arbitrary. Section 9(i)(3) is clearly focused on the characteristics of specific resources and not the characteristics of the utility which happens to own them. If BPA's logic were applied consistently, a resource located within the region would not be regional if its owning utility served substantial loads outside the region.

BPA's approach ignores the Congressional presumption that Colstrip Unit 4 was constructed to serve regional needs (see pages 27-28, above) the fact that Colstrip Unit 4 was planned to meet regional loads including that of the Anaconda Company's 230 megawatt load (see pages 34-35, above), and its role in the Hydro-Thermal Program (see pages 35-37, above).

Moreover, the appropriate time frame to determine regionality, if it must be determined, is when the plant was originally planned. It is inappropriate to use present circumstances to determine the

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serving loads both within and without the region. This accommodation is surely called for when evaluating the regionality of plants which Congress presumed were constructed to meet regional needs.

regionality of a plant planned in the early 1970's. Section 9(i)(3) was meant to provide to the utilities which had plants under construction some protection against changing circumstances produced by the implementation of the Northwest Power Act. If BPA's logic for determining "regionality" were extended to other Northwest utilities, under present circumstances, no other utility's average firm surplus could be said to be regional. The fact that it is being marketed out of the region obviously means that it is not serving the region.

Obviously, as BPA has acknowledged, to attempt to determine regionality of a specific resource would require an in-depth analysis (see page 31, above). But, rather than attempt to accurately establish the regionality of a resource, the Proposed Policy improperly uses a very crude and arbitrary measurement: the regionality of the utility, which itself may bear no relation to the regionality of the specific resource. BPA's present approach also ignores that present circumstances of a utility might show a resource to be less regional than it was really planned to be. This is clearly the case with Colstrip Unit 4.

7. § 9(i)(3) Priority Has Been Improperly Subordinated to other Policies. The Interpretive Rule states that "Section 9(i)(3) implicitly recognizes that the type and amount of services BPA provides are separate questions to be addressed in other BPA policies." Interpretive Rule II.B.2. As the Proposed Policy

shows, BPA is using that provision to illegally restrict the amount of services granted a resource pursuant to § 9(i)(3).

The Proposed Policy continues the practice (first incorporated in the Near Term Intertie Access Policy, which was developed without regard to § 9(i)(3)) of basing the amount of Assured Delivery upon the "regionality" of utilities. The greater the proportion of a utility's load located in the Pacific Northwest Region, proportionately, the more Assured Delivery that utility will be granted.

It is inappropriate to subordinate the § 9(i)(3) Priority to policies which were developed without regard to that priority. By doing so in the Proposed Policy, BPA has effectively destroyed the § 9(i)(3) Priority to which Colstrip Unit 4 is statutorily entitled.

Congress did not contemplate such a result. Section 9(i)(3) requires the Administrator to provide the priority with necessary services "to the extent practicable." BPA has offered no support for the conclusion that providing the statutory § 9(i)(3) Priority to all of Montana Power's share of Colstrip Unit 4 would significantly interfere with its power marketing program. BPA has not established any substantial or reasonable necessity for its power marketing program to include a "regional" limitation on transmission services. Additionally, to the extent that policies

(such as regionality) could be properly included as part of BPA's power marketing program, they must be modified to reflect the § 9(i)(3) Priority "to the extent practicable." BPA's total subordination of the § 9(i)(3) Priority to other policies developed without regard to the § 9(i)(3) Priority fails to comply with its statutory directive and effectively destroys the priority. Precisely that has been done in this case. BPA is in the difficult position of having to justify or explain why, although all of Colstrip Unit 4 qualifies for a § 9(i)(3) Priority, only 1/3 of it receives the required services.

Section 9(i)(3) created a real priority; BPA must not implement policies which render that priority illusory.

8. BPA Has Made No Finding of Impracticability. Under § 9(i)(3) of the Northwest Power Act, as well as the Interpretive Rule, BPA must give Colstrip Unit 4 a priority to marketing services "to the extent practicable."

"Practicable" means "possible to practice or perform: capable of being put into practice, done or accomplished." Webster's Third New International Dictionary. It is now practicable to provide Montana Power marketing services for its 210 megawatts from Colstrip Unit 4. BPA refuses to do so. There is no substantial reason to justify BPA's refusal to provide Intertie access pursuant to § 9(i)(3).

BPA is allocating about 3800 megawatts of Intertie capability; 2570 megawatts are allocated to Assured Delivery -- 1656 megawatts for BPA and 914 megawatts for other utilities. See Letter, Jones (BPA) to Labrie (MPC), October 31, 1986, Attachment 1. Thus, entirely apart from BPA's own stated requirements, BPA has recognized that over 900 megawatts of Assured Delivery can be provided to others. It is thus plainly not impracticable to provide 210 megawatts of Assured Delivery for Colstrip Unit 4.

BPA may be concerned about the number of resources qualifying for a § 9(i)(3) Priority. Today, however, Montana Power is the only utility which has perfected its § 9(i)(3) Priority. It is inappropriate for BPA to deny assistance to Montana Power based upon speculation about the future, when today it is practicable to assist in marketing Colstrip Unit 4 power. Future requests should be evaluated in context of the circumstances existing when, if ever, those requests are made[8].

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8 As stated above, only a limited number of resources could qualify for § 9(i)(3) Priority even if they were offered to BPA. As of this date, aside from Colstrip Unit 4, no other resources have been offered to BPA and granted a § 9(i)(3) Priority. BPA has no basis for concluding that they are likely to be so. BPA should, at the very least, list (1) the specific projects which it believes are likely to qualify for the § 9(i)(3) resource, (2) the amount of such resources, (3) the likelihood that they will be offered, and (4) the need for those resources to have Intertie access. Under the Proposed Policy, Assured Delivery will be provided for 100% of the § 9(i)(3) resources of "pure" Northwest utilities. The only additional exposure to BPA would be the small incremental

It is especially crucial not to prejudge the future "practicability" of Intertie access for § 9(i)(3) resources. First, as the Proposed Policy recognizes, the Intertie capacity is planned to be significantly enlarged in the near future. It is expected to have a capacity of 7900 megawatts (compared to present capability of 4800 megawatts). See, e.g., Proposed Policy § A.13. Second, of course, the resource/load balance in the Pacific Northwest is in a state of flux, and BPA cannot predict with certainty the situation down the road.

Finally, if BPA is concerned about the potential amount of § 9(i)(3) resources, it must explain and realistically evaluate its perceived exposure. Company officials, for example, have been informed that BPA is concerned that Canadian resources could obtain a § 9(i)(3) Priority, creating further demand for Intertie access. This fear is unfounded. The legislative history of the Northwest Power Act identifies plants that Congress contemplated would qualify for the § 9(i)(3) Priority, and the Interpretive Rule restricts the Priority to resources owned by a Pacific Northwest customer. Moreover, the Ninth Circuit made clear that Canadian utilities have no preference (except for treaty power) to receive

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amount of "extraregional resources" owned by utilities serving both regional and extraregional loads.

transmission access to the Intertie. See Department of Water & Power v. BPA, 759 F.2d 684, 694 (9th Cir. 1985).

9. The Proposed Policy Provides No Priority. Under the Interpretive Rule, "[p]roject capability which qualifies for the section 9(i)(3) priority shall have a priority, in the event there are competing requests, to BPA marketing services, including transmission, storage, and load factoring, at established rates or charges, which BPA is making available to other Pacific Northwest utility customers under policies or programs for which the project capability otherwise qualifies." Interpretive Rule § II.B.2 (emphasis added).

A priority is "any preferential rating assigning rights to scarce products or materials, limited services, transportation, or surplus property or prescribing the order in which assignments are to be attended to." Webster's Third New International Dictionary. It is this definition of "priority" which BPA uses to govern its allocation of preference power when certain customers have a "priority." See Interpretive Rule, Record of Decision at 6, supra. Applying this plain meaning of the word "priority" in the Proposed Policy, BPA, in accordance with its Interpretive Rule, should have granted Montana Power's share of Colstrip Unit 4 Assured Delivery over the Intertie. BPA explains the § 9(i)(3) Priority as follows:

> Under section 9(i)(3), if BPA receives competing requests which qualify for a marketing service, and BPA is unable to

> satisfy all requests, the request from a utility with a section 9(i)(3) priority will be granted.

Interpretive Rule, Record of Decision at 6, supra. This same concept was stated by BPA Administrator Johnson in his letter to Montana Power. See pages 32-33, above.

Despite this clear intent behind the creation of the § 9(i)(3) Priority, previously recognized by BPA, the priority is ignored in the Proposed Long Term Intertie Access Policy. As pointed out above, BPA, by improperly limiting the § 9(i)(3) Priority by the concept of regionality, coupled with its view that the § 9(i)(3) Priority may not be added to the amount of Assured Delivery to which a utility would be entitled in any event, has arbitrarily rendered Montana Power's § 9(i)(3) "Priority" for Colstrip Unit 4 meaningless.

BPA could easily have provided Intertie access to assist in the marketing of the 210 megawatts of the Company's share of Colstrip Unit 4. The fact that it is making a total of 2570 (including 1656 megawatts for BPA) megawatts of Assured Delivery available pursuant to Exhibit B of the Near-Term Policy (See Letter, Jones (BPA) to Labrie (MPC), October 31, 1986, Attachment 1), demonstrates that BPA could easily provide a priority for the 210 megawatts of Colstrip Unit 4.

The Intertie Access Policy denies this common-sense meaning of "priority," and departs from BPA's acknowledged definition. Rather than establish up-front access to the Intertie for § 9(i)(3) resources, these resources are melded with, and treated like, any other resources of a utility to develop an "average firm surplus" for each utility. Thus, a § 9(i)(3) Priority resource is improperly treated exactly like any other resource.

B. ASSURED DELIVERY PROVISIONS ARE DISCRIMINATORY AND UNFAIR TO MONTANA

Under the Intertie Access Policy, Assured Delivery is being provided for a utility's "average firm surplus." Montana Power's Assured Delivery is further limited, however, to its "regional" share of its "average firm surplus." See pages 10-12, above. Accordingly, BPA is providing 1/3 of Montana Power's "average firm surplus" with Assured Delivery, because it considers 2/3 of the Company's "average firm surplus" to be extraregional. Thus, BPA is treating Montana Power differently than utilities which serve loads entirely in the Pacific Northwest.

This provision violates the Transmission System Act which explicitly requires that BPA make available excess capacity in the federal transmission system on a "fair and nondiscriminatory basis." The Ninth Circuit has summarized the requirements related to Intertie capacity imposed upon BPA by the Bonneville Project

Act, the Power Preference Act, the Transmission System Act and the Northwest Power Act. It states:

> Those four statues show repeated Congressional insistence that BPA have preference in using Intertie capacity and that, so long as the agency is fair and nondiscriminatory, BPA have the discretion to allocate remaining transmission capacity.

Dept. of Water & Power v. BPA, 759 F.2d 684, 693 (9th Cir. 1985). BPA is discriminating against Montana Power and treating the Company unfairly because it serves loads both in and out of the Pacific Northwest region.

There is no rational basis for this discrimination. Montana Power is a Pacific Northwest customer of BPA and a scheduling utility and member of the Northwest Power Pool. The Company must not be treated unfairly when it comes to Intertie access because its serves loads outside the region. Each utility, including Montana Power, pays for its use of the Federal transmission system. Each utility, including Montana Power, paid the federal taxes used to fund the Intertie.

Even assuming that BPA may differentiate between utilities when allocating Intertie access, it is inappropriate to make a distinction based on "regionality," a concept which is inapplicable to Intertie transmission. This concept of "regionality" was undoubtedly developed to satisfy the Preference Act's prohibition against the sale of power, except in certain conditions, outside

the Pacific Northwest region. Also, the "regionality" concept may be necessary under provisions of the Northwest Power Act relating to loads that may be placed upon BPA. No statute, however, supports the concept that BPA, in affording transmission services, may treat Montana Power, or any other utility, in an unfair and discriminatory manner because the utility serves not just the Pacific Northwest, but contiguous areas adjacent to the region. As noted previously, Congress recognizes that even when "regionality" is an appropriate standard, it is necessary to stretch that concept for utilities serving loads both in the Pacific Northwest and contiguous areas. See Footnote 7, above.

It is particularly irrational to discriminate against Montana Power because of BPA's supposition about the "regionality" of Colstrip Unit 4. As established in the discussion concerning § 9(i)(3), Colstrip Unit 4 is very much a regional resource. Congress presumed it was constructed to meet regional loads. It was planned to serve regional loads and was part of the Hydro-Thermal Program.

VI.

OBJECTION TO FORMULA ALLOCATIONS

As noted above, the Proposed Policy allocates available Intertie capacity on a nonfirm basis according to one of three formulae, depending upon existing conditions. See pages 14-15, above.

A. SECTION 9(i)(3) PRIORITY

The Proposed Policy provides no recognition of Montana Power's § 9(i)(3) Priority. The availability of nonfirm Intertie capacity is important in the successful marketing of Colstrip Unit 4 power. The Proposed Policy should provide that nonfirm Intertie capacity will be granted to Montana Power's 210 megawatts of Colstrip Unit 4, reduced by any amount of Colstrip Unit 4 power being transmitted under the Assured Delivery provisions.

B. CONDITION 1 ALLOCATION

BPA uses a formula allocation method for allocating the nonfirm capability of the Intertie during Condition 1 periods. Condition 1 exists when the Exportable Agreement is in effect. Once the Exportable Agreement terminates on December 31, 1988, Condition 1 "will be in effect when the Federal system is in spill or in likelihood of spill, as determined by BPA." Proposed Policy § F.2.a.

Under Condition 1, a "Scheduling Utility's allocation will be limited by the ratio of the Scheduling Utility's hydroelectric capacity to the total regional hydroelectric capacity multiplied by the total of all allocations." Proposed Policy § F.2.a(2). The amount of Intertie capacity that a utility has depends on the amount of its hydroelectric capability. The more hydroelectric capacity, the greater its share of Intertie, regardless of the total generation capacity of the utility. This suggests a

pre-Northwest Power Act mentality. Under the Act, BPA was given specific authority to acquire new resources, including thermal resources. No longer is BPA a pure hydroelectric system -- its resources include, for example, Hanford Generating Project, part of the Trojan Plant, and WNP-2. BPA, like most other utilities, now has a resource mix of both hydroelectric and thermal generation. The allocation method should recognize this resource mix. More properly, it should be blind to resource mix, so as to avoid improper discrimination against certain utilities.

VII.

MISCELLANEOUS CONCERNS

1. Definition of Resources. The Proposed Policy defines "Existing Pacific Northwest Resources" as the Pacific Northwest resources of Scheduling Utilities that were "operational on September 7, 1984" (Proposed Policy at § A.7.a), and also "the extraregional resources of Scheduling Utilities dedicated to Pacific Northwest load on September 7, 1984, which include pro rata portions of Montana Power Company's and Pacific Power and Light Company's share of Colstrip Unit 4 . . . . (Proposed Policy at § A.7.b).

The definition seems to imply that the location of a resource determines its status. That is not the case. The degree to which a resource qualifies for Assured Delivery is determined by the "regionality" of the utility which owns the resource. If BPA

insists upon using the "regionality" of the utility as the determining factor for the granting of Intertie access, it should note explicitly that the location of a resource is irrelevant, and that whether resources are "Pacific Northwest Resources" is determined by the "regionality" of the utilities which own them. We believe the entire "regionality" concept to be in error.

2. Qualification of Resources. In addition to the regionality of the utility which owns the resource, access to the Intertie is restricted to resources which were either operational by, or dedicated to the region on, September 7, 1984. Proposed Policy § A.7.c. This is the date when the (Interim) Intertie Access Policy was issued. BPA has offered no rational explanation for the selection of this date, nor has it explained why there is a date at all.

BPA may be attempting to discourage the construction of new resources by not providing Intertie access for them. However, the Proposed Policy should recognize that resources which were not operational by September 7, 1984 could have been planned years before and that construction could actually have commenced long before that date.

Presumbably, BPA believes that utilities should be relying on the regional surplus to meet their needs rather than constructing their own resources. However, this provision constitutes illegal

discrimination against utilities because of "their independent development of resources," in violation of § 9(d) of the Northwest Power Act.

3. New Hydroelectric Plant. BPA restricts Intertie Access for "New Hydroelectric Plants." The Proposed Policy defines such plants as "any non-Federal hydroelectric power producing facility within the Columbia River Basin that becomes operational on or after September 7, 1984." Proposed Policy § A.10. We do not believe that any restriction on Intertie use should result from the type of resource or its date of operation. If BPA is going to continue to restrict access for such resources, it should clarify that refurbishing the facilities, the addition of new capacity, and the reconstruction of existing hydroelectric projects do not create "new hydroelectric plants."

4. Qualified Extraregional Resources. Section 13.6 of the Proposed Policy should clarify that Qualified Extraregional Resources means, after the Intertie is rated at 7900 MW, all resources located outside of the Pacific Northwest "which are owned by Northwest Utilities," if such is BPA's intention. As presently drafted, this provision includes all resources located outside the Pacific Northwest, regardless of ownership, as qualifying for Intertie access. Proposed Policy § A.13.

5. Date of Interpretive Rule on § 9(i)(3). The Proposed Policy in § A.16 states that BPA's "Legal Interpretation of Section 9(i)(3)" was issued March 3, 1986. The date should be corrected to read March 7, 1986.

6. Operation in Compliance with Applicable Licenses, Permits, Federal and State Laws. The Proposed Policy states that BPA will provide Intertie access only if doing so does not allow the operation of "Qualified Pacific Northwest Resources" in a manner not in compliance with applicable licenses, permits, or other provisions of state or Federal law. Proposed Policy § C.3.c(2). BPA should explain its legal authority to enforce compliance with all federal and state laws. It is doubtful that BPA has such enforcement powers.

7. BPA's Reservation. The Proposed Policy in § D.1 states that BPA will reserve for its own use sufficient Intertie Capacity to "transmit the full amount of BPA's surplus firm power." BPA should establish the amount of that reservation.

8. Exhibit B. The heart of the "Assured Delivery" provision is Exhibit B, discussed in § E.1 of the Proposed Policy. The Proposed Policy does not discuss how Exhibit B is derived. BPA should explain Exhibit B in detail, its derivation and also how it incorporates various provisions of the Proposed Policy. For example, if it is to correctly reflect BPA's proposed approach

(with which we disagree), the Proposed Policy should acknowledge explicitly that Exhibit B only includes the "regional" average firm surplus of a utility serving loads both within and without the region. The Proposed Policy should also establish how "regionality" is determined for the purposes of Exhibit B.

9. § 9(i)(3) Priority Resources. As stated above, we believe that BPA should provide assistance to all of a § 9(i)(3) resource. However, if BPA adheres to its proposed approach, it should clarify § E.6 to explain how it determines "regional share of section 9(i)(3) Priority Resource." BPA should also explain the basis for its view that the amount of § 9(i)(3) Priority granted Assured Delivery is not additive to Exhibit B and instead will be granted only if the amount of the § 9(i)(3) Priority exceeds Exhibit B.

10. Power Sales Contract. BPA, in order to determine whether a contract calls for a firm power sale, will examine whether the contract specifies resources from which the power is to be delivered, the price and terms for delivery. Proposed Policy § E.2.b(2)(a). Furthermore, § E.8.a requires that a "conformed copy of the executed contract" be submitted to the Administrator. The Administrator will determine whether he will provide Assured Delivery within 60 days. Proposed Policy at 8.a(1). This provision gives BPA an unfair advantage in marketing its power because its contracts are not subject to such scrutiny. This section is unworkable for a

utility which is attempting to arrange a quick short term but firm contract. BPA could perhaps provide a standardized form so that utilities can enter into quickly arranged short term firm power sales. Unless the Proposed Policy is changed, non-Federal utilities cannot effectively compete with BPA.

Also, BPA should allow a utility to use its "Assured Delivery" amount established by Exhibit B to make nonfirm sales or short term sales, until it has secured a long term contract. The utility could use this "Assured Delivery" amount for short term firm contracts without receiving prior BPA approval. This provision would not interfere with BPA's power marketing program because BPA is already committed to providing that amount of transmission to a utility.

Secondly, there should be methods other than the submittal of an executed contract by which BPA can determine "firmness" of a sale. In this age of competition, it is unnecessary for BPA to see all of the contractual details, many of which contain proprietary and confidential information.

11. Formula Allocation. BPA should incorporate into the Proposed Policy a mechanism to protect other utilities from an unfair advantage that BPA has because of its hydro shaping capability. Simply stated, BPA can use its capacity to get a

disapproportionate share of an energy allocation. The following example illustrates this point.

BPA Formula Allocation Statistics

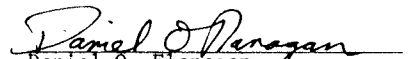
Month	Declaration (Avg. Mw)	Allocation (Avg. Mw)	Sales (Avg. Mw)
August 1986	7151	1889	1702
September 1986	6470	1548	1129
October 1986	6124	1251	806
November 1986	7330	2637	1935
December 1986	7292	2482	1623
5 Months Total	34,367	9,807	7,195

This table includes only BPA's declarations related to Formula Allocation and not BPA's sales under Assured Delivery.

BPA declared 27,172 Mw-months available for sale more than it sold, but the Northwest Power Pool indicates that only a small fraction of this energy (731 megawatts above the Energy Content Curve) is stored in Northwest reservoirs. This indicates that BPA declared over 26,000 megawatts of energy available for sale, which did not really exist. BPA was simply using its hydro shaping capability to declare more energy available for sale than really

existed. The Proposed Policy should include a provision to limit BPA's circumvention of the Formula Allocation process.

Respectfully submitted,



Daniel O. Flanagan
The Montana Power Company
40 East Broadway Street
Butte, Montana 59701
(406) 723-5421

DATED: January 16, 1987

dof0008ks

Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

OCT 31 1986

In reply refer to: P

NOV04 1986

Mr. R. J. Labrie
The Montana Power Company
40 East Broadway
Butte, MT 59701

Dear Mr. Labrie:

The Near Term Intertie Access Policy provided that Exhibit B, each scheduling utility's average firm energy surplus, would be revised from time to time. The attached table is the revised Exhibit B. This revised Exhibit B will become effective on November 8, 1986, and will remain in effect until the Long Term Intertie Access Policy is implemented, which is scheduled to be on or about July 1, 1987.

Consistent with the provisions of the Near Term Intertie Access Policy specifying that Exhibit B would be based on updates in long range planning data, this revised Exhibit B is computed based on the Pacific Northwest Utilities Conference Committee "Northwest Regional Forecast," March 1986, projections of loads and resources for operating year 1986-1987. For Montana Power Company and Pacific Power & Light Company, both having loads outside the Pacific Northwest region, their average firm energy surplus is a pro rata share of their total firm energy surplus based on the percentage of their regional load to their total load. For all utilities, the shaping provisions of the Near Term Intertie Access Policy remain in effect.

The methodology used to establish the initial Exhibit B and this revised Exhibit B does not establish a precedent for the determination of Exhibit B under the Long Term Intertie Access Policy. In fact, during the present comment period on the proposed Long Term Intertie Access Policy, Bonneville Power Administration (BPA) requests comment on alternative methodologies for formulating Exhibit B, including use of long range planning data or information filed under the Coordination Agreement, and if long range planning data are used, which data should be used.

Should you have any comments or questions concerning your revised Exhibit B, please contact Jeri Krier, Acting Manager, Transmission Policy at (503) 230-4983.

Sincerely,

James L. Jones

James L. Jones
Deputy Power Manager, Office of Power and Resources Management

cc:
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Direct Service Industries, Inc.
Lloyd Center Tower, Suite 910
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Portland, OR 97233

Mr. Ray Foleen
Non-Generating Public Utilities
921 SW. Washington Street, Suite 860
Portland, OR 97205

Mr. Merrill Schultz
Intercompany Pool
P.O. Box 3727
Spokane, WA 99220

EXHIBIT B[1/]

Utility	Average Firm Surplus[2/ 3/] 1986-87 (average MW)
Bonneville Power Administration	1,656
Seattle City Light	0
Tacoma City Light	42
Grant County PUD	37
Douglas County PUD	0
Chelan County PUD	9
Eugene Water and Electric Board	0
Cowlitz County PUD	2
Snohomish County PUD	0
Montana Power Company	79
Idaho Power Company	78
Pacific Power and Light Company	320
Portland General Electric Company	195
Puget Sound Power and Light	0
Washington Water Power Company	152

1/ The determination of the Average Firm Surplus is based on the Pacific Northwest Utilities Conference Committee "Northwest Regional Forecast," March 1986. These data are used to develop a firm load/resource balance and the average firm surplus for Scheduling Utilities in the Pacific Northwest. The Near Term Intertie Access Policy grants access for resources in operation as of September 7, 1984, the effective date of the policy. Therefore, resources in operation after that date have been excluded from the utilities' load/resource balances. For Montana Power Company and Pacific Power & Light Company, both having loads outside the Pacific Northwest region, their average firm surplus is a pro rata share of their total firm surplus based on the percentage of their regional load to their total load.

2/ Except that in no operating year may a Scheduling Utility have Assured Delivery for more energy than the amount of Average Firm Surplus shown times the number of hours in the operating year or portion of an operating year.

3/ The Average Firm Surplus for the months August through December will be the Average Firm Surplus shown times 1.8, except that in the months of November and December, when the Exportable Agreement is in effect, the Average Firm Surplus shall be the amount shown.

JKrier:dlb:10/7/86 (WP-P-0162L)
Revised 10/28/86

ATTACHMENT 2

Montana Power Company and Intertie Access Policy

Near Term Intertie Access Policy

- Under new Exhibit B, dated October 31, 1986, MPC has 79 MW of regional firm energy surplus for which MPC may obtain Assured Delivery.
- This amount may be shaped by 1.8 into the months of November and December, during times when the Exportable Agreement is not in effect.
- MPC's ability to deliver this amount and any hourly allocations under Conditions 1-3 may be limited by transmission constraints of the Taft-Bell line.

Proposed Long Term Intertie Access Policy

- MPC could obtain Assured Delivery for an amount equal to MPC's regional firm energy surplus, Exhibit B. MPC could obtain a firm transmission contract with BPA for up to 20 years for a firm power sale up to this Exhibit B amount if the sale commitment is made in the year in which the surplus exists, even if the Exhibit B amount declines over time. The shaping factor of 1.8 applies to this Exhibit B as it did under the Near Term Policy (during the months August through December, except when the Exportable Agreement is in effect in November and December).
- MPC could obtain Assured Delivery for the regional portion of a section 9(i)(3) priority resource, even if this amount is more than the Exhibit B, regional firm energy surplus. In the case of Colstrip 4, MPC's regional portion is 70 MW, or one-third of the 210 MW MPC share.
- The above provisions for Assured Delivery are not additive, MPC may receive access under one of the above at MPC's choice.
- MPC would continue to have access for hourly allocations under Conditions 1-3.

JKrier (WP-P-0195L)

ATTACHMENT 3

Table IV-3

THERMAL POWERPLANTS
February 1979

Plant	Location	Principal Sponsors 1/	Fuel	Total Capacity, MW	On-Line Date
In Operation					
Hanford Generating Plant	Hanford, WA	WPPSS	Nuclear	860	Nov 1966
Centralia No. 1 & 2	Centralia, WA	PP&L & WWP	Coal	1400	Aug 1971
Jim Bridger No. 1, 2, & 3	Rock Springs, WY	PP&L & IPCo	Coal	1500 2/	Oct 1975, Sept 1976
Colstrip No. 1 & 2	Colstrip, MT	TMPCo & PSP&L	Coal	660 2/	Nov 1975, Aug 1976
Trojan	Rainier, OR	PGE	Nuclear	1130	Dec 1975
Under Construction					
Jim Bridger No. 4 3/	Rock Springs, WY	PP&L & IPCo	Coal	500 2/	Dec 1979
WNP No. 2	Hanford, WA	WPPSS	Nuclear	1100	Sep 1981
Boardman (Carty) 3/	Boardman, OR	PGE	Coal	530 2/	Jul 1980
WNP No. 1	Hanford, WA	WPPSS	Nuclear	1250	Dec 1983
WNP No. 3	Satsop, WA	WPPSS	Nuclear	1240	Mar 1985
WNP No. 4 3/	Hanford, WA	WPPSS	Nuclear	1250	Jun 1985
WNP No. 5 3/	Satsop, WA	WPPSS	Nuclear	1240	Jun 1986
Committed					
Colstrip No. 3 & 4 3/	Colstrip, MT	TMPCo & PSP&L 4/	Coal	1400 2/	Jul 1983, May 1984
Skagit No. 1 & 2 3/	Sedro Wooley, WA	PSP&L	Nuclear	2576	Nov 1986, Nov 1988
Pebble Springs No. 1	Arlington, OR	PGE	Nuclear	1260	Apr 1986
Pebble Springs No. 2 3/	Arlington, OR	PGE	Nuclear	1260	Apr 1989

PSP&L - Puget Sound Power and Light Company
TMPCo - The Montana Power Company
WPPSS - Washington Public Power Supply System
WWP - Washington Water Power Company

1/ IPCo - Idaho Power Company
PGE - Portland General Electric Company
PP&L - Pacific Power & Light Company

2/ Not all of the output of these units is available to meet West Group Area loads. Capacity available to meet West Group Area loads from these units is as follows:

Jim Bridger No. 1, 2, & 3	1000 MW
Colstrip No. 1 & 2	330 MW
Jim Bridger No. 4	333 MW
Boardman	477 MW
Colstrip No. 3 & 4	980 MW

3/ Plants authorized or committed subsequent to Phase 1 of the Hydro-Thermal Power Program.

4/ Additional sponsors include PGE, PP&L, and WWP.

STATE OF WASHINGTON

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

1300 Evergreen Park Dr. S. • Olympia, Washington 98504-8002 • (206) 753-6423 •

January 15, 1987

Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
Box 12999--ALP
Portland, OR 97212

RE: BPA File No. TIE-1: Bonneville Power Administration Proposed Long-Term Intertie Access Policy

Dear Ms. Geiger:

We are responding to BPA's Federal Register notice (51 F.R. 39904) of November 3, 1986 requesting comments on the agency's proposed Long Term Intertie Access Policy. Our concerns relate to two areas of the proposed policy: assured delivery treatment for seasonal and capacity/energy exchanges; and the replacement of the Exportable Agreement by Condition 1. We recommend that the Administrator give serious consideration to proposals such as those advanced by the Intercompany Pool and others. These proposals would give priority to all firm sales and compensate utilities whose nonfirm sales were displaced.

(1) Assured Delivery for seasonal and capacity/energy exchanges.

a) We strongly recommend that the Administrator provide Assured Delivery from the outset for all firm sales to the South, including seasonal and capacity/energy exchanges.

Seasonal and capacity/energy exchanges are contractual arrangements that take advantage of the diverse load pattern that exists between utilities in the Northwest and the Southwest. Pacific Southwest demand for electricity peaks in summer daylight hours when load in the Pacific Northwest is low. Pacific Northwest demand peaks in winter daylight hours. This offers the utilities the opportunity to achieve more efficient use of resources by trading capacity for energy from the on-peak to the off-peak periods within a day, or from season to season.

It is extremely short-sighted of BPA to deny Assured Delivery status to exchanges on the grounds (cited in the agency issue paper) that such sales do not diminish the absolute amount of the Northwest's surplus. The goal of policies relating to the surplus should be to shape and extend the surplus, not to

eliminate it as quickly as possible. Exchanges are an important means to extend the ability of existing resources to meet load growth needs into the future. This is a desirable policy both from the perspective of the ratepayer and the environment.

b) If the Administrator does not offer Assured Delivery for seasonal and capacity/energy exchanges from the outset, we recommend that the final LTIAP specify a date on which exchanges would be granted Assured Delivery status. This should be the date on which the planned uprating of the existing transmission line is completed. A specific date providing assured delivery status for exchanges once new capacity is available on the Intertie would protect BPA while giving utilities the certainty they need to begin negotiations for exchanges at an early date. Such planning certainty is wholly absent from the provisions of the proposed LTIAP that promise Assured Delivery for exchanges at the Administrator's discretion.

(2) Replacement of the Exportable Agreement with Condition 1.

We recommend that the Administrator continue to rely on principles embodied in the Exportable Agreement to govern access to the Intertie when there are constraints on the market or on the transmission capacity available. BPA's sole rationale for abandoning the Exportable Agreement at expiration is that it is unlikely that a new agreement can be reached. However, utilities involved in the agreement have stated their support for the Exportable Agreement, as well as their support for putting essential elements of Intertie Access policy into the form of a contract representing a reliable long-term commitment from the agency. In addition, BPA's proposal to limit access under spill conditions on the Columbia River (Condition 1) to hydro surpluses may have unintended consequences for the region. Limiting the nonfirm surplus in this way may undercut BPA's position on the proper rate to charge California purchasers.

Thank you very much for your consideration of these comments.

Very truly yours,

Sharon L. Nelson
Chairman

Robert W. Bratton
Commissioner

Richard Casad
Commissioner

Public Generating Pool

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CHELAN CO PUD • COWLITZ CO PUD • DOUGLAS CO PUD • EUGENE WATER & ELECTRIC BOARD • GRANT CO PUD • SEATTLE CITY LIGHT • TACOMA CITY LIGHT

January 14, 1987

Donna L. Geiger
Public Involvement Manager
P. O. Box 12999-ALP
Portland, OR 97212

Dear Ms. Geiger:

Long Term Intertie Access Policy - SJ-L2

By letter of October 22, 1986 the Bonneville Power Administration (Bonneville) requested comments on the Intertie Development And Use Draft Environmental Impact Statement (IDU DEIS) and the proposed Long Term Intertie Access Policy (LTIAP). The purpose of this letter is to present the views and comments of the Public Generating Pool (PGP) on the proposed LTIAP.

We view this policy as one of the most important issues on the Bonneville agenda. This policy represents the framework within which all business relationships with Southwest utilities will be structured. A great number of utilities, both Northwest and Southwest, will rely on this document as a statement of the position of the Department of Energy and Bonneville regarding inter-utility cooperation for the long-term. Our comments are in two parts: 1) general and 2) specific. The comments are as follows.

I. General Comments

Although it is not as clear as it could be, the Near Term Intertie Access Policy (NTIAP) has been a satisfactory policy and has worked well for the near term. For the long term, however, the importance of Bonneville's Intertie Access Policy dictates that the policy be clear, concise and as free of ambiguity as possible. The policy must be proactive, not reactive; prescriptive, not restrictive; and self policing to the greatest extent possible. Our review of the current proposal has led to the conclusion that these criteria have not been met. A great deal of the problem lies in unclear organization of the policy document and an unfortunate selection of words in the conveying of certain principles.

We strongly suggest that Bonneville recraft the proposal based on the objectives stated above and on comments made in this letter and by others. After being notified by Bonneville, the policy can then be

reviewed in its proper context. We further suggest that this be completed and the policy circulated for review as part of a second round of comments on the organization of the policy and on specific issues that need further consideration by Bonneville and the region's utilities.

We believe that the Pacific Intertie is a regional resource to be shared by the region's utilities with Bonneville--not for use by Bonneville only, on a Bonneville-first basis. Further, Bonneville should not use access to the Intertie as a method to achieve other goals that it might not otherwise be able to achieve. None of Bonneville authorizing legislation places it in the role of a regulator. In the case of non-federal hydroelectric projects, this authority is placed with the Federal Regulatory Energy Commission (FERC). Clearly, nothing in the regional power act was intended to affect licenses issued pursuant to other federal law. 16 USC 839g(i).

Throughout 20-plus years of legislative history, Congress has required Bonneville to transmit non-federal power for its utility customers over federal Intertie facilities. Congress intended Bonneville's role to be that of a common carrier and the Pacific Intertie to be a regional resource with benefits to be shared by all Northwest utilities (16 USC§838d, 16 USC§837e). Northwest utilities at one time had a chance to buy a portion of the Intertie. There were at least seven proposals for non-federal construction. (See Statement of Charles Luce, Pacific Northwest Power Preference: Hearing Before Committee on Interim and Insular Affairs United States Senate S 1007, April 1, 1963, p. 32.) Those that at Bonneville's suggestion chose not to buy did so because they felt they would have just as good access by dealing with Bonneville instead. Based on the LTIAP and Bonneville's attempt to restrict Intertie access for its own marketing purposes and social programs, those expectations now appear to have been ill-founded.

One of the benefits from building the intertie was the economic benefits obtained in the Northwest and California from seasonal and capacity/energy exchanges. These exchanges are an excellent vehicle to reduce the need for new resources in both regions. Yet, the LTIAP does not provide assured delivery for exchanges until Bonneville is within some undefined "planning horizon of load/resource balance." This element of the policy is based solely on disadvantages of exchanges to Bonneville. Virtually no consideration was given to the benefits of exchanges for others, either in the policy, the EIS, issue papers or public discussions.

In addition, the policy as written could allow firm transactions to fill up the Intertie. It would be unfair to deny Intertie access to utilities that currently have non-firm surpluses by loading up the

Intertie with firm transactions. Once Bonneville's needs are met, the policy should place an upper limit on firm transactions and reserve a certain amount of Intertie capacity for non-firm access. This would assure an equitable split between firm and non-firm access. As it appears to us, the policy will not renew existing firm contracts for access and will limit new firm access to Exhibit B. This we support. Access for exchanges and, on a second priority basis, capacity sales should be granted (a) when and up to any upgrades of the Pacific Intertie, (b) when Bonneville enters into an exchange or capacity sale, or (c) when there is available capacity on the Intertie, whichever occurs first.

A second benefit of regional sharing of the Pacific Intertie was to avoid unnecessary duplication of transmission facilities. However, Bonneville's attempt to restrict Intertie access will logically lead over the long-run to the construction of alternative transmission facilities to serve Southwest markets. The Inland Intertie, currently being studied, is a prime example of some Northwest utilities' desire to escape the uncertainties and high cost of Bonneville's Intertie access policies.

The Inland Intertie also gives testimony to the increasing uneasiness over Bonneville's "me-first" policy, and Bonneville's emerging self-portrayal as the region's provider and benefactor, if only we'll let Bonneville have its way first. Bonneville's short-run preoccupation with protecting or enhancing its power marketing program is coming at the expense of Northwest utilities. In the long-run, this will deprive Bonneville of the very transmission revenues it is trying to protect and have detrimental effects on the Administrator's Long Term Power Marketing Program.

II. Specific Comments

Section A - Definitions

1. Section A.3.

A. Concern - Definition of "Assured Delivery" is too detailed.

B. Discussion - The definition of "Assured Delivery" includes the term "uncontrollable forces," which itself is undefined. This will create uncertainty as to what is meant. This level of detail is best left to the contract that will grant Assured Delivery.

C. Recommendation - Delete the words "as a result of uncontrollable forces of".

2. Section A.6.

A. Concern - Definition of "Existing Extraregional Resource" is too narrow.

B. Discussion - According to the Proposed LTIAP issues paper (issued via letter of October 22, 1986), Bonneville issued notice that it "...intended that the LTIAP would deny access to resources developed after September 7, 1984, that would have an adverse impact on fish and wildlife" (page 6, para. 1). In the LTIAP itself, Bonneville defines "developed after September 7, 1984," as being in operation as of that date. This poses a problem. For example, the High Ross alternative contract, which may or may not be considered an extraregional resource, was contracted for in March 1984 and operational in January 1985. If the High Ross contract were considered as an extraregional resource for the purposes of this policy, then it would fall outside the definition of Existing Extraregional Resources and would adversely impact declarations under Sections C.2., F.1. and F.2. We believe that this was not the intent of the policy and would be grossly unfair if allowed to become policy.

C. Recommendation - Amend the definition as follows "...Pacific Northwest that were under construction, operational or contracted for by September 7, 1984...."

3. Section A.7.a.

A. Concern - Definition of "Existing Pacific Northwest Resources" is too narrow.

B. Discussion - The same comment as was made in comment two applies here. For example, the Main Canal project, a hydro project in the Columbia River Basin, was committed to in May 1980, under construction in September 1984 and operational in July 1986.

Unless the definition is modified, projects such as these will be outside the definition and will have unacceptable adverse impacts on allocations for the Intertie for economy energy sales. This occurs via Section C.2. which limits allocation as follows: "The Administrator will...allocate available Intertie Capacity only for power...from...Qualified Pacific Northwest Resources...." As part of its definition, Qualified Pacific Northwest Resources relies on the

definition of Existing Pacific Northwest Resources. Thus, if a resource is not an Existing Pacific Northwest Resource, it cannot be counted in the available resources package that determines the surplus above that needed to carry firm load and hence impacts declarations under Sections F.1. and F.2.

C. Recommendation - Amend the definition as follows "...resources of Scheduling Utilities that were under construction, operational or under contract on September 7, 1984...."

4. Section A.10.

A. Concern - The definition of "New Hydroelectric Plant" is too broad.

B. Discussion - There are two concerns with the definition. First, the definition leaves in doubt the status of an existing resource that is modified. The modifications could include efficiency improvements such as generator rewinds, etc. We don't believe the intent of the definition is to construe these modifications as a New Hydroelectric Plant.

A second problem with the definition is that it ignores the fact that a resource must be committed to long in advance of its becoming operational. The commitment to build Main Canal was made well before Bonneville gave any indications that it would not grant access for resources "developed" after September 7, 1984, as outlined in the Proposed LTIAP issues paper. Again, we believe it is not the intent of the policy to limit such resources from access to the Intertie and would be unfair to do so.

C. Recommendation - To solve the first problem, amend the definition to read "...means any new non-federal...."

To solve the second problem, amend the definition as follows "...Columbia River Basin that was committed to after September 7, 1984."

The definition would then read - "New Hydroelectric Plant" means any new non-federal hydroelectric power producing facility within the Columbia River Basin that was committed to after September 7, 1984.

5. Section A.

A. Concern - There is no definition of "Declarations."

B. Discussion - Utility declarations are an important part of Section F. in determining access for economy energy. Exactly what can be included in the declarations has in the past been confusing, and has led to self-serving interpretations. This policy has the potential to make it even more confusing and continue the existing problems. To limit future arguments, misunderstandings, and liberal interpretations, a definition of Declarations should be included in the definitions section.

C. Recommendation - Include something similar to the following definition in Section A: "Declarations" means the surplus energy and hourly capacity a utility wishes to sell via the Pacific Intertie limited to the summation of its available Qualified Pacific Northwest Resources minus its Firm Load after adjustments for any firm Bonneville entitlements under the Power Sales Contracts (Firm Load minus Bonneville entitlement). For the purpose of this calculation, Qualified Pacific Northwest Resources that may be considered will be limited to:

1. all hydro resources within the definition of a Qualified Pacific Northwest Resource, and

2. for Conditions 1 and 2, all other resources within the definition of a Qualified Pacific Northwest Resource, with an incremental cost of less than 1.5 times the average price of all economy energy sales, including start up costs, that took place the scheduling period prior to the current scheduling period.

6. Section A.14.

A. Concern - The definition of "Qualified Pacific Northwest Resources" does not cover new resources that are brought on to serve new load.

B. Discussion - The Bonneville Power Sales Contract Section 5(b) states "...the Purchaser therefore agrees that it will use its best efforts either to serve its load growth using Firm Resources, or to make available for acquisition by Bonneville, ...resources equivalent to the load growth of the Purchaser which is served hereunder...."

This indicates to the PGP that a utility purchasing power under this contract is responsible to develop sufficient resources to cover their load growth. Yet, the policy via the definition of a "Qualified Pacific Northwest Resource" will allow only (for the purposes of establishing declarations):

1. "Existing Pacific Northwest Resources";

2. New regional resources to support existing downline sales, and;

3. New resources developed and dedicated to serve the utilities load or for export only after the Intertie is updated to 7900 MW, which may never happen.

This condition occurs because Section C.2. indicates that "...the Administrator...will allocate available Intertie Capacity only for...Qualified Pacific Northwest Resources...."

Utilities constructing new resources to serve their Pacific Northwest loads in response to the directions given in the Power Sales Contract should not have their declaration negatively impacted. This would be unfair.

However, the resource package that goes to make up the resource stack that will determine a Firm Resource surplus (Firm Resources - Firm Load) for the purposes of Exhibit B should be limited to "Existing Pacific Northwest Resources". New resources being built solely for export, including new "Extraregional Resources", should have to await the further increases of the Pacific Intertie to 7900 MW. To do otherwise will negatively impact non-firm sales by displacing their access to the Pacific Intertie. This displacement will impact Bonneville's revenue as well as other non-federal utilities' revenues that they have been dependent on for years coming from "Existing Pacific Northwest Resources". It would be unfair for a utility to build a new resource under current surplus conditions and market that resource to the Southwest with the result that its ratepayers benefit while the ratepayers of other Scheduling Utilities suffer rate increases as a result.

C. Recommendation - Renumber the existing Section A.14.b. to A.14.c. and modify A.14.b. to:

New Section A.14.b.: b. New regional resources of Scheduling Utilities for regional loads; and

c. New regional resources of Scheduling Utilities for export: (1) the same; (2) the same.

7. Section A.11.

A. Concern - The term "Pacific Intertie" is not used consistently throughout the text of the LTIAP.

B. Discussion - The only intertie that should be covered by the LTIAP is the Pacific Northwest-Pacific Southwest Intertie. However, there are other interties (e.g., Northern and Eastern Interties) and others that may someday be constructed. This raises the question as to whether the LTIAP might be construed to cover other interties as well.

C. Recommendation - Use the defined terms "Pacific Intertie" or "Intertie Capacity" throughout the text to avoid any confusion or misunderstanding. Avoid use of the unmodified word "intertie".

8. Section A.15.

A. Concern - The definition of Resources does not include long-term contracts as a firm resource of a utility.

B. Discussion - A number of Scheduling Utilities have within their Resource packages both electric generating plants and long-term contracts. The contract is just as much a Resource as if the utility owned it. Therefore those contracts should be included as a Resource just as they are in the Firm Resources Exhibit of the Firm Power Sales Contract.

C. Recommendation - In the definition of "Resource," insert the words "or firm contracts" after the words "electric generating plants."

9. Section A.18.

A. Concern - The term "Substantial adverse impact" is not used consistently throughout the text of the LTIAP.

B. Discussion - The crux here is the frequent omission of the word "substantial" in the text of the LTIAP where the words

"adverse impact" are used. This causes confusion as to whether Bonneville is trying to distinguish between "adverse impact" and "substantial adverse impact".

C. Recommendations - Use the defined term throughout the text.

10. Section C.3.c.1.

A. Concern - Bonneville is exceeding its authority.

B. Discussion - This section would force Bonneville to deny access to the Pacific Intertie anytime there are substantial adverse impacts on any fish and wildlife resources in the Columbia River Basin, not just those fish and wildlife related to the Administrator's expenditures mandated under the Northwest Regional Power Act and the Council's Fish and Wildlife Program. We believe that Bonneville does not have the authority to deny Intertie access based on alleged impacts to fish and wildlife resources, especially fish and wildlife resources that are not related to the Administrator's expenditures. However, the Administrator should take appropriate and necessary action with the applicable licensing or regulatory state and federal bodies to eliminate any substantial adverse impacts on fish and wildlife resources related to the Administrator's expenditures.

C. Recommendation - Section C.3.c.1. should be deleted as being inappropriate and unlawful.

11. Section C.3.c.2

A. Concern - Bonneville is exceeding its authority.

B. Discussion - We are concerned with this section on two points. First, it is inappropriate and unlawful for Bonneville to establish itself as a regulatory agency and to deny access to the Pacific Intertie for alleged non-compliance with applicable licenses, permits, or other provisions of state or federal law. Second, this section would force Bonneville to deny Intertie access for a resource that is not in compliance with any state or federal law. Bonneville is setting itself up as a regulatory body for any type of violation, and Bonneville could find itself forced to deny Intertie access for irregularities such as a turbine being too noisy. However, the Administrator should take appropriate and necessary action with the applicable licensing or regulatory state and federal bodies to

eliminate any substantial adverse impacts on fish and wildlife resources related to the Administrator's expenditures.

C. Recommendation - Section C.3.c.2. should be deleted as being inappropriate and unlawful.

12. Section C.3.c.3.

A. Concern - Bonneville is exceeding its authority.

B. Discussion - The Administrator does not have the authority to deny access to the Pacific Intertie based on alleged impacts to fish and wildlife resources. We recognize the obligations of the Administrator to protect, mitigate, and enhance fish and wildlife under the Northwest Regional Power Act and the Council's Fish and Wildlife Program. However, this obligation is misplaced by being in the policy and Bonneville is exceeding its authority as the policy is being proposed in Section C.3.c.3. The Act requires Bonneville to provide utilities with federal transmission services on a fair and non-discriminatory basis. However, the Administrator should take appropriate and necessary action with the applicable licensing or regulatory state and federal bodies to eliminate substantial adverse impacts on fish and wildlife resources related to the Administrator's expenditures.

C. Recommendation - Section C.3.c.3 should be deleted as inappropriate and unlawful.

13. Sections C.4. and C.5.

A. Concern - Defined terms should be placed in the Definitions Section.

B. Discussion - Section C.4. defines the term "Operating limitations of the Federal system," and Section C.5. defines the term "The Administrator's existing contractual obligations." Both appear out of place.

C. Recommendation - Make Sections C.4. and C.5. defined terms and put them in Section A, Definitions.

14. Section C.6.

A. Concern - That Bonneville will be persuaded to change the concept of using owned transmission first.

B. Discussion - Section C.6. indicates that owned access on any non-Bonneville transmission facility is to be used before Bonneville will grant access to the Federally owned Intertie to the Southwest. We support the concept. As we discussed in our general comments, Northwest utilities at one time had a chance to buy a portion of the Pacific Intertie. Those that chose private ownership instead of dealing with Bonneville were essentially given their allocation on the Intertie when they bought it and consequently have a better opportunity to wheel than those that did not buy in. In fact, the size of non-federal ownership far exceeds what the owner utilities would have if ownership had been sold on a pro rata basis or allocated according to today's procedures. Bonneville is therefore justified in requiring non-federally owned portions of the Pacific Intertie to be used before granting access to the federally owned portion. To do otherwise would twice advantage the owner utilities and present unfair competition to the other users.

C. Recommendation - Do not change the concept of Section C.6.

15. Section D.1.

A. Concern - It is not clear that there are limits placed on Bonneville's Intertie access for transmitting its own surplus firm power.

B. Discussion - Surplus firm is an energy number that could be spread out over several months or concentrated in one month. Bonneville could conceivably tie up 100 percent of Intertie Capacity by how it shapes its firm surplus.

C. Recommendation - The section should include the reference, "in accordance with the provisions of Exhibit B..." so that a number can be attached to how much Intertie Capacity Bonneville would reserve.

16. Section E.2.

A. Concern - None. We support this method for providing Assured Delivery for firm power contracts.

B. Discussion - Section E.2. covers Assured Delivery for firm power contracts. We find several things in this Section we support and want to acknowledge them. First, Assured Delivery is limited, as it should be, to the Scheduling Utility's average firm energy surplus as shown in Exhibit B. Second, Assured Delivery requires that certain parameters of the sale be clearly specified to ensure that the contract is not being misused as an advance arrangement to sell non-firm power. Bonneville thus has taken positive steps to avoid what can be a significant problem. Finally, Section E.2. does not automatically renew access for Scheduling Utilities' contracts listed in Exhibit C if renewal of these contracts is requested. To do otherwise would conflict with restrictions for Intertie access found in other parts of the LTIAP. Access for these contracts, if they are renewed, should be restricted to the level of Exhibit B.

C. Recommendation - Except for the fairly minor revision we are proposing in the next comment, Section E.2. should remain unchanged.

17. Section E.2.b.2.

A. Concern - Bonneville has stated that it is proposing to add language to this section to the effect that a firm power sale could have a load factor from 0 percent to 100 percent.

B. Discussion - The effect of the proposed added language is to make the amount of energy involved in the sale irrelevant. However, at 0 percent load factor, the sale is all capacity, and energy is therefore being returned to the region. We doubt that this is what Bonneville intends.

C. Recommendation - Establish in the policy a lower bound for the load factor. For example, a load factor of 6 percent could be used [e.g., 6 heavy load hour sale, 6 days a week (Monday-Saturday) for the months of July, August, and September (approximately 80 days of sale) calculates out to (6 hours/day x 80 days ÷ 8760 hours) x 100 = 5.5% L.F.].

18. Section E.3.

A. Concern No. 1 - A capacity sale is permitted Intertie access and an exchange is not.

B. Discussion No. 1 - This section allows for access to the Intertie for capacity sales and access is being denied for exchanges. We see little difference between a capacity sale and an exchange. Both types of transactions return energy back to the region. A capacity sale has by definition no energy associated with it and thus any energy delivered with the capacity must be returned. In fact, from a planning standpoint, a capacity sale is less desirable than a seasonal exchange because the energy is returned on the light load hours usually on the same day as the capacity is delivered. This return delivery will usually aggravate an already difficult light load hour problem due to non-power constraints (e.g., minimum flow requirements, thermal plants that cannot be turned off at night, etc.). With an exchange, the energy can be returned at some future time and not necessarily on light load hours.

C. Recommendation No. 1 - A capacity sale has the potential to create greater light load hour problems than an exchange and should be given lower priority on the Intertie. At a minimum, capacity sales and exchanges should receive equal priority for Intertie access.

19. Section E.3.

A. Concern No. 2 - Bonneville has stated that it is proposing to delete Section E.3.

B. Discussion No. 2 - The LTIAP should include a policy for assured delivery for capacity contracts. It is our understanding that Bonneville proposed to remove the section because the language was causing confusion over what constituted a capacity sale. Finding suitable language may be an arduous task, but it is better than ignoring capacity sales altogether. Capacity contracts (and exchanges) should be structured so that they do not become a vehicle for selling non-firm energy.

C. Recommendation No. 2 - Leave Section E.3. in the LTIAP and consider treating capacity sales as an exchange.

20. Section E.3.

A. Concern No. 3 - Capacity sales cannot be limited by Exhibit B.

B. Discussion No. 3 - The language in Section E.3. indicates that Assured Delivery for a capacity sale will be limited to the Scheduling Utility's average firm energy surplus as shown in Exhibit B. A utility can show zero energy surplus in Exhibit B and still be able to make a capacity sale because by definition all the energy associated with the capacity is returned. In other words, the numbers shown in Exhibit B are not a useful guide for dealing with capacity sales.

C. Recommendation No. 3 - We feel that Intertie access for capacity sales ought to be tied to and conditional upon upgrades of the Pacific Intertie. Moreover, the same should be the case with exchanges and new resources. Once the Intertie is upgraded (e.g., the DC Terminal Expansion Project), space on the upgraded Intertie should be allocated on a pro rata, first come-first served basis. Priorities for space should be given first to exchanges, second to capacity sales, and third to new resources. None of these should be used as a vehicle for selling non-firm energy, which can be adequately taken care of on the existing (5300 Mw) Intertie. Our only exception to these recommendations would be if Bonneville finds unused space on the existing Intertie after firm and non-firm sales have been accommodated, and that the unused space could be used for exchanges (first) and capacity sales (second) rather than waste the unused space.

21. Section E.4.

A. Concern No. 1 - Capacity/energy and seasonal exchange contracts should not be denied Intertie access.

B. Discussion No. 1 - One of the benefits from building the Pacific Intertie was the economic benefits obtained in the Northwest and California from seasonal and capacity/energy exchanges. These exchanges are an excellent vehicle to reduce the need for new resources in both regions. Yet, the LTIAP does not provide assured delivery for exchanges based solely on disadvantages of exchanges to Bonneville. This raises two concerns. First the Intertie was built to benefit the entire Pacific Northwest region, not just Bonneville. Second, Bonneville must become more far-sighted and look beyond the region's current power situation in developing an Intertie access

policy that justifies being called long-term. While Bonneville's aversion to exchanges may have some validity in the short term, long-term load/resource flexibility must be evaluated in addition to short-term revenue considerations. In addition to delaying resource construction, exchanges should benefit fish and wildlife to the extent reservoirs are not taxed as heavily during the winter months when energy would be returned to the region. Some level of certainty is therefore needed as to when exchange contracts can be consummated.

C. Recommendation No. 1 - Specify a date in the policy when exchanges will be given access (e.g., when Intertie upgrades occur, or when Bonneville determines there is unused space on the existing Intertie).

22. Section E.4.

A. Concern No. 2 - Scheduling Utilities should receive the same access to the Pacific Intertie as Bonneville receives for capacity sales and seasonal exchanges.

B. Discussion No. 2 - The provisions precluding exchanges for Scheduling Utilities should also apply to Bonneville. In the previous comment, we urged Bonneville to write into the policy a date certain when exchanges would be granted Intertie access. Alternatively, if Bonneville signs an exchange contract with a Southwest entity, then that should be a signal that the door is open for Scheduling Utilities to do likewise. In other words, what's good for Bonneville is good for the region.

C. Recommendation No. 2 - Revise E.4. to state, "...Assured Delivery will (or will not) be granted for...contracts of Scheduling Utilities and Bonneville...."

23. Section E.6.

A. Concern - Section E.6. involving 9(i)(3) Resources is too broad.

B. Discussion - PGP supports the manner in which Bonneville proposes to provide assured delivery for a Section 9(i)(3) Priority Resource. Section E.6. of the proposed policy must be, and is, consistent with Bonneville's (BPA's) March 7, 1986 Legal Interpretation of Section 9(i)(3) of the Regional Power Act to the extent that Bonneville will provide Assured Delivery for the regional

share of a 9(i)(3) resource. Bonneville's interpretation is supported by House Report 96-976 dated September 16, 1980 at page 56 which states,"...This subsection [9(i)] essentially ratifies BPA's existing policies on services, except that paragraph (3) creates a limited and contingent priority on BPA's available services for marketing of power from projects currently under construction in the region (emphasis added) should BPA decline to acquire these resources." By providing Assured Delivery to Scheduling Utilities only, the proposed policy is consistent with the Congressional intent that, "Section 9(i) sets forth additional services BPA is to provide its customers (emphasis added)...." (House Report 96-976, September 16, 1980, page 56.)

C. Recommendation - Bonneville should maintain its position. Also, in order to provide added consistency with the language of Section 9(i)(3), PGP suggests adding the following sentence to the end of Section E.6. "The Administrator shall grant such Assured Delivery to the extent practicable unless, in the Administrator's determination, such services cannot be furnished without substantial interference with the Administrator's power marketing program."

24. Section E.7.a.

A. Concern - Bonneville's obligation to serve Pacific Northwest load will not be affected by exchange contracts.

B. Discussion - Reference is made in Section E.7.a to Section E.4. We recognize Bonneville's intent that granting Assured Delivery for firm power and capacity contracts not decrease Bonneville's ability to serve Pacific Northwest load. However, we are at a loss to understand how capacity/energy or seasonal exchange contracts, which result in capacity and/or energy being returned to the Pacific Northwest would decrease this ability.

C. Recommendation - We recommend that exchanges or reference to Section E.4. be deleted from E.7.a.

25. Section E.7.

A. Concern - Bonneville is prohibited from having to back up firm sales by Northwest utilities by Section 9(c) of Pub.L. 96-501.

B. Discussion - Under the terms of the LTIAP, Bonneville is proposing to grant Assured Delivery to firm sales contracts. In

addition to that, Bonneville should not have to assume the obligation of guaranteeing the contracts, regardless of whether or not Bonneville is given advance notice. In a deficit situation, the extent to which Bonneville would have to acquire new resources to meet these contract obligations could result in an increase in the PF rate schedule. This simply and unnecessarily shifts the risk to Bonneville.

C. Recommendation - Bonneville should clearly state in the LTIAP that it will not be responsible for guaranteeing a utility's contractual commitments. Also, the sentence beginning "Sales by Scheduling Utilities..." should be numbered. Correcting that minor problem, we further recommend that the sentence be revised to read, "Sales by Scheduling Utilities of Pacific Northwest resources will be subject to Section 3(d) of Pub. L. 88-552, and Sections 9(c) and 9(d) of Pub. L. 96-501."

26. Section E.8.a.2.

A. Concern - Bonneville is exceeding its authority.

B. Discussion - This Section would force Bonneville to deny the amount and term of a requested Assured Delivery for a New Hydroelectric Plant any time there are substantial adverse impacts on any fish and wildlife resources in the Columbia River Basin, not just those fish and wildlife related to the Administrator's expenditures mandated under the Regional Power Act and the Council's fish and wildlife program. Bonneville does not have the authority to deny the amount and term of the requested Assured Delivery for a New Hydroelectric Plant based on alleged impacts to fish and wildlife resources, especially fish and wildlife resources that are not related to the Administrator's expenditures. However, the Administrator should take appropriate and necessary action with the applicable licensing or regulatory state and federal bodies to eliminate any substantial adverse impacts on fish and wildlife resources related to the Administrator's expenditures.

C. Recommendation - Section E.8.a.2. should be deleted as being inappropriate and unlawful.

27. Section F.1.

A. Concern - The last sentence in F.1. gives Bonneville preemption rights that are too broad.

B. Discussion - Section F.1. proposes to give Bonneville the right to preempt formula allocation in order to protect fish and wildlife.

Bonneville has indicated this preemption refers only to the unloaded portion of the Intertie, but the policy does not state this.

C. Recommendation - Narrow the focus to preempt only the unloaded portion of the Intertie. Make the last sentence of Section F.1. a separate paragraph (F.3.) to read, "Bonneville reserves the right to preempt the unused portion of this allocation, in part or in whole...Columbia River Basin."

28. Section F.2.a.2.

A. Concern - Bonneville should eliminate the hydro allocation limit concept for Condition 1.

B. Discussion - Bonneville via this part of the policy is indicating that under Condition 1, when Bonneville is in or near spill (and so will be many other non-federal utilities) that an individual utility's allocation will be limited to its hydro allocation. Bonneville will not be limited the same way. We do not support this concept.

First of all, and as we have indicated throughout these comments, the Pacific Intertie is a regional resource with benefits to be shared by all Northwest utilities. Bonneville is already taking care of its firm surplus in the granting of Assured Delivery. Limiting Scheduling Utilities' allocation under Condition 1, and not Bonneville's, strikes us as overkill. Secondly, Bonneville could accomplish the same objective, namely enchancing its revenue from economy energy sales, via timely and astute marketing practices. Limiting Intertie access for Scheduling Utilities reduces Bonneville's incentive to perform in this manner.

C. Recommendation - Delete everything in F.2.a.2. after the words, "...available Intertie Capacity."

29. Section H.1.

A. Concern - Canadian access should be evaluated based on its impact on the region, not just on Bonneville.

B. Discussion - Canadian access impinges on non-federal users of the Pacific Intertie. Therefore, the benefits to giving Canada access should be for the Pacific Northwest, not just Bonneville.

C. Recommendation - Modify the first sentence of H.1. to read, "...no substantial interference with Bonneville's Power Marketing Program or substantial adverse impact on Pacific Northwest non-federal users of the Pacific Intertie."

30. Section I.3.

A. Concern - Bonneville is exceeding its authority.

B. Discussion - Our discussion is fourfold. First, it is inappropriate to deny access to the Pacific Intertie because of alleged adverse impacts to fish and wildlife or because of alleged non-compliance with applicable licenses, permits, or other provisions of applicable state or federal law. Second, in doing so, Bonneville is placing itself in a position of being judge and regulator, both positions in which it clearly lacks authority. Appropriate state and federal regulatory bodies exist to address these issues. Third, these sections fail to distinguish between all fish and wildlife and fish and wildlife related to the Administrator's expenditures, and fail to indicate their applicability only to the Columbia River Basin. Finally, Section I.3.f.2. is extremely harsh in decrementing a Scheduling Utility's allocation as opposed to its declaration.

C. Recommendation - Section I.3 should be deleted as inappropriate and unlawful.

p4
31. Exhibit B

A. Concern - No mention is made of what data to use to calculate Exhibit B.

B. Discussion - Exhibit B of the policy will show a utility's average firm energy surplus. This figure can be calculated using a variety of data including PNUCC data, Bonneville data or Coordination Agreement Submittals. Exhibit B in the NTIAP used PNUCC data.

C. Recommendation - We support the use of PNUCC load resource data or similarly comparable data (adjusted as required) to calculate Exhibit B of the policy. We also recommend that Bonneville verify the accuracy of the numbers by the means affording the greatest reliability.

32. Exhibit C

A. Concern - No energy or capacity figures are shown for the contracts listed in Exhibit C.

B. Discussion - It is impossible to evaluate the impact existing utility contracts will have on Pacific Intertie access without knowing how many megawatts their contracts account for.

C. Recommendation - Revise Exhibit C to show the megawatts associated with each contract listed in Exhibit C.

We appreciate the opportunity to provide these comments and hope that their intent will be incorportated into Bonneville's Long Term Intertie Access Policy.

Sincerely,

Jerry Garman, Managing Agent

RN:GM:jm

cc: Vaughn Scales, Eugene Water & Electric Board
Leon Smith, Cowlitz County PUD
Willard Fields, Chelan County PUD
Dennis Rohr, Mid-Columbia PUD
Gene Lubking, Chelan County PUD
Gosta Einarsson, Douglas County PUD
Don Long, Grant County PUD
Don Caha, Tacoma City Light
Ray Nelson, Seattle City Light

SNAKE RIVER
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January 15, 1987

JOSEPH W MARSHALL
Vice President
Planning,
Resources and Rates

Mr Jim Jura, Administrator
Bonneville Power Administration
P O Box 3621
1002 NE Holladay Street
Portland, OR 97208

Re: Proposed Long-Term
Intertie Access Policy

Dear Mr Jura:

This letter comprises Idaho Power Company's ("Idaho Power") comments to the Bonneville Power Administration's ("BPA") on its Proposed Long-Term Intertie Access Policy ("Access Policy"), dated October 1986, with comments due Friday, January 16, 1987. Idaho Power has previously submitted written comments regarding BPA's Near-Term, Revised Near-Term and Draft Long-Term Intertie Access Policy. Attached hereto are those previous comments. Idaho Power would request that BPA once again consider said comments in formulating its Long-Term Intertie Access Policy and include them in its Record of Decision on said Policy.

To begin with, Idaho Power agrees with and applauds BPA's shift from requiring resources specific sales to allowing system sales. However, Idaho Power still has some serious reservations regarding BPA's Access Policy. In order of priority, they are as follows:

1. BPA's continued insistence on use of the Access Policy as a means of implementing its Fish and Wildlife obligations under the Regional Power Act,

2. The exclusion of PURPA resources in calculating a Scheduling Utility's Assured Delivery as set forth in Exhibit B,

3. BPA's method of calculating Assured Deliveries under the Access Policy for Idaho Power, and

4. The opinion that BPA is exceeding its authority in developing and implementing the Access Policy.

1. Fish and Wildlife. Idaho Power has consistently objected in the past and continues to object to BPA's use of the Access Policy to implement those Fish and Wildlife obligations it incurred under the Regional Power Act.

Without restating in any detail a discussion of the Company's position on this issue, attached hereto are the comments Idaho Power previously made to BPA during the various stages of development of the Access Policy. Please consider once again those comments Idaho Power has previously made regarding this issue. In addition, Idaho Power fully supports and endorses those comments made by the Pacific Northwest Utilities Conference Committee regarding the Fish and Wildlife provisions of the Access Policy.

2. PURPA Resources. It appears that BPA is excluding PURPA resources in calculating a Scheduling Utility's Assured Delivery in the Access Policy. For a federal agency to so act is both inappropriate and inconsistent with the federal PURPA legislation which mandates utility acquisition of PURPA resources. Would you please clarify for Idaho Power the role, if any, PURPA resources play in calculating a Scheduling Utility's Assured Delivery and the reasons BPA proposes to deny consideration of PURPA resources in calculating Assured Delivery. It is not sufficient for BPA to state that such resources are simply increasing the region's surplus and as a result competition for Intertie Access.

3. Method of Calculating Assured Deliveries. As you are aware, Idaho Power plans its resources based on median water. In the past Idaho Power has objected to BPA's inssistence that Idaho's Assured Deliveries be calculated based on critical water. Those objections remain and Idaho Power would request that BPA reconsider its decision to require that Idaho's Assured Delivery calculation be based on critical water. In addition, recently the Idaho Public Utilities Commission refused to rate base Idaho Power's Valmy Unit No 2 because it was not needed to serve load. As a result of that action, Idaho Power would suggest that its Assured Delivery amount be increased from 78 megawatts to 125 megawatts. 125 megawatts represents Idaho Power's share of Valmy Unit No 2.

4. BPA Has Exceeded It's Authority. Early on during the Intertie Access Policy process, Idaho Power submitted detailed written comments regarding the intent of the Regional Power Act with respect to transmission access. Idaho Power would once again renew those comments and request that BPA reconsider implementing the Access Policy since BPA is exceeding its authority/discretion under the Regional Power Act in so doing.

Idaho Power appreciates the opportunity to comment on BPA's Access Policy and looks forward to BPA's reconsideration and response to these comments.

Very truly yours,

J W Marshall

JWM:jar
Attachments

January 16, 1986

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, OR 97212

Re: BPA LONG-TERM INTERTIE ACCESS POLICY

Dear Donna:

These comments regarding BPA's draft Long Term Intertie Access Policy are submitted on behalf of the direct service industries that are members of Direct Service Industries, Inc. (DSIs). In brief, our members believe the draft policy better meets BPA's statutory obligation than does the present near term policy. The proposed LTIAP will, to a greater extent, permit BPA to use its intertie transmission facilities first to meet its own power marketing objectives as required by statutes authorizing BPA transmission.

As you know, beginning with BPA's 1983 rate case, the DSIs have consistently reminded BPA of its statutory obligation to retain for its own use sufficient intertie capacity to market its surplus firm and nonfirm power. We have made these arguments throughout BPA's development of its Interim and Near-Term Intertie Access Policies. Further, in its 1985 opinion in Los Angeles Department of Water and Power v Bonneville Power Administration, the Ninth Circuit Court of Appeals cited these BPA statutory obligations as a principal element in upholding the validity of BPA's Interim Intertie Access Policy. The DSIs have and will continue strongly to support BPA's use of its transmission system first to meet its own power marketing objectives and needs, in accordance with its statutory obligations.

Elements of the draft policy which are particularly appropriate include:

1. Reserving sufficient intertie capacity to market all BPA surplus firm power, including capacity to shape a major share of this surplus into the fall months.

2. Requiring utilities having intertie capacity to use their own transmission rights before seeking use of BPA's.

3. Pre-empting intertie access as needed to market BPA generation available from water releases required to enhance fish migration.

4. Continuing to deny assured access for extra-regional resources, or for seasonal or capacity/energy exchanges, until current surpluses are depleted.

5. Honoring existing intertie contracts but not granting replacement contracts unless qualified under terms of the policy.

6. Allowing the Exportable Agreement to lapse when it expires on December 31, 1988.

There are some elements of the draft policy, however, that give rise to concerns that BPA may not fully meet its statutory obligations to reserve for its own use sufficient intertie capacity to effectively market its nonfirm energy:

1. If BPA Provides assured delivery for each utility's firm surplus, that will reduce intertie capacity available for sale of BPA's nonfirm energy. At a minimum, the utility's entitlement to assured delivery should decline as its surplus firm power declines if a sale has not been consummated.

2. In granting each assured delivery, including access if intertie capacity is increased to 7900 megawatts, BPA must carefully consider all potential conflicts with its power marketing programs and operations, as enumerated in Section C.

3. BPA should clearly reserve the right to change the proposed method of allocating, among itself and scheduling utilities, intertie capacity available for nonfirm energy if the proposed allocation method does not enable BPA to meet its nonfirm energy power marketing objectives.

Attached are a number of text-specific comments which suggest changes in the draft policy. Also attached is a copy of our August 13, 1984 letter and its attachments containing our comments on BPA's then proposed near-term Intertie Access Policy. These comments, largely citing BPA's statutory obligations to reserve transmission first to meet its own needs, are equally applicable to BPA's Long Term Intertie Access Policy.

We compliment BPA on drafting a significantly improved Intertie Access policy and thank you for the opportunity to provide these comments.

Sincerely,

Mark Crisson
Executive Director

Enclosures

Attachment
TIE-1-58

Attachment 1

DRAFT LONG-TERM INTERTIE ACCESS POLICY
TEXT SPECIFIC COMMENTS OF THE DSIs

Note: Suggested changes are for clarification of the draft policy unless otherwise specifically noted.

Section A. 3. "Assured Delivery" means Intertie transmission service provided by BPA under contracts pursuant to provisions of this policy that, for the term agreed to by BPA in the ~~transmission~~ contract ...

A. 18. "Substantial adverse impact," or "substantial increase" or "substantial decrease," or "substantially interfere," means a change that is, in the Administrator's determination, of the qualitative significance, or significant measurable effect, and of sufficient magnitude to ~~require~~ merit remedial action.

C. 1. The Administrator will provide Assured Delivery or will allocate available Intertie Capacity to BPA and to Scheduling Utilities pursuant to the conditions and procedures set forth in this policy, unless otherwise provided by terms of existing contracts listed in Exhibit C. Upon termination of any such contracts, any replacement contract will be subject to the terms of this policy. An Entity that desires access...

C.3.c.(3) the operation of ~~Existing~~ Pacific Northwest Resources whose use will have substantial adverse~~ly~~ impacts on Fish and Wildlife ~~in-a-manner-that-results-in-a-substantial-decrease-in-the-effectiveness-of,-or-a-substantial-increase-in-the-need-for,-expenditures-or-other-actions-by-the-Administrator-to-protect,-mitigate,-or-enhance-Fish-and-Wildlife~~, or otherwise substantially interferes with the obligations of the Administrator...

REASON

The deleted clauses imply that the Administrator is or may be obligated to expend funds or take other actions to mitigate Fish and Wildlife losses resulting from actions of others. The DSIs do not believe the Administrator has these responsibilities and the policy should not imply that he does.

C.4.e. Add a new subsection e. as follows: Consistent with the above, preserving operating flexibility of the Federal System to permit effective implementation of the Administrator's Power Marketing Programs.

REASON

BPA needs to be concerned that sales or exchanges of other parties do not result in their use of the operating flexibility of the Federal System (under the Coordination Agreement) to the detriment of BPA's Power Marketing Programs.

C.6. Any Scheduling Utility or Entity that has access to Southwest markets by contractual or ownership rights to BPA or non-BPA transmission facilities will be required to use the capacity of such facilities prior to receiving any access to BPA Intertie Capacity under this policy. However, BPA and any Scheduling Utility or Entity may agree upon mutually beneficial exchanges of transmission rights.

REASON

This provision should apply equally to those having contract rights to BPA's Intertie facilities. Also, we believe it possible that BPA may find it advantageous to exchange capacity with owners of an Inland Empire Intertie if such a line is built.

E.1.a. For each Scheduling Utility, BPA will establish, and ~~may~~ shall from time to time revise, a maximum amount of Intertie Capacity that the Scheduling Utility may, subject to provisions of this policy, use for Assured Delivery~~,~~. Such amount will be based on the utility's average firm energy surplus, which will be shown in Exhibit B of this policy. A Scheduling Utility's ~~may retain all or a part of its~~ Exhibit B surplus shall remain unchanged to the extent the Scheduling Utility obtains a contract with BPA for Assured Delivery for a firm sale during the period of its surplus and later obtains new resources or power to serve such sale. Otherwise, BPA shall revise Exhibit B annually to reflect each Scheduling Utility's surplus shown in Exhibit B. Two transmission contracts of the Washington Water Power Company (WWPCo), listed in Exhibit C, that were executed prior to September 7, 1984, are an exception. These contracts have a combined firm transmission demand greater than WWPCo's average firm surplus shown in Exhibit B. WWPCo's rights to use these transmission contracts above its Exhibit B amount are not altered by this policy for the remainder of the term of the respective contracts. Thereafter, provisions of this policy will apply to any Assured Delivery for WWPCo.

REASON

The DSIs believe a utility's entitlement to Assured Delivery should change with the amount of its surplus. Annual changes of the surplus seem appropriate. Other changes suggested are primarily for clarification.

E.2.a. Assured Delivery will be provided for Scheduling Utilities' contracts listed in Exhibit C~~.~~ for the remainder of the term of the respective contracts.

E.2.b. Beginning line 3: ... Exhibit C, Assured Delivery may be provided for a maximum of 20 years to the extent that implementing such contract:

E.2.b.(2)(e) the extent to which the buyer does not have the right or the obligation to displace purchases under the contract with nonfirm energy.

E.3.a. Assured Delivery may be provided for contracts for sales of capacity only, to the extent that implementing such contracts:

E.3.a.(3) When Condition 1 is in effect, pursuant to subsection F.1., the capacity contract, or any contract providing for delivery at less than 100% load factor, will not be granted Assured Delivery, but rather may be served under the Scheduling Utility's Formula Allocation~~, or~~; if that allocation is insufficient the contract ~~may~~ shall be served by purchasing power from BPA, if BPA has sufficient power available.

E.4.a. Until BPA is within ~~a planning horizon~~ three years of load/resource balance...

E.4.b. Once BPA is within ~~a planning horizon~~ three years of load/resource balance, as determined by the Administrator, Assured Delivery may be granted for capacity/energy and seasonal exchange contracts of Scheduling Utilities. The criteria that BPA will use to determine whether to grant Assured Delivery for capacity/energy or seasonal exchange contracts are that implementing the contracts ~~do~~ will not conflict with:

(1) the provisions of Section C;

(2) BPA's ability to ~~recover~~ obtain revenues from interregional sales in amounts BPA determines are appropriate to meet is Power Marketing Program objectives;

(3) the efficient operation of the Federal Columbia River Power System for meeting BPA's Power Marketing Programs.

E.7.a. It is BPA's intent that the granting of Assured Delivery under Sections E.2., E.3. and E.4. not increase the uncertainty of the amount of Pacific Northwest load BPA may be called upon to serve or decrease BPA's ability to serve such load. To insure this result...

E.7.a.(2) Last paragraph...Sales by Scheduling Utility's ~~of~~ from Pacific Northwest hydroelectric resources will be subject to section 3(d) of Pub. L. 88-552.

F.1. Last sentence: ...BPA reserves the right to preempt this allocation, in part or in whole, should BPA require additional Intertie Capacity in order to ~~take actions~~ make sales from generation available to BPA from operations to protect Fish and Wildlife resources within the Columbia River Basin.

H.1. Third sentence: ...Such contract must include benefits to BPA such as increased storage, improved system coordination or operations. ~~or disposition of down stream benefits under the Canadian Treaty beginning in 1988.~~ All transactions would contain as a condition precedent an increase in Intertie capacity to approximately 7,900 MW and accord with all provisions of Section C.

H.2. Add sentence: Any such access will alter allocation provisions of Section F.

Exhibit C. Last sentence of first paragraph: ...These contracts will continue to receive Intertie access under the Long Term IAP for the remainder of the term of the respective contracts.

Attachment
TIE-1-58

DIRECT SERVICE INDUSTRIES, INC.

1290 Lloyd Center Tower • 825 N.E. Multnomah Street
Portland, Oregon 97232
(503) 233-4445

August 13, 1984

Mr. Peter T. Johnson
Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

Re: BPA Intertie Access Policy
File No. TIE-1

Dear Mr. Johnson:

These comments on BPA's proposed near-term Intertie Access Policy are submitted on behalf of Bonneville Power Administration's (BPA) direct service industrial customers that are members of Direct Service Industries, Inc. (DSIs).

We see no useful purpose in providing point-by-point comments on BPA's proposed near-term Intertie Access Policy. We have submitted extensive section-by-section comments and our analysis of BPA's statutory obligations respecting issues BPA raised relating to its adoption of an Intertie Access Policy (see our letter dated March 15, 1984, copy attached). These remain our detailed comments. We are distressed that BPA has ignored those comments, and feel compelled to comment further on BPA's totally abandoning its efforts to comply with the letter and spirit of the statutes governing Bonneville's authority to make its transmission system available to others.

BPA Statutory Obligations

Each of BPA's previous requests for comments implied that BPA was on the right track--this is, that BPA would carry out its statutory obligation and assert BPA's preference to the intertie in order to prevent substantial interference with BPA's marketing program. Yet BPA's proposed near-term Intertie Access Policy is entirely inconsistent with BPA's often stated and continuing statutory obligation to assert its own priority to the intertie, or in the words of one statute, to provide for use by others only that transmission capacity "which is not required for the transmission of federal energy ..." 16 U.S.C. §837e. BPA's first obligation is to meet the requirements of the law. That is where BPA's analysis of an appropriate Intertie Access Policy must begin.

States, 243 U.S. 389, 409 (1917); National Audibon Society, Inc. v. Watt, 678 F.2d 299, 307 (D.C. Cir. 1982).

We believe that BPA's statutory obligation to assert its own priority to the intertie was clearly expressed in the Bonneville Project Act, reenforced with the passage of the Regional Preference Act and the Transmission System Act, and continues under the Regional Power Act. While the Regional Power Act, in Section 9 discusses the Administrator's obligation to make his excess transmission capability available on a non-discriminatory basis, that Act did nothing to change the primary requirement that the amount of transmission that is to be made available on a fair and non-discriminatory basis is only that "in excess of the capacity required for power generated or acquired by the United States." The legislative history of the Regional Act makes that clear. See H.R. Rep. 976, Part II, 96th Cong. 2d Sess. 55 (1980).

The words of Congress define the amount of transmission that the Administrator can make available "without substantial interference with his power marketing program, applicable operating limitations or existing contractual obligations." That amount is only that which is "excess to the needs of the government." BPA allocated $126 million of unsold surplus costs in its last rate case. Under that circumstance, we find it incredible for BPA to argue that failure to assert its rightful intertie access priority is not a "substantial interference with its power marketing program." Through attempts to split hairs over what is "substantial," BPA would ignore the long standing and express requirements to make available only that transmission which is excess to its own needs.

BPA's proposed near-term Intertie Access Policy is inconsistent with any reasonable BPA power marketing policy. Under the policy, BPA proposes to provide intertie access to all generating utilities, essentially on a par with BPA, both for firm and nonfirm sales. Instead of beginning with an analysis to determine what portion of the intertie is "excess to the needs of the government" (or "which is not required for the transmission of federal energy") as required by federal law, BPA begins its short-term Intertie Access Policy with the unsupported presumption that providing intertie access on a par with BPA will "not substantially interfere with BPA's power marketing program." We dispute the correctness of that presumption. Even if that presumption were correct, that test is a subjective one. The federal statutes require BPA to first engage in an objective and quantitative analysis which determines that portion of the intertie which is in excess of the needs of the government.

BPA proposes to enhance the marketing programs of the region's other utilities to the detriment of its own power marketing program. All generating utilities except Portland General Electric Company, Pacific Power & Light Company and Utah Power & Light Company have lower total average system costs than does

surely results in substantial detriment to BPA's power marketing programs.

Summary Results of Proposed Policy

The results of BPA's proposed near-term Intertie Access Policy can be summarized as follows:

1. BPA's full requirements and industrial customers will continue to pay power costs that are significantly higher than the average system cost of most generating utilities while at the same time BPA will continue to experience an unsaleable surplus, due in large measure to BPA's failure to assert its intertie access priority.

2. BPA will continue to have great difficulty meeting its repayment obligations, running the risk that an adverse solution will be imposed legislatively.

3. The region's generating utilities (even those already owning substantial intertie rights) will receive a windfall benefit--equal access to intertie capability, while the competitive position of BPA's DSIs and other full requirements customers is further eroded by this action.

Clearly such a policy would significantly impact BPA's power marketing programs.

Conclusion

We urge you to adopt an Intertie Access Policy that reserves for BPA the intertie capacity it needs to market its surplus firm and nonfirm energy, or to adopt an intertie allocation that produces this result. BPA's earlier notices demonstrated that BPA understands its statutory obligations and the questions which it must satisfy prior to making intertie access available to third parties. Any other Intertie Access Policy is inconsistent with the law and harmful to all of BPA's requirement customers, particularly the DSIs (given their current financial state).

Sincerely,

Brett Wilcox

Brett E. Wilcox
Executive Director

MCD5/112

DIRECT SERVICE INDUSTRIES, INC.

1290 Lloyd Center Tower • 825 N.E. Multnomah Street
Portland, Oregon 97232
(503) 233-4445

March 15, 1984

Ms. Donna L. Geiger
Bonneville Power Administration
P. O. Box 12999
Portland, OR 97212

RE: File No. TIE-1

Dear Ms. Geiger:

These comments are submitted in response to your February 14 letter and Bonneville Power Administration's ("BPA") filing in the Federal Register on February 16, 1984 (49FR5990) respecting issues relating to BPA's adoption of an Intertie Access Policy and are submitted on behalf of the BPA direct service industrial customers ("DSIs") that are members of DSI, Inc.

BPA must adopt an Intertie Access Policy that provides the best possible assurance that BPA can and will market its surplus firm power and nonfirm power at reasonable rates and on reasonable terms and conditions. Adoption of a policy providing such assurance is required by principles of prudent financial management, BPA's longstanding obligation to market its power consistent with sound business principles and is expressly required by statute. (See Attachment 2, DSI analyses of BPA statutory marketing obligations, excerpted from briefs filed in the BPA 1983 rate case.) Immediate adoption of such a policy should enable BPA to market projected firm power surpluses that have become evident over the last two years.

BPA rates now applicable to the DSIs are inflated by 2.4 mills/kWh owing to BPA's forecast inability to sell its surplus firm power in 1983-85. These rates also contain an additional charge of 0.6 mills/kWh as a result of deferrals (BPA's failure to achieve projected revenues in prior years) which would not have occurred had BPA sold its surplus power at the average rates projected in the rate cases. These additional costs (which could be as much as $90 million during Contract Year 1984-85) have severely and adversely impacted profi ability of DSI operations in the Pacific Northwest. The additional costs increase the likelihood some DSIs will find operating in the Northwest uneconomic and may permanently close their local plants. If DSIs leave the Northwest, BPA's and the region's rate problems will be greatly increased and employment, taxes and the region's general economy also will be adversely impacted. BPA must recognize its obligations to all within the region and must

take immediate steps to remedy the impacts unsold surplus firm power are having and will have on power costs and the economy of the Pacific Northwest.

BPA's Intertie Access Policy should be designed to achieve the highest and best use of the intertie. Economic efficiency can be achieved only if power resources are optimally used and their economic value not diluted by sales at distressed prices. A BPA policy that does not depress its own market for surplus firm and nonfirm power surely will benefit both BPA's ratepayers (as intended by Congress) and the region as a whole. BPA should not allow regional utilities to depress rates for Northwest power when BPA has power for sale which would provide economic benefits both for the Northwest and California entities.

The DSIs strongly support an Intertie Access Policy that expressly reserves needed intertie capacity for BPA use, but we do not support continuing present marketing practices under the Exportable Agreement which are not in accord with sound marketing policies. That Agreement cannot abridge BPA's obligation to reserve needed intertie capacity for its own use. Further, BPA's permitting intertie access to non-regional entities is neither contractually mandated nor consistent with a sound BPA power marketing program. These topics are discussed more fully in Attachment 1 in which we set out our comments on each of the specific Policy issues BPA has raised.

We are pleased to provide you these comments and trust that BPA will move expeditiously to adopt and implement an Intertie Access Policy that reflects its statutory obligations.

Sincerely,

Brett Wilcox
Executive Director

ATTACHMENT 1

FILE NO: TIE-1
BPA INTERTIE ACCESS POLICY ISSUES
SPECIFIC COMMENTS OF DIRECT SERVICE INDUSTRIES

1. WHAT SHOULD BE THE SCOPE OF BPA'S INTERTIE ACCESS POLICY?

The DSIs agree with the principles listed. BPA must reserve for its use sufficient intertie capacity to enable it to sell all of its expected surplus firm power and, to the extent possible, enough intertie capacity to market the amount of nonfirm energy it anticipates it will have available for sale to California. Intertie capacity should be made available for use by others only if BPA does not have resources available for sale at rates BPA determines would be economic for prospective California purchasers; i.e., BPA should not make intertie access available to another utility merely because a California utility would prefer to buy at a lower rate from that Northwest utility. When unused intertie capacity is available, BPA should, as the policy principles indicate, make such capacity available on a fair and equitable basis for use by others.

2. WHAT IS THE SCHEDULE FOR POLICY FINALIZATION IN CONTEXT WITH ENVIRONMENTAL REVIEW?

We urge BPA's adoption of an Intertie Access Policy at the earliest practical date. Since longstanding statutes and Congressional policies that predate NEPA mandate that BPA use its transmission to carry out its power marketing policies, an Environment Impact Statement does not seem to be required.

If BPA determines an Environmental Assessment is required, it should recognize that use of facilities will not be altered from planned use through a sale of surplus firm power to California. Also, substantial environmental benefits should result from shutdown of California oil and gas-fired generation or delay in construction of new resources that may be otherwise required in California.

The DSIs support BPA's making its Intertie Access Policy effective on an interim basis if it should decide an Environmental Impact Statement is required.

3. MAY BPA GRANT FIRM OR NONFIRM ACCESS TO THE INTERTIE IF PROVIDING THAT SERVICE WOULD SUBSTANTIALLY INTERFERE WITH THE ADMINISTRATOR'S POWER MARKETING PROGRAM?

BPA cannot grant access to the intertie if the result might be substantial interference with the Administrator's power marketing program. Priority for BPA's power marketing program is specifically required by the Regional Act, as well as by earlier laws. Language similar to that contained in the Regional Act is contained in Section 6 of the Regional Preference Act of 1964, Public Law 88-552, as discussed at page 43 of the DSI Prehearing Brief in BPA's 1983 Rate Case. See Attachment 2. In addition, Section 5 of the Flood Control Act of 1944, provides in part:

> "Electric power and energy generated at reservoir projects. . . .shall be delivered to the Secretary of Interior, who shall transmit and dispose of such power and energy in such manner as to encourage the most wide spread use thereof at the lowest possible rates to consumers consistent with sound business principles. . ."

Operating in accordance with power marketing policies that conform with sound business principles thus has been a BPA statutory obligation at least since 1944.

Providing energy to California utilities at spill rates (which results in many hundreds of millions of dollars in earnings for California utility stockholders and savings for ratepeyers there, while rates in the Northwest have increased nearly tenfold in the past five years) does not conform with either appropriate BPA power marketing policies or sound business principles. This is evidenced by temporary and permanent closures of many Northwest industrial facilities, loss of jobs and population, unprecedented fuel switching, and price induced conservation. Consequences adverse to the region will continue and worsen if inequities in BPA's power marketing arrangements are not promptly corrected. Adoption of power marketing policies enabling BPA to operate in accordance with sound business principles (taking into account BPA's current large power surpluses) and enabling BPA to deal effectively with that surplus and meet its repayment obligations is long overdue.

Although BPA's policies regarding use of the intertie must not contravene its contractual obligations, BPA must reserve for its use the intertie capacity it needs to implement sound power marketing programs for conditions that exist today and that can be foreseen. It is appropriate for BPA to make surplus transmission capacity available for use by others, but only to the extent that this does not adversely impact costs to BPA's firm power purchasers, to whom it owes its primary obligations.

4. HOW COULD BPA ESTABLISH A POLICY WHICH WOULD PROVIDE INTERTIE TRANSMISSION TO UTILITIES WITHOUT SUBSTANTIAL INTERFERENCE WITH THE ADMINISTRATOR'S POWER MARKETING PROGRAM?

As discussed above, federal law requires that BPA reserve sufficient capacity for the sale of BPA's surplus firm and nonfirm energy. The DSIs support BPA's continuing analysis of its needs and potential markets in determining the amount of capacity to be so reserved.

We do not, however, support BPA's assumption set out in Section 4.6 of the issue paper that BPA would operate under current Exportable Agreement practices. BPA need not, nor should it. Although it is not expressly stated in the Exportable Agreement who determines "capacity available in the PNW-PSW intertie lines for transmission of exportable energy", surely BPA, as owner, must make this determination. (Exportable Agreement, Section 4(c) and Exhibit A, Section 1(a), emphasis supplied.) Continuing current practices under the Exportable Agreement is inconsistent with a reasonable power marketing program because continuation will allow entities in California to continue to await purchase of Northwest energy at spill rates. BPA's Intertie Access Policy must clearly state that capacity BPA reserves for its use is not available for transmission of "exportable energy" under the Exportable Agreement.

In the discussion of arrangements under which transmission services would be provided for others, we assume the issue paper reflects only that portion of intertie capacity that BPA has not reserved for its own surplus firm and nonfirm sales. BPA should reserve the right to displace sales by others in the event it discovers it has incorrectly estimated its intertie capacity needs in advance of any year. Displacement should not be with exportable energy in the sense that term is now used, but with BPA's surplus firm or standard rate nonfirm energy.

5. ARE THERE CIRCUMSTANCES UNDER WHICH BPA COULD GRANT FIRM TRANSMISSION ON INTERTIE CAPACITY FOR TRANSACTIONS WHICH ARE COMPATIBLE WITH THE ADMINISTRATOR'S POWER MARKETING PROGRAM?

The DSIs do not dispute BPA's Section 9(i) authority to act as agent for its customers in disposal of surplus for others. But BPA must assure itself that any such "agent" functions do not conflict with its overall power marketing policies. Unless substantial benefits can be identified which offset potential loss of nonfirm sales by reason of others' use of the intertie,

BPA power marketing may be adversely impacted. All aspects of any proposed arrangement, including intra-regional sales of exchange power, must be analyzed for consistency with sound business practices and power marketing policies for BPA.

Only if BPA can derive net rate benefits greater than those that would be obtained from potential additional sales of its surplus firm and nonfirm energy would such use be consistent with BPA's statutory obligations.

6. ARE THERE CIRCUMSTANCES UNDER WHICH BPA COULD GRANT NONFIRM TRANSMISSION ON INTERTIE CAPACITY THAT HAD OTHERWISE BEEN RESERVED FOR THE ADMINISTRATOR'S POWER MARKETING PROGRAM?

The qualification "to the extent capacity is not required by BPA for firm or nonfirm sales" used in the first paragraph of this section of the issue paper could be construed to mean that if BPA does not find purchasers for its energy, firm or nonfirm, its reserved intertie capacity could be made available for use by others. The second paragraph perhaps is intended to clarify that intertie capacity would be made available for use by others only if BPA does not have power available at rates BPA determines are "economically advantageous" to California purchasers. BPA should not make intertie capacity available simply because another Northwest utility is willing to sell power to the California purchaser at a lower rate. A BPA determination of the economically advantageous rate is the appropriate standard.

7. SHOULD BPA APPLY CONDITIONS TO OTHER ENTITIES FOR OBTAINING INTERTIE ACCESS?

c. Residential Exchange Costs.
Surely BPA should consider the potential impacts on its exchange costs of resources sold at less than fully allocated costs. And generally we favor a policy under which unrecovered exchange costs of a resource could not be passed on to BPA's customers. But using fully allocated cost as a benchmark does not always provide the most favorable net result. Therefore, each proposal should be examined individually for its impact on BPA's power marketing policies and its net impacts on BPA's rates.

d. Relationship to the Exportable Agreement.
BPA's proposal should not be greatly influenced by the Exportable Agreement. As discussed under paragraph 3 above, BPA has the right to determine capacity available for parties operating under the Exportable Agreement, and it must exercise this right in formulating an Intertie Access Policy. In any event, the Exportable

Agreement expires in 1988 and BPA should adopt a flexible Intertie Access Policy that will survive the expiration of that Agreement.

e. Non-Pacific Northwest Regional Resources. The DSIs urge BPA adoption of a policy that permits non-regional entities use of intertie capacity only when, and if, there is no "economical power" available to prospective purchasers in the Southwest from BPA or other regional entities. BPA and secondarily the Pacific Northwest region should be primary beneficiaries of the intertie, consistent with equitable benefits for California utilities.

8. HOW SHOULD BPA APPORTION ACCESS TO INTERTIE CAPACITY NOT NEEDED FOR BPA'S POWER MARKETING PROGRAM?

Of course BPA must comply with requirements of the Regional Act's Section 9(i)(3), consistent with all of its other statutory obligations. If intertie capacity is available beyond that needed by BPA to carry out an effective power marketing program, Section 9(i)(3) may apply to some resources.

BPA must seriously consider the value of future options and other alternatives in allocating intertie capacity to others. This should be done on a case-by-case basis. If a resource "option" appears to better conform with an efficient BPA power marketing program than other alternatives it should be selected; otherwise it should not be given special consideration.

9. SHOULD RESOURCES SUCH AS COGENERATION FACILITIES THAT ARE SUBJECT TO A BPA OPTION TO PURCHASE BE GIVEN PRIORITY TO INTERTIE ACCESS?

The DSIs' views are discussed in the preceding paragraph. Again, we assume the priority here discussed is only for capacity not needed or reserved by BPA for its own use.

10. SHOULD BPA'S POLICY ON INTERTIE ACCESS DIFFERENTIATE BETWEEN UTILITIES WHICH HAVE THE ABILITY TO SCHEDULE POWER AND OPERATE A GENERATION CONTROL AREA, AND THOSE UTILITIES OR OTHER ENTITIES THAT DO NOT?

All arrangements should be by, or through, utilities with generation control. Either BPA or a utility may serve this function for entities with generation within their respective control areas, but neither BPA nor utilities can assume reserve and other power scheduling responsibilities for others without suitable contracts.

11. HOW SHOULD BPA INTERTIE POLICY INTERACT WITH THE ADMINISTRATION OF THE EXPORTABLE ENERGY AGREEMENT?

Again, the DSIs believe that BPA reserved intertie capacity and capacity made available for "firm" transactions of others (the latter subject to replacement by BPA sales) should be capacity BPA determines is not available for use under the Exportable Agreement. Preserving provisions of current exportable energy arrangements for a major share of total intertie capacity invites California utilities to wait until they are able to purchase a major share of the Northwest surplus at spill rates.

We believe provisions of the Exportable Agreement should be available to all requesting Pacific Northwest scheduling utilities and those having acceptable arrangements for scheduling through others.

12. SHOULD BPA INTERTIE ACCESS POLICY PROVIDE GUIDELINES FOR THE PERIOD FOLLOWING THE EXPIRATION OF THE EXPORTABLE AGREEMENT?

We agree with BPA's earlier statement that its Intertie Access Policy should be able to accommodate changing conditions that reflect evolving BPA power marketing programs and other obligations. For the reasons discussed in response to question 11, principally the incentive for California entities to await the bargain sale, a follow-on exportable energy type agreement does not now appear to accord with BPA or regional interests.

Incentive for California's utilities to wait to purchase power and thereby to pay spill rates for most of the Northwest energy they purchase might be diminished if allocation of intertie access for nonfirm sales by Northwest entities were based on the estimate of available energy each will have, including estimated DSI IRE not needed in load. Any capacity not needed by one entity could be available for use by others. There is no need to decide this point, however, until a determination is made of the amount of intertie capacity, if any, that will be available for such use.

RDJ:SS/5

ATTACHMENT 2

BPA MUST ASSERT ITS INTERTIE ACCESS PRIORITY AS A MATTER OF LAW

Aside from the numerous policy reasons for BPA to assert its right to preferred access to the intertie expressed in Attachment 1 to this letter, BPA is compelled as a matter of law to do so. Failure to assert BPA's right to priority access is a violation of positive law.

As the DSIs argued in the attached excerpts of briefs filed in BPA's 1983 rate proceeding, beginning with the Bonneville Project Act in 1937 there has been a long and consistent history of statutory provisions requiring BPA to use its transmission system to first dispose of its own resources. This should not be surprising. From the very beginning, the Federal reclamation laws recognized electricity as a by-product of Federal multi-purpose water projects. Electricity was incidental to the flood control and irrigation purposes of the authorizing legislation. Power was viewed simply as the disposal of surplus Federal property. See Ashwander v. Tennessee Valley Authority 297 U.S. 288, 336 (1936). Transmission was incidental to the disposal of that property. It was therefore completely rational that the Federal government would use its own transmission system for the sale of its own surplus property. The power to dispose of any kind of property belonging to the United States is vested in Congress without limitation. Alabama v. Texas 347 U.S. 272, 273. Congress has

exercised its authority through a comprehensive series of statutes each subjecting BPA's authority to provide transmission to others to the requirement that such service not interfere with BPA's underlying objective to market the government's surplus property (power) for the government's benefit.

It is a general rule of statutory construction that statutes dealing with the same subject matter are to be read together and harmonized. 2A Sands, Sutherland on Statutory Construction § 52.02 (3d ed. Supp. 1983). This is particularly true of the Federal power statutes which the Attorney General has determined are intended to in pari materia. 41 Ops. Atty. Gen. 236 (1955). As demonstrated in the attached excerpts from the DSIs' briefs, the transmission access provisions of Federal power marketing statutes governing BPA have consistently carried out one theme: BPA is to provide access to the transmission system only when there is transmission capacity "which is not required for the transmission of federal energy".[1/] Intertie access for disposition of other's power can only be provided "if such disposition is not in conflict with the Administrator's other marketing obligations."[2/] These obligations have not changed over the years. They have been repeated in virtually every major piece of legislation involving the BPA--as one could expect given that the government's longstanding interest is to dispose of its own "surplus property" first.

1/ 16 U.S.C. § 837e (Section 6 of the Regional Preference Act).

2/ 16 U.S.C. § 839f (Regional Power Act, Section 9(i).

The best evidence of what Congress intends is found in the express words of statutes. However, the legislative and administrative history leading up to the construction of the intertie is completely consistent with the priority for Federal access mandated in the statutes. It is evident that the only reason individual utilities were granted access to the intertie at all was to compensate them for their construction expenses associated with the intertie. They had to "buy into" the intertie program. The full extent of such utilities' rights are expressed in the firm access contracts which they executed.[1/] BPA's right to the remainder of the intertie was intended to benefit its ratepayers. See eg. Committee on Appropriations, U.S. Department of the Interior, REPORT TO THE APPROPRIATIONS COMMITTEES OF THE CONGRESS OF THE UNTIED STATES RECOMMENDING A PLAN OF CONSTRUCTION AND OWNERSHIP OF EHV ELECTRIC INTERTIES BETWEEN THE PACIFIC NORTHWEST AND PACIFIC SOUTHWEST 34 (Comm. Print 1964).

The DSIs urge a careful reading of the statutory requirements. They are long-standing, consistent and unambiguous--before BPA permits access of others to the intertie first it must satisfy itself that such access is surplus to its own needs for marketing BPA power and second, find that transmission services can be furnished without substantial interference with the Administrator's power marketing program.

If BPA is unwilling to collect the $63.2 million from its wheeling customers as FERC has determined that it must, at the very least, BPA must not attempt to collect that portion of its deferral from its power customers who are already reeling from power cost increases. In that event, BPA must establish a separate accounting of transmission system costs and revenues and either collect the $63.2 million from wheeling customers as ordered by FERC or set aside that amount of deficit in a separate account so that debt service on the underrecovery will not be charged to power customers.

Furthermore, BPA cannot ignore the revenue instability problem associated with its transmission rates as currently designed. DSI witness Mayson proposes two simple alternative ways of designing transmission rates to achieve revenue stability and to assure recovery of the appropriate and assigned level of revenues from the transmission customer class (see Exh. DSI-12 at 3-4), as required under by Section 10 of the Transmission System Act as interpreted by FERC in its August, 1982 order.

C. BPA Must Assert Its Right to Preferred Access to the Intertie in Order to Assure the Sale of Its Own Resources.

Three separate statutes expressly provide for BPA's priority access to the inter-regional interties for the transmission of Federal energy. (In the case of P.L.88-552, transmission of Canadian treaty power also has priority access). These Acts conclusively demonstrate BPA's right and statutory obligation to assert priority access. This priority duty and right, coupled

with the requirement that BPA develop the lowest possible rates consistent with sound business principles, compels BPA to develop its rates assuming that it will assert such preferred access.

1. The Regional Preference Act, 16 U.S.C. § 837 et seq. provides in pertinent part:

> Sec. 6. Any capacity in Federal transmission lines connecting, either themselves or with non-Federal lines, a generating plant in the Pacific Northwest or Canada with the other area or with any other area outside the Pacific Northwest, which is not required for the transmission of Federal energy or the energy described in section 9, shall be made available as a carrier for transmission of other electric energy between such areas . . . 16 U.S.C. § 837e.

The legislative history of this section evinces Congressional intent that the Administrator use the intertie to first market Federal power:

> Excess capacity in any Federal transmission lines interconnecting the Pacific Northwest with another marketing area is made available for wheeling non-Federal energy. Federal energy and downstream power benefits to which Canada would be entitled under the proposed treaty would have priority to the use of Federal lines. . . .
>
> The Secretary may enter into agreements for the wheeling of energy generated in Canada, but such energy stands on the same basis as any other non-Federal energy. It does not have the priority granted to Federal energy and Canada's entitlement to downstream power benefits under the proposed treaty. H R. Rep. 590, 88th Cong., 2d Sess. (1963) reprinted in [1964] U.S. Code Cong. & Ad. News 3342, 3350 (emphasis supplied).

2. The Transmission System Act provides at Section 6:

> The Administrator shall make available to all utilities on a fair and nondiscriminatory basis, any excess capacity in the Federal transmission system which he determines to be in excess of the capacity required to transmit electric power generated or acquired by the United States. 16 U.S.C. § 838d (emphasis supplied).

The legislative history of that section makes clear that the Act means what it says:

> Section 6. This section provides that any capacity in the Federal transmission system excess to the needs of the Government will be made available to all utilities on a fair and nondiscriminatory basis. It is anticipated that firm long term contracts for the transmission of non-Federal power will be executed by the Administrator in the same manner as has been previously the case. S. Rept. No 93-1030, 93rd Cong., 2d Sess. 22 (1974)

Virtually identical language appears in the House Report (see H.R. Rep. No 1375, 93rd Cong., 2d Sess., (1974) reprinted in [1974] U.S. CONG. & AD. NEWS at 5814, 5819); the House Hearings Record (see Hearing on H.R. 14168 before the Subcomm. on Water and Power Resources of the Comm. on Interior and Insular Affairs, 93rd Cong., 2d Sess. 22 (Section by Section analysis) and 34 (Statement of Donald Paul Hodel); and the Senate Hearings (Hearing on S.3362 before the Subcomm. on Water and Power Resources of the Comm. on Interior, 93rd Cong., 2d Sess. 104.

3. The Regional Power Act, in two different subsections provides:

> 9(d) No restrictions contained in subsection (c) shall limit or interfere with the sale, Exchange or other disposition of any power by any utility or group thereof from

any existing or new non-Federal resource if such sale, Exchange or disposition does not increase the amount of firm power the Administrator would be obligated to provide to any customer. In addition to the directives contained in subsections (i)(1)(B) and (i)(3) and subject to:

(1) any contractual obligation of the Administrator,
(2) any other obligations under existing law, and
(3) the availability of capability in the Federal transmission system

The Administrator shall provide transmission access, load factoring, storage and other services normally attendant thereto to such utilities and shall not discriminate against any utility or group thereof on the basis of independant development of such resource in providing such service. 16 U.S.C. § 839f (d) (emphasis supplied).

* * * * *

9(i)(1) At the request and expense of any customer or group of customers of the Administrator within the Pacific Northwest, the Administrator shall, to the extent practicable—

* * * * *

(B) dispose of, or assist in the disposal of, any electric power that a customer or group of customers proposes to sell within or without the region at rates and upon terms specified by such customer or group of customers, if such disposition is not in conflict with the Administrator's other marketing obligations and the policies of this Act and other applicable laws.

* * * * *

(3) The Administrator shall furnish services including transmission, storage, and load factoring unless he determines such services cannot be furnished without substantial

interference with his power marketing program, applicable operating limitations or existing contractual obligations. The Administrator shall, to the extent practicable, give priority in making such services available for the marketing, within and without the Pacific Northwest, of capability from projects under construction on the effective date of this Act, if such capability has been offered for sale at cost, including a reasonable rate of return, to the Administrator pursuant to this Act and such offer is not accepted within one year. 16 U.S.C. § 839f(i) (emphasis supplied)

These three statutes create obligations and limitations on BPA's furnishing transmission services over the intertie. The earliest in time, P.L. 88-552, requires that BPA and Western Area Power Administration make available "any capacity in Federal transmission lines" . . . "which is not required for the transmission of Federal energy." The next step came in the Transmission System Act which added the requirement that BPA's obligation is to provide transmission to all utilities on a "fair and nondiscriminatory basis." The amount to be made available is "that which he determines to be in excess of the capacity required to transmit electric power generated or acquired by the United States."

The Regional Act further qualifies BPA's obligation to provide transmission services. Section 9(i)(3) provides there is no obligation to provide transmission (and other services) if the Administrator determines that "such services cannot be furnished without substantial interference with his power marketing program." Section 9(i)(1)(B) requires BPA, upon request, to dispose

of, or assist in the disposal of, any electric power that a customer or group of customers proposes to sell, but only . . . "if such disposition is not in conflict with the Administrator's other marketing obligations and the policies of this Act and other applicable laws."

The DSIs recognize that Canadian treaty power, PGE, and PP&L have preferred access to parts of the intertie. The DSIs do not suggest here that BPA seek to abrogate such contractual entitlements. However, the bulk of the intertie is subject to BPA's right of preferred access in order to carry out its marketing obligations. Those obligations include keeping its rates overall as low as consistent with sound business principles--something which cannot be achieved if BPA is unable to market its own power or if revenues for its surplus power sales are less than the cost of providing that service.

The Administrator's fundamental marketing obligation stems from the Bonneville Project Act:

> In order to encourage the widest possible use of all electric energy that can be generated and marketed and to provide reasonable outlets therefor, and to prevent the monopolization thereof by limited groups, the Administrator is authorized and directed to provide, construct, operate, maintain, and improve such electric transmission lines . . . as he finds necessary, desirable, or appropriate for the purpose of transmitting electric energy, available for sale, from the Bonneville project to existing and potential markets . . . . 16 U.S.C. § 832a(b) (emphasis supplied).

BPA can and must assume that it will market its entire surplus, at cost, because a market exists at that rate. BPA can protect its ability to market such surplus at cost against competition from other Northwest suppliers which attempt to undercut BPA's rates in an effort to assure themselves of sales which, if made by BPA, would benefit the entire region and not just the limited groups of utilities. Bonneville must restrict access to the intertie (except to those utilities which have a pre-existing contractual right) until BPA has marketed its entire surplus. Then, and only then, BPA should give non-discriminatory access to other utilities to market their resources.

BPA's intertie access priority is not limited to a circumstance in which the utilities on the Southern half of the intertie would prefer to purchase from BPA. Such a limitation would, of course, entirely defeat BPA's preference. BPA does not have the Hobson's choice of either engaging in a fire sale and selling its power for whatever it can get or not making any sales until the market has absorbed all the competing utilities' power. The express Federal priority can not be defeated by such twisted logic. The words "not required for the transmission of Federal energy," "excess capacity," and "if such disposition is not in conflict with the Administrator's other marketing obligations" establish overwhelming evidence that Congress was concerned with the Administrator selling his own resources first.

based upon the principles set forth in the DSI testimony--see, Ex. DS-13, p. 9-10. Adoption of such a policy--when combined with rates for direct industrial service which reflect Bonneville's actual cost of serving those loads--would be a major factor promoting industrial viability and stability in the Region. As a result, Bonneville's ability to plan accurately for the receipt of anticipated revenue would be enhanced.

Instead of spilling water and losing potential electric generation and associated revenue, and instead of selling power at distress prices to buyers outside of the Region, Bonneville has the opportunity through sales of surplus power to the DSIs and other regional loads to permit the operation of idle industrial capacity within the Pacific Northwest--which creates employment, local income, and additional taxes--while simultaneously increasing its own revenue. Such increased revenue can reduce power rates for all of Bonneville's customers. Failure to provide for the opportunity to make such sales, and to take all steps possible to protect such transactions from challenge, will jeopardize those benefits unnecessarily.

C. BPA Must Use Its Preferred Access to the Intertie to Market Its Own Surplus Resources Before Making Surplus Transmission Capacity Available to Other Utilities

A major constraint to BPA's marketing of nonfirm energy is intertie capacity. Tr. 7101. The same constraint has been perceived by BPA as an impediment to selling its surplus firm power. Tr. 4455. The DSI task force looked at applicable statutes, who constructed the major portion of the Northwest

portion of the intertie, and contractual commitments. It concluded that BPA not only can, but must use available, uncommitted capacity in the intertie, first to market its own power before it has any obligation or right to use its transmission to wheel other's power in competition with the Federal power.

The DSIs demonstrated, early in this case, that Congress could not have been clearer in requiring BPA to use the Northwest intertie for meeting its own marketing obligations before making available "any capacity which is not required for the transmission of federal energy."[9] Certain generating utilities can be expected to argue that Congress did not mean that which it expressly provided. They likely will argue that the phrases:

> "which is not required for the transmission of federal energy,"[10]
>
> "excess of the capacity required to transmit electric power generated or acquired by the United States,"[11]
>
> "if such disposition is not in conflict with the Administrator's other marketing obligations,"[12] and
>
> "the Administrator shall furnish services including transmission, . . . unless he

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9 16 U.S.C. § 837e (Regional Preference Act). See also 16 U.S.C. § 832a(b) (Section 2 (b), Bonneville Project Act); 16 U.S.C. § 838d (Section 6 Transmission System Act); 16 U.S.C. § 839f(d) (Regional Power Act Section 9 (d) and 16 U.S.C. § 839f(i) (Regional Power Act Section 9(i)) and the legislative history of such sections cited at pages 42-48 of DSI Prehearing Brief.

10 16 U.S.C. § 837e (Section 6, Regional Preference Act).

11 16 U.S.C. § 838d (Section 6, Transmission System Act).

12 16 U.S.C. § 839f (Regional Power Act, Section 9(i).

> determines such services cannot be furnished without substantial interference with his power marketing program . . . ."[13]

are not intended to limit the Administrator's obligation or right to furnish transmission services. The subject language cannot be ignored:

> It is an elementary rule of construction that effect must be given, if possible, to every word, clause and sentence of a statute. A statute should be construed so that effect is given to all its provisions so that no part will be inoperative or superfluous, void or insignificant, and so that one section will not destroy another unless the provision is the result of obvious mistake or error. C. Sands, Sutherland Statutory Construction, § 46.06 (4th ed. 1973).

To give effect to the statutory phrases recited above, one can only conclude that the law limits the Administrator's obligation and authority to use the Federal transmission system to instances in which such use does not interfere with the Administrator's marketing obligations. The record of this proceeding clearly demonstrates that BPA's assumed limitations on intertie usage interfere with the Administrator's ability to market his surplus power. The DSIs believe that the Administrator has no choice but to comply with the law--however, if he chooses to assume that he will not assert his priority access to the

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13 Id.

14 The Ninth Circuit expressly adopted this position in Rockridge v. Lincoln, 449 F.2d 567, 571 (1971).

intertie, he may not charge his power sales customers who do not benefit from that decision to forego the Administrator's rights.

Congress' insistence that BPA use the Federal transmission system for marketing its own resources first has been long standing and consistently reiterated in every piece of marketing legislation that has specifically dealt with BPA. Since the Bonneville Project Act, the Administrator's primary obligation has been to market power which was surplus to the Government's needs for power. As indicated, each statute dealing with the Administrator's use of the transmission system has made clear the Administrator's obligation to use the transmission system to market the surplus. Each of these statutes should be read together as having the same purpose. It is assumed that whenever the legislature enacts a provision, it has in mind previous statutes relating to the same subject matter. Allen v. Grand Cent. Aircraft Co., 347 U.S. 535, 98 L. Ed. 933 (1954). Thus Congress can be presumed to have intended, in enacting the Regional Preference Act, the Transmission System Act and the Regional Power Act that the longstanding requirement that the Administrator market his resources so as to achieve the lowest possible rates consistent with sound business principles be achieved. That requirement is completely harmonious with the express statutory requirement that the Administrator use the transmission system first to market his own resources.

BPA is developing an intertie access policy. 48 F.R. 33515. It must assume, as it develops these rates, that it will

correctly apply the law when it develops its policy and market its entire surplus firm resources before applying the Exportable Agreement (BPA Contract No. 14-03-73155).

BPA must recognize that nothing in the Exportable Agreement prevents BPA from selling its own surplus firm resources before applying the Exportable Agreement—nor could it. If the Exportable Agreement were interpreted as requiring BPA to wheel competing nonfirm energy for others if BPA had not marketed its own firm resources first, the contract would be unlawful as not complying with the statutes. In any event, the Exportable Agreement cannot be read as having that effect because the agreement only applies to "Exportable Energy" as distinguished from the firm surplus power which BPA has available for sale.

BPA has inquired, in this case, whether the parties would support a surcharge to intertie rates to reflect that Northwest utilities competes with BPA for limited available intertie space and thus cost BPA revenue. While the DSIs believe BPA's study contained in BPA-17 (Lost Revenue Analysis), as revised in Mr. Wedlund's rebuttal testimony, BPA-48R, is correct, and provides good evidence of the cost of BPA's failure to assert its priority access to the intertie, BPA reaches the wrong conclusion. BPA should not seek to be paid for interference with its statutory rights; it should engage in preventive medicine by assuming that it will assert its intertie rights aggressively. Naturally, if BPA refuses to assert its rights, it should seek to be made whole from those who benefit—and must recognize that the

DSIs may not be allocated unsold surplus costs in order to benefit other utilities.

6. BPA Lawfully May, and Should, Do Away with Its Nonfirm Spill Rate

From the beginning of this case, BPA has indicated that it is considering abandoning the spill rate. Ex. BPA-32, pp. 55-56. The DSIs strongly endorse the idea as one which will bring revenue stability to BPA and do away with the distress sale mentality that has pervaded BPA's nonfirm and surplus firm marketing in the past. Ex. DS-13, pp. 3, 6, 14, 16. Virtually all the rest of the Northwest parties favor the elimination of the spill rate as an alternative that is cost justified. Ex. PG-01, p. 64; Ex. WW-01, p. 55; Ex. NW-7, 7-8; Ex. PA-08R, pp. 18-21. This option is lawful and in fact necessary for BPA to implement if it is to keep its rates overall the lowest possible consistent with sound business principles. The notion, inherent in the California parties' defense of the spill rate, that any one rate schedule has claim to the lowest possible rates, is absurd. Such an argument only assures that all other rates will not be as low as possible.

It is apparent that doing away with a spill rate is consistent with cost of service principles. In 1981 Bonneville adopted a nonfirm rate form which assumed that operation of thermal resources caused nonfirm energy availability. Nevertheless, BPA built in a floor rate that it estimated would prevail during two-thirds of the time. As a result, BPA failed to recover a

DIRECT SERVICE INDUSTRIES, INC.
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August 19, 1983

Ms. Donna L. Geiger,
Public Involvement Manager
Bonneville Power Administration
P. O. Box 3621
Portland, OR 97208

Dear Donna:

Views of the Direct Service Industries on Bonneville Power Administration's proposed Intertie Access Policy (your July 15, 1983 memorandum) are succinctly stated in Bruce Mizer's testimony (Exhibit DSI-13 pages 7 and 8) in the ongoing rate case. These views (Attachment 1) are summarized at lines 9 through 14 of page 8 of the testimony as follows:

> "...BPA cannot commit intertie capacity to others so long as there is any surplus firm or nonfirm power available to the Administrator that has not been marketed. BPA's aggressive assertion of its rights to the Federal Transmission System is an important element of a sound marketing policy with respect to surplus firm power and nonfirm energy."

This topic is more fully addressed in the DSI's Prehearing and Opening Briefs in the rate case, copies also attached. The Opening Brief cites specific statutes in concluding (page 84, lines 2 through 5, Attachment 3) that:

> "...BPA not only can, but must use available, uncommitted capacity in the intertie, first to market its own power before it has any obligation or right to use its transmission to wheel other's power...

BPA Identified Issues

With respect to the issues BPA has identified, our comments are:

1. How can BPA best determine the amount of intertie capacity, if any, which is excess to the Government's needs?

BPA should apply the same kind of logic to firm wheeling over the intertie as it has applied to other firm power marketing

decisions. That is, in determining the amounts of firm capacity available for non-BPA transactions, BPA should analyze its own firm needs for intertie capacity in the future. To the extent there is firm capacity available in the future which reasonably will not be needed to support BPA's own potential need (firm capacity, firm energy, exchange) such capacity should be available for use by other regional entities. In addition, such rights should be subject to BPA substitution of nonfirm energy at the highest appropriate rate in the event such use of transmission is inconsistent with BPA's overall marketing program as indicated in Bruce Mizer's testimony at p. 7, lines 17 through 23 as follows:

> "All utilization of the Federal share of the intertie system for other than Federal purposes should be conditioned upon the right of BPA to interrupt and displace such transactions in the event that they (BPA) make firm sales of their own surplus. Further, this same condition should be applied with respect to the transmission of Federal nonfirm energy."

2. How can BPA best provide access to Northwest intertie capacity which is excess to the Government's needs?

Excess intertie capacity (not needed for federal power) should be made available in accordance with a policy designed to attain the policy goals of PL 88-552 and PL 96-501. That is, it should be used to assure that the region makes maximum economic use of power from the federal system and that the Pacific Northwest is provided with an adequate and economic power supply. But this should not preclude working with non-federal and nonregional entities to minimize the overall generation requirements in both regions and reduce the operation of expensive non-renewable resources, particularly those using oil and natural gas as a fuel.

3a. What consideration should BPA require to grant transmission rights to intertie capacity otherwise needed by the Government?

BPA's policies for such use of intertie facilities should be reviewed from time to time to reflect changed conditions and federal marketing needs. Any contracts executed should provide for reopening over time (not more than five years) to reflect such revised policies. Such revisions should be limited to revisions which can be accommodated without undoing the overall economics which were originally accepted as the basis of the firm wheeling.

Charges for intertie use, whether for firm or nonfirm sales, should reflect BPA's "costs" associated with non-federal use of intertie capacity. This might be done in a manner similar to that proposed by BPA in the ongoing rate case for nonfirm intertie wheeling; i.e., BPA's "costs" would include its

estimated revenue loss associated with wheeling for others in lieu of making sales of federal system power.

3b. How should the rights of other entities, such as parties to the Exportable Agreement, be considered?

The Exportable Agreement was not intended to preclude BPA's use of the intertie capacity for firm transactions; BPA's firm surplus sales should in no way be inhibited by provisions of that agreement. And, as indicated in response to 3a above, BPA should establish charges for those using the intertie under the Exportable Agreement that recover for the benefit of BPA's ratepayers all "costs" of granting non-Federal intertie use. Further, when the Exportable Agreement terminates at the end of 1986 any replacement agreement should fully reflect and accord with BPA's marketing policies.

4. What priorities should be established by BPA in providing intertie access for deliveries from the Pacific Northwest to the Pacific Southwest?

BPA must retain first and sole priority for intertie access for the benefit of all of its customers. To do otherwise would result in "substantial interference with his (the Administrator's) power marketing program" (Section 9(i)(3), PL 96-501). Any other priorities should provide benefits to BPA equivalent to its direct use of intertie capability. The ratepayers of the Pacific Northwest are obligated to repay BPA's overall investment in these facilities and should be afforded priority in use over nonregional entities.

5. What terms of service should BPA offer for transmission on the intertie?

We believe this question is answered in responses to the foregoing questions, if we understand thrust of your question.

Other Issues

There are a number of additional pending matters that BPA should consider, and if possible resolve, in development of its intertie access policy. Among these are:

- Portland General Electric Company's long term rights to intertie capacity. (We understand there may be disagreement between PGE and BPA on respective rights of the parties after expiration of the current agreement on exchange of capacity in the Grizzly-Malin and John Day-Grizzly line sections.)

- Overall intertie capacity available for scheduling. (Will the current 2500 mW limit on the AC line be maintained or will this be increased to the planned 3200 mW.)

- Potential for new intertie lines and their impacts on near and longer term BPA marketing policies.

We appreciate this opportunity to comment, and look forward to BPA's draft policy on intertie access.

Sincerely yours,

Brett Wilcox
Executive Director

BW:pl
Attachment

Washington Water Power

W. Lester Bryan
Vice President
Power Supply

January 15, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, OR 97212

Subject: BPAs Draft Long Term Intertie Access Policy and the Intertie Development and Use Draft Environmental Impact Statement

Dear Ms. Geiger:

The Washington Water Power Company (WWP) is an investor-owned utility whose business includes the generation, transmission, distribution and sale of electricity in the Inland Northwest. Our business directly affects over 250,000 individual retail customers and commercial accounts -- each contributing an important element to the economic health of our region. The service WWP is able to provide relies in large part upon the operational and economic balances provided by inter-regional energy transfers made possible by the existing Intertie. In the interest of continuing economic and reliable service, we submit the following comments on the Draft Long Term Intertie Access Policy (LTIAP) and the Intertie Development and Use Draft Environmental Impact Statement (IDU-DEIS).

These comments include an overview of WWP's concerns in this matter followed by specific comments and a recommended Alternative Policy as Attachment 1. These comments will serve to supplement WWPs earlier comments on these issues which are included for reference as Attachment 2. The Alternative Policy was written by Mr. Merrill Schultz and will be submitted as part of the Intercompany Pool comments.

GENERAL COMMENTS

Since 1968 when the Intertie was built, most Northwest generating utilities have benefited by using the Intertie to do business with California utilities. These benefits have been possible because the Intertie was built and has been largely operated with the intent and purpose that it make efficient use of resources in the Pacific Northwest and California and provide an equitable distribution of benefits for both regions. Today, however, BPA is proposing to significantly change the manner in which the Intertie is operated - changes which would be to the detriment of many Northwest utilities and their customers.

Based on current revenue problems, BPA intends to restrict Intertie access for any transactions that have the potential to adversely impact BPA revenues. While this concern is understandable, BPA must recognize that every utility in the region is feeling the financial pressures of a depressed economy. A self-serving approach to drafting guidelines for Intertie use places the effectiveness of long-term regional policy at risk to satisfy what are likely to be near-term difficulties.

BPAs role is to serve the region as a whole and the federal transmission system was built with this role in mind. However, BPA is now proposing a policy that benefits one customer group at the expense of another. Public agency customers would benefit by having lower rates while other Northwest utility customers would face rate increases to cover resource additions or forgone transactions with the Southwest due to BPA policy. Intertie Access must be granted on a fair and equitable basis to all Northwest Scheduling utilities.

The disparity in BPAs approach is further highlighted in the IDU-DEIS. The "need" for policy is not just to manage energy transfers, as BPA has stated, but to do so in an equitable, nondiscriminatory manner with the least negative impact to all concerned. BPA and the region will benefit more from a cooperative approach to fulfilling this need rather than addressing the single purpose motivation of the current proposal.

In its 1980 Final Role EIS, BPA identified its goals and obligations with respect to operating the Intertie. At the time, BPA stated they could be most effective for the region by promoting the "one utility concept," thereby minimizing the need for duplication of transmission facilities and ultimately achieving electric system efficiencies. BPA concluded these regional benefits would flow

from reliable inter- and intra-regional transmission interconnections. Now with the present proposal, BPA is setting aside its prior conclusions and a history of regional commitments dating from the 1960s for Intertie use. BPA was correct in its 1980 assessment - in the absence of reliable federal transmission, other power generators will pursue alternatives.

BPA should live up to the commitments made in the 1960s for Intertie use. Ignoring those commitments may relieve some short-term problems but will not pay off in the long run. The Northwest utilities need to work together and not against each other. The following comments and proposals reflect our efforts at presenting an Intertie Access Policy that is fair to all parties using the Intertie and is consistent with the existing laws and prior commitments.

DRAFT LTIAP COMMENTS

The definitions provided in the Draft LTIAP leave much to be desired. While some definitions are lacking, others flow from a misinterpretation of BPAs own obligations under federal law. Still other definitions needlessly complicate the policy leaving issues of major concern open to interpretation. Our specific concerns are presented below and recommendations to clarify these inadequacies are presented in the Alternative Policy (Attachment 1).

DEFINITIONS

"Administrator's Power Marketing Program." This term, as used in the Draft LTIAP, in Section C.3.a.(1), places the LTIAP and Section 9 (i)(3) of the Pacific Northwest Electric Power Planning and Conservation Act (Regional Act), in direct conflict with the Federal Columbia River Transmission Act (Transmission Act) and Public Law 88-552 (Preference Act). (See the testimony of W. L. Bryan - Attachment 2.) The phrase, "Substantial interference with the Administrator's Power Marketing Program" as used in Section 9(i)(3) of the Regional Act broadens other utilities rights to Intertie access and does not place additional limits on access as claimed by BPA. (See comments on Conditions For Intertie Access relating to this standard.)

"Assured Delivery." Making Assured Delivery subject to a determination of the Administrator pursuant to subsection I.3. exceeds the authority of the Administrator. (See our comments on Conditions for Intertie Access relating to fish and wildlife.)

"BPA Resources," "Entity," "Existing Extraregional Resources," "Existing Pacific Northwest Resources," "Qualified Extraregional Resources," "Qualified Pacific Northwest Resources," "Resource." These definitions are confusing and should be replaced by "Extra-regional Utility" and "Regional Utility" as defined in the attached Alternative Policy (Attachment 1). BPAs definitions attempt to limit Intertie access based on characteristics of specific resources. This unnecessarily complicates the policy. The distinction between an Extraregional Utility and Regional Utility is much easier to make and preserves regional rights to the Intertie. In addition, the proposed allocation method described later under "Formula Allocation Methods" fairly allocates the Intertie between firm and nonfirm use and thereby eliminates the need for BPAs numerous resource definitions which attempt to accomplish the same objective.

"New Hydroelectric Plant." This definition is not needed in the LTIAP. (See our comments on Conditions for Intertie Access relating to fish and wildlife.)

As defined in the attached Alternative Policy, "Intertie Coordinating Agreement" should be added to the definitions section. This Agreement is described in Section G of the Alternative Policy (Attachment 1).

Also, as defined in the Alternative Policy, "Southwest" and "9(i)(3) Priority Sales" should be added to the definitions section.

CONDITIONS FOR INTERTIE ACCESS

Decrementing Allocation Discriminatory

The Draft LTIAP states that an Entity may request access to the Intertie through the Scheduling Utility whose control area contains the Entity's resource. Under most conditions, such Entities will have a PURPA resource, the of output which is contracted to the Scheduling Utility. The Draft LTIAP then allows the Scheduling Utility's request for Assured Delivery or an allocation to be decremented by an amount equal to the capacity of the Entity's resource, if the Administrator determines it to be in conflict with certain of BPAs own fish and wildlife standards. This aspect of the Draft LTIAP unfairly discriminates by denying the Scheduling Utility access because of fish and wildlife concerns at the Entity's resource over which the Scheduling Utility has no control. This aspect of the policy must be rectified.

Fish and Wildlife Controls Unauthorized and Unneeded

We object to the link between Intertie access and the impact a particular hydro resource may have on fish and wildlife whether owned by a Scheduling Utility or an Entity. BPA cannot serve as the "supplemental regulatory tool" sought by some fishery interests.

Congress has not granted BPA any authority whatsoever to make judgements on the appropriateness of any project operation or act upon such determinations independent of due process. The rationalization put forth in the Draft LTIAP to justify provisions allowing imposition of BPA-decided sanctions against operators (who otherwise are in compliance with federal, regional, state, and local requirements) are not explicitly supported by the Regional Act or any other law. In fact, nothing in the Regional Act is intended to affect existing law or impose new obligations on existing projects operating under such laws (Section (4)(h)(1)(b)). BPAs activities under this law are not excepted. Moreover, the Regional Act specifically directs the Administrator to "recognize and not abridge the authorities" of existing nonfederal entities concerning the distribution, use of electricity, or the operation of generating facilities (Section (4)(g)(2)(c)) (emphasis added). Imposition of Draft LTIAP fish and wildlife sanctions would directly contradict these provisions. In late 1986, Congress made substantive revisions to the Federal Power Act especially strengthening fish and wildlife requirements. With these recent changes, the Federal Energy Regulatory Commission remains the only federal agency empowered to regulate water resource developments and operations.

In any event, the need for such additional control over nonfederal projects has not been substantiated. The existing licensing and regulatory mechanisms adequately protect and balance fish and wildlife and power among other interests. More importantly, these well-established mechanisms assure the essential element of due process for all interested parties. All existing nonfederal generating resources were developed and now operate under a myriad of federal, state, and local statutes, licenses, permits, recommendations, and other provisions which serve to balance all of the public interests. For nonfederal hydroelectric projects, procedures to revise an existing license or affect the terms of a new or initial license are clearly established. The Federal Energy Regulatory Commission is the only agency authorized to impose such requirements on licensee's to better balance and address public interests. Draft LTIAP provisions allowing for independent judgement of the issues by BPA would defeat the

public interest purposes of these legal proceedings. Like others in the region, BPA should rely upon existing regulatory mechanisms and abide by the results rather than attempt to create new or duplicative steps which serve only single interests and override due processes.

As stated in the IDU-DEIS, the Draft LTIAP flows from a need for effective management of energy transfers over the Intertie. A properly written policy can serve as an appropriate transmission management tool. However, including supplemental regulatory methods for fish and wildlife interests will only serve to confuse the purpose of this policy, weaken its effect, and result in wasted human resources arguing over this unusual precedent. That this would indeed establish a precedent for discretionary denial of even more important BPA services cannot be overlooked - or accepted.

The law is clear that BPA is not authorized to implement the fish and wildlife provisions suggested in the Draft LTIAP. More importantly, the need for such additional control over project operations on behalf of fish and wildlife and the inadequacy of existing processes have not been established. If there is a concern over the influence of a project upon BPA endeavors, then BPA like others can choose to participate in established processes to represent its interests. With regard to the determination BPA must make in this matter, the presumption of compliance remains appropriate unless and until a conclusion to the contrary is sustained by proper authorities.

Substantial Interference Standard Misinterpreted

Another condition for Intertie access stated throughout the Draft LTIAP provides that a resource will gain access only if providing such access does not cause "substantial interference with the Administrator's Power Marketing Program." BPAs use of this phrase from Section 9(i)(3) of the Regional Act in the Draft LTIAP is out of context and therefore incorrect. This section of the Regional Act broadens BPAs obligation to provide transmission services to other utilities. In contrast, BPAs proposed use of the Power Marketing Program as justification to exclude other Northwest parties from potential California markets would benefit one customer group at the expense of another. The laws, however, require Intertie access be granted on a fair and equitable basis to all Northwest utilities. Section 9 of the Regional Act clearly provides that BPA is to continue to provide transmission services - without certain restrictions if there is no consequence to BPAs firm power requirements (Section (9)(d)), without discrimination

to independent developers (Section (9)(d)), and with mandated priority to projects existing on the date of the Act (Section (9)(i)(3)).

While "substantial interference to Bonneville's Power Marketing Program" may limit the practicability of BPA providing the required services (just as would contracts or facility operating limitations), it is not cause for outright denial of BPAs obligations. The "Substantial interference" clause is a standard which would control significant interference; it does not prohibit all interference. To best meet its mandates under the Regional Act, BPA must work with other Northwest power generators to provide the required services while minimizing negative effects on all parties. Presently the one-sided interpretation of the Act will result in policy language too inflexible to accomplish BPAs legal mandates to provide equitable, nondiscriminatory transmission service.

Denying Independent Transmission Developer Access Inequitable

Another condition for Intertie access requires any Scheduling Utility or Entity that has access to any utility within the Southwest market by contractual or ownership rights to non-BPA transmission facilities to use the capacity of such facilities prior to receiving any access to BPA Intertie capacity. We do not agree with this restriction. For example, we may at some time in the future obtain transmission to San Diego via the proposed Inland Intertie. It does not make sense to restrict Water Power from doing business with PGandE over BPAs Intertie until WWP has utilized its own transmission to do business with other utilities within the Southwest market, such as San Diego. Such a policy unfairly discriminates among Scheduling Utilities for use of the Intertie. The policy should be modified to require prior use of independent transmission facilities only when access is required to the same Southwest utility.

South to North Transfers Are Not Addressed

South to North transfers are not addressed in the Draft LTIAP. Such transfers may play an important part in future transactions between the Northwest and Southwest and should be dealt with in BPAs LTIAP.

Section C of the Draft LTIAP, "Conditions for Intertie Access," has been redrafted in the attached Alternative Policy (Attachment 1), and rectifies concerns and the failings of the Draft LTIAP listed above.

INTERTIE CAPACITY RESERVED FOR BPA

Intertie Capacity Must Not Be Reserved For Unknown Future Transactions

Under this section of the Draft LTIAP, BPA has proposed reserving Intertie Capacity sufficient to transmit BPAs surplus firm power and FD-Supported Sales. In addition, BPA intends to reserve sufficient capacity to perform its obligations under existing and any future BPA contracts. No one knows how much total Intertie Capacity BPA will need since this determination is linked to unknown future contracts. No one knows if there will be any capacity left over after BPA establishes a reserve for their surplus power. Such reservations may be to the exclusion of other Northwest utilities without justification considering BPAs obligations to provide transmission service as discussed above.

As shown in Section D of the Alternative Policy (Attachment 1), reference to unknown future BPA transactions should be removed. BPA must reserve Intertie Capacity for new firm contracts only after the contract has been executed. In addition, Intertie Capacity must be reserved for Section 9(i)(3) Priority Sales as provided by the Regional Act and should be included in the BPA Reservation.

ASSURED DELIVERY FOR INTERTIE ACCESS

Use of Exhibit B Is Flawed

For each Scheduling Utility, a maximum amount of Assured Delivery based on the utility's average firm energy surplus is shown in Exhibit B of the policy. BPA intends to apply this limit to all requests for Assured Delivery.

WWP has been skeptical of the use of Exhibit B since it was introduced under the existing Near Term Intertie Access Policy. The purpose of this exhibit is to limit the amount of Assured Delivery access and thereby balance the transactions on the Intertie between firm and nonfirm use. We contend the use of Exhibit B has some serious flaws. First, a Scheduling Utility is allowed Assured Delivery only if the utility has a firm energy surplus. There are no allowances for the utility in load/resource balance that wishes to obtain Assured Delivery for a seasonal exchange or a capacity sale. While this issue is identified in the IDU-DEIS (Section 2.2), the Draft LTIAP does not address the concern. In addition, BPA is using Exhibit B to regulate and

judge utility planning. The ability of a Scheduling Utility to maintain a firm transaction with the Southwest should not concern BPA. BPAs only interest in this area would be the demands placed on BPA by its customers. The Scheduling Utility must determine the best way to manage its resources and this ability is judged by the appropriate regulatory bodies.

More Equitable Method Available

One solution to balancing Intertie use between firm and nonfirm transactions uses an existing allocation method which has not been evaluated by BPA in the present proposal. This better method is now being applied in the Firm Transmission Agreement between Water Power and BPA for the delivery of exchange power to Southern California Edison. The allocation goes into effect at times when the Intertie is being allocated according to the Exportable Agreement. If WWPs allocation under the Exportable Agreement is insufficient to supply its obligation to SCE, then WWP has the option to purchase a portion of BPAs allocation at the applicable BPA nonfirm rate to support the delivery.

This method should be applied to all Assured Delivery contracts under the LTIAP to the benefit of all parties. This approach would work not only under Condition 1 when the Exportable Agreement is in effect, but also when Condition 2 of the proposed policy is in effect. There would be no need for Exhibit B and seasonal exchange contracts would not conflict with BPAs efforts to sell their surplus. This proposal would also make the policy easier to understand and implement. A more detailed description of the proposal can be found in Section F of the Alternative Policy (Attachment 1).

The Alternative Policy also lists three conditions that a firm contract must satisfy before that contract will be granted Assured Delivery. The conditions can be found in Section E of the Alternative Policy and they apply to all types of firm contracts compared to BPAs Draft LTIAP which lists conditions only for firm power sales.

Assured Delivery for Seasonal Exchanges Cannot Be Denied

The Draft LTIAP does not allow for Assured Delivery for seasonal exchange contracts until BPA is within a planning horizon of load/resource balance. Until load/resource balance is reached, firm sales are essentially the only type of new contracts that would be considered for Assured Delivery. BPA alleges three major disadvantages of exchanges to BPA: (1) Exchanges eliminate access to the heavy load hour markets in the Pacific Southwest

without decreasing the overall Pacific Northwest surplus; (2) Exchanges bring energy back to the Pacific Northwest during light load hours, thereby increasing operational problems in the Pacific Northwest; (3) Seasonal exchanges return energy to the Pacific Northwest during the winter, thereby increasing BPAs surplus and probability of spill. These concerns are without foundation.

In regard to (1), there are two types of markets to analyze: the firm market and the nonfirm market. BPA has argued that exchanges would compete with BPAs firm sales. The assertion by BPA that these two types of transactions compete is based on the assumption of a limited California market. BPA claims that an exchange contract with a capacity of 150 Mw would eliminate an equivalent amount of market available for firm sales. This claim may not be true. First, there are no assurances that a Southwest utility would purchase firm power from BPA on a long-term basis assuming the policy would not allow access for exchanges. The Southwest could purchase from or exchange with utilities east of California or they could decide to build their own resources rather than purchase from BPA.

BPA has claimed exchanges interfere with their marketing efforts but fails to make the same claim about other firm sales made by other non-Federal utilities. There is no question that firm sales of non-Federal utilities are in direct competition with BPA firm sales. How does BPA justify providing Assured Delivery for firm sales and refusing Assured Delivery for exchanges?

The nonfirm market and exchanges should also be analyzed. The nonfirm market can be preserved by using the provision in the BPA-WWP transmission agreement allowing delivery of exchange power to SCE as discussed earlier. This provision would preserve BPAs access to heavy load hour nonfirm markets by allowing the utility with a firm contract to purchase part of its allocation from BPA. There is another benefit to this allocation method. As described in Section G of the Alternative Policy (Attachment 1); If BPAs allocation is reduced by virtue of other parties' Assured Delivery, and to the extent BPA is able to schedule substantially its reduced allocation, BPA may sell energy up to the amount of the reduction in allocation, to the parties' whose Assured Delivery exceeds its preliminary allocation, at the average price of the energy which BPA was actually able to sell its reduced allocation. This assures BPA an additional guaranteed sale that otherwise may have been rejected by the Southwest. The energy is also sold at an average price

when the actual incremental sales rate would be lower than the average.

We question BPAs concern with competition for a limited market. By refusing Intertie access for exchanges, BPA is essentially allocating the market. If we have a market less than the capacity of the Intertie, why is the Intertie being expanded?

In regard to items (2) and (3) above, most exchange energy is delivered during heavy load hours in the summer and returned in heavy load hours in the winter. Exchanges export the same amount of energy in the summer as they import in the winter. Therefore, exchanges do not increase BPAs surplus and do not increase the probability of spill.

Given all of the arguments above, our overall concern is with BPAs obligations under existing law. The House and Senate Reports which accompanied the Preference Act state:

> "...the Secretary may not decline to enter into a wheeling agreement merely because he may have energy available for sale to serve the same load."

It is clear that BPAs proposed treatment of exchanges under the Draft LTIAP violates the Preference Act.

We again emphasize that the Intertie is a regional resource with benefits to be shared by all Northwest ratepayers. One of the primary justifications for building the Intertie was the economic benefits obtained in the Northwest and California from diversity exchanges. Diversity exchanges avoid the need for expensive peaking resources in both regions. BPA states the return of exchange power to the Northwest would adversely affect BPAs Power Marketing Program by providing power to serve regional loads which otherwise would have been BPA loads. If BPA is attempting to force Water Power to buy its winter power needs from BPA by refusing Assured Delivery for seasonal exchanges, we question BPAs legal right to implement the LTIAP. We would not buy power from BPA under such conditions.

BPAs Obligations are Defined in Existing Laws

Part 7 of Section E in BPAs draft policy addresses BPAs obligation to serve Pacific Northwest load under the Scheduling Utility's Power Sales Contract with BPA. However, this language conflicts with Section 9(c) of the Regional Act. BPAs obligations are

defined in existing statutes. These obligations cannot be redefined by the LTIAP or any other administrative action.

FORMULA ALLOCATION METHODS

BPAs New Condition 1 Is Unnecessary

Under the Near Term Intertie Access Policy, Condition 1 applies when allocation under the Exportable Agreement is in effect. BPA proposes to establish a new Condition 1 when the Exportable Agreement expires on December 31, 1988. The new Condition 1 would be in effect when the Federal system is in spill or in likelihood of spill, as determined by BPA. Also, each Scheduling Utility's allocation would be limited by the ratio of the Scheduling Utility's hydroelectric capacity multiplied by the total of all allocations.

Condition 1 is needed only at times when the Intertie is allocated according to the Exportable Agreement. After the Exportable Agreement expires, there would be no need for the proposed Condition 1 since the existing Condition 2 and Condition 3 would allocate Intertie Capacity under all market conditions on a fair and equitable basis. Using hydroelectric capacity to limit allocations would place unfounded limits on a Scheduling Utility's transactions and could leave portions of the Intertie unloaded. BPA would also have a difficult time justifying any rate above a hydro cost-based rate for its nonfirm energy when the Federal system is in spill or in likelihood of spill.

Section F of the Alternative Policy (Attachment 1) describes a workable set of allocation methods. The new allocation proposal described earlier is also addressed in detail. A thorough review of this proposal will demonstrate its workability, fairness and obvious advantages over the Draft LTIAP now under review.

A new Section G "Intertie Coordinating Agreement" is included in the Alternative Policy. This Agreement will help further define the terms for an equitable balance between Assured Delivery and nonfirm use of the Intertie.

ACCESS FOR EXTRAREGIONAL UTILITIES

Reciprocal Rights Must Be BPAs Priority

Under the Draft LTIAP, Assured Delivery for Canadian resources would be considered only after an increase in Intertie Capacity to approximately 7900 Mw. Limited access could be granted to

Canadian utilities under Condition 2 but would be conditioned on Canada providing improved system coordination or operations with the Northwest. Since BPA transactions would have the highest priority under the proposed policy, any access provided for Canadian utilities would impact other Northwest utilities and not BPA. Other utilities, therefore, have a major interest in any benefits BPA would receive from the Canadian utilities in return for additional Intertie access. Our concerns on this matter are addressed in Sections H and I of the Alternative Policy (Attachment 1). In return for granting Assured Delivery to a Canadian Scheduling Utility, BPA and other Northwest utilities must be assured reciprocal use of the transmission systems of the Canadian Scheduling Utility.

IDU-DEIS COMMENTS

Hydro system efficiency has been an objective of Northwest hydroelectric operators for decades, with the Pacific Northwest Coordination Agreement being a milestone to this effort. While allocation, distribution, and point-of-use for the resulting electricity may vary, the system operation is always to optimize production and minimize waste. Additions to transmission capacity will not and cannot appreciably alter already optimized Northwest hydroelectric system operations. Under present circumstances, a similar conclusion results for transmission use policies. No impacts of consequences are likely to result.

There is an exception not considered by the EIS. In Section 2.2.2.3, BPA states the continued limitation of Assured Delivery to each regional utility's existing firm surplus would be an incentive to develop conservation. We contend the limitations to access proposed in the Draft LTIAP will encourage additional construction of new generating and transmission facilities. Of course, this possibility was previously evaluated by BPA in its Role EIS of 1980. Cooperation and coordination was favored for environmental as well as social and economic reasons at that time. The Draft LTIAP viewed with this perspective would not have been proposed as now written.

We hope these comments are helpful to BPA. We have tried to present a policy that is fair and equitable to all concerned and recognizes existing laws and prior commitments. As we have said before, we are willing to sit down with BPA to discuss our proposals and find solutions to any problems that are identified.

Sincerely,

W. Lester Bryan
Vice President, Power Supply

BWG/RDW/jr

Attachments (2)

cc: Merrill Schultz - ICP

Ms. Donna L. Geiger
January 15, 1987

attachment
TIE-1-59

ATTACHMENT 1

Proposed Alternative

Long Term Intertie Access Policy

by Merrill S. Schultz

PROPOSED ALTERNATIVE LONG TERM INTERTIE ACCESS POLICY

A. Definitions

1. "Administrator" means the Bonneville Power Administrator and is used interchangeably herein with "Bonneville Power Administration" and "BPA."

2. "Assured Delivery" means Intertie transmission service provided by BPA pursuant to this policy that, for the term agreed by BPA in the transmission contract and regardless of changes of this policy, is interruptible by BPA only as a result of uncontrollable forces.

3. "Extraregional Utility" means a Scheduling Utility which serves no end-use consumer in the Pacific Northwest.

4. "FD-Supported Sales" means that portion of a firm power sale by a Regional Utility to an entity in the Southwest that is substantially equal to the Regional Utility's purchase of BPA Firm Displacement Power.

5. "Intertie Capacity" means transmission capacity of the Pacific Intertie which is controlled by BPA through ownership or contract right and available for the schedule of delivery of power between the Pacific Northwest and the Southwest.

6. "Intertie Coordinating Agreement" means a multi-party agreement intended by BPA to be established between BPA and Scheduling Utilities desiring access to Intertie Capacity, to implement certain aspects of this policy, chiefly transactions provided among BPA, Scheduling Utilities having Assured Delivery and Scheduling Utilities having allocations of Intertie Capacity under Section F hereof.

7. "Pacific Intertie" means those high-voltage (500 kV and above) transmission facilities, as designated by the Administrator, which connect the power system of the Pacific Northwest with that of the Southwest across the Oregon border with California and Nevada.

8. "Pacific Northwest" means the area defined in the Northwest Regional Preference Act (Public Law 88-552).

9. "Regional Utility" means a Scheduling Utility which serves end-use consumers within the Pacific Northwest.

10. "Scheduling Utility" means an electric utility, not including BPA, that operates an electric generation control area, together with any utility within BPA's generation control area that schedules transactions with BPA and is so designated by BPA.

11. "Section 9(i)(3) Priority Sales" means those sales designated by the Administrator as receiving priority under Section 9(i)(3) of the Pacific Northwest Power Act (Public Law 96-501).

12. "Southwest" means Extraregional Utilities that have access by ownership or contract to the Pacific Intertie, at points south of the Oregon border.

B. Term

This policy is effective on July 1, 1987, and will continue in effect until terminated or modified by the Administrator.

C. Conditions for Intertie Access

1. The Administrator will provide Assured Delivery or will allocate Intertie Capacity to BPA and to Scheduling Utilities pursuant to the conditions and procedures set forth in this policy, unless otherwise provided by the terms of contracts existing

on July 1, 1987, and listed in Exhibit C. Any Intertie transmission services provided for entities other than Scheduling Utilities or BPA must be arranged through the Scheduling Utilities, or BPA, responsible for the control of the transaction.

2. BPA will provide Assured Delivery or allocations of Intertie Capacity only for transactions of BPA and Regional Utilities, except to the extent that transactions of Extraregional Utilities are permitted access under this policy. For purposes of determining access to Intertie Capacity, Regional Utility declarations of available surplus energy shall not include amounts of energy that have been purchased from an Extraregional Utility, unless the Administrator would otherwise have provided direct access for such energy of the Extraregional Utility at such time. If the Administrator determines that energy purchased from an Extraregional Utility has been impermissibly included in a Regional Utility's declaration of surplus energy, BPA will adjust the Regional Utility's declaration accordingly.

3. The Administrator will provide Assured Delivery and allocations of Intertie Capacity to Regional Utilities and, under conditions provided in this policy, to Extraregional Utilities only when providing such access will not (a) substantially interfere with the operating reliability requirements of the Federal Columbia River Power System, or (b) conflict with legal or contractual obligations of the Administrator.

4. Any Scheduling Utility that has access to a Southwest Scheduling Utility by contractual or ownership rights in transmission capacity not included in Intertie Capacity will be required to use such rights prior to requesting access to Intertie Capacity for any transaction with the same Southwest Scheduling Utility.

D. Intertie Capacity Reserved for BPA (BPA Reservation)

BPA will reserve for its use amounts of Intertie Capacity as follows, in aggregate, but without overlap:

1. An amount sufficient to market BPA's surplus Firm Energy Load Carrying Capability, shaped seasonally and hourly as reasonably anticipated by BPA for best use
2. An amount sufficient to perform BPA's obligations under its existing contracts, as listed in Exhibit C, and its new firm power sales and exchange contracts
3. An amount sufficient to provide Assured Delivery for FD-Supported Sales
4. An amount sufficient to provide Assured Delivery for Section 9(i)(3) Priority Sales

E. Assured Delivery for Intertie Access

BPA will provide Assured Delivery appropriate to the firm power delivery requirements of qualifying Regional Utilities' contracts. For Assured Delivery not included in the BPA Reservation, the Scheduling Utility must be a signatory of the Intertie Coordinating Agreement, which will implement the provisions of this policy. It is BPA's intention to make the excess of Intertie Capacity above the amount required for the BPA Reservation, as adjusted for schedules in the direction opposite of that which may require allocation, to be made available for both Assured Delivery and formula allocation, as described in Section F below.

A Regional Utility requesting Assured Delivery for a contract must submit a copy of the proposed contract to the Administrator. The Administrator will review the contract and will, in a timely manner, inform the Regional Utility (1) of the amount of Assured Delivery which will be provided and (2) of the terms and conditions which will apply to wheeling of transactions under the contract. Assured Delivery for a contract will not be denied except if:

1. There is not sufficient Intertie Capacity remaining for Assured Delivery under the proposed contract,
2. The transactions provided by the contract are determined not to be firm transactions. A transaction will be considered firm if the contract provides the receiving party of any delivery thereunder the right to demand such delivery during the period of time specified for it, or
3. The Scheduling Utility requesting Assured Delivery is not a party to the Intertie Coordinating Agreement.

F. Formula Allocation Methods

1. The amount of Intertie capacity available for formula allocation in either direction will be the Intertie Capacity available for schedule in such direction, adjusted appropriately by the BPA Reservation. BPA will determine the amount of Intertie Capacity available for formula allocation, and will determine the allocation according to the formulas described below.

2. One of three formulas will be used to allocate the available Intertie Capacity, depending on which of these following three conditions exists:

a. Condition 1: When Exportable Energy is being scheduled pursuant to the terms of the Exportable Agreement (BPA Contract No. 14-03-73155) or a successor agreement containing substantially equivalent allocation provisions, Intertie Capacity will be allocated according to the Exportable Agreement, as modified by the Intertie Coordinating Agreement described in Section G below. The Exportable Agreement expires by its terms on December 31, 1988; if there is no successor agreement, there will be no Condition 1.

b. Condition 2: When Condition 1 is not in effect, but BPA and Regional utilities declare amounts of power available for access to the Intertie that exceed the available Intertie Capacity, the capacity will be allocated pursuant to the following procedure, as modified by the Intertie Coordinating Agreement described in Section G below:

(1) On any day the Regional Utilities observe as a normal workday, each Regional Utility will submit to BPA declarations of desired hourly Intertie schedules for the period beginning at midnight of the day of declaration and normally continuing through midnight of the next normal workday.

(2) For each hour of such declaration the Regional Utility shall also specify the portion of desired schedule which is an Assured Delivery.

(3) BPA's and the Scheduling Utilities' preliminary allocation for each hour will be determined and will approximate the ratio of each declaration to the sum of all declarations for each hour multiplied by the available Intertie Capacity.

(4) For each Regional Utility whose preliminary allocation is less than its Assured Delivery, its allocation will be increased to equal its Assured Delivery. The difference will be reflected first in BPA's allocation, to the extent that BPA has a preliminary allocation, and then, if necessary, in the allocations of Regional Utilities, pro rata, whose preliminary allocations exceed their Assured Deliveries.

c. Condition 3: When Condition 1 is not in effect, and when BPA and Regional Utilities declare power available for access to the Intertie in an amount that does not exceed the available Intertie Capacity, BPA's and each Regional Utility's allocations will be equal to their declarations.

G. Intertie Coordinating Agreement

1. It is BPA's intent to negotiate an Intertie Coordinating Agreement among itself and Regional Utilities to permit Regional Utilities a beneficial and equitable balance between Assured Delivery and formula allocation access to the unreserved portion of Intertie Capacity.

2. The Agreement will provide that, to the extent any party's allocation under Condition 1 or Condition 2, described above, is reduced by virtue of other parties' Assured Delivery, and to the extent that such party could have disposed of its preliminary allocation, such party may sell energy for such hour, up to the amount of the reduction in allocation, to the party(ies) whose Assured Delivery exceeds its preliminary allocation.

3. A party will be determined to have been able to dispose of its preliminary allocation if it is able to schedule substantially its reduced allocation.

4. The price of the energy will be the average price, at the source, of the energy which the selling party was actually able to sell over its reduced allocation.

H. Access for Extraregional Utilities

1. Extraregional Utilities will not be granted Assured Delivery, except as provided in the contracts shown in Exhibit C or as provided in Section I below.

2. Prior to the expiration of the Exportable Agreement or its successor, if any, access under Condition 1 is limited by the terms of said Agreement to its signatories. Except as provided in Section I below, Extraregional Utilities will not receive an allocation of Intertie Capacity under Condition 2. Under condition 3, Extraregional Utilities will have access to the Intertie to the

extent that Intertie Capacity is available in excess of the capacity used by BPA and Scheduling Utilities, except as provided in Section I below.

I. Special Provisions for Canadian Scheduling Utilities

1. Canadian Scheduling Utilities will be granted Assured Delivery only by contract with BPA. Such contract must include assurance of benefits to BPA and Regional utilities such as increased availability of storage transactions and improved coordination of system operations, to a level similar to that which exists among Regional Utilities and BPA. In addition, such contract must contain provisions assuring BPA and Regional Utilities reciprocal use of the transmission systems of the Extraregional Utilities which are parties. Such Assured Delivery will also be conditioned on an increase of total Intertie transfer capability to an amount greater than 7500 MW.

2. BPA may, by contract, provide Canadian Scheduling Utilities limited access to Intertie Capacity under Condition 2, described above. Such access, however, would be conditioned on the Canadian Scheduling Utilities' participation in the Pacific Northwest's coordinated planning and operation to a greater extent than in the past.

3. Under Condition 3, Canadian Scheduling Utilities will have access to the Intertie to the extent that Intertie Capacity is available in excess of the capacity used by BPA, Regional Utilities and U.S. Extraregional Utilities.

J. Exhibits

ATTACHMENT 2

Previous Comments By

The Washington Water Power Company

On Intertie Access

1. Testimony of W. Lester Bryan at the public comment meeting on BPAs Draft Long Term Intertie Access Policy, dated December 10, 1986.
2. Letter to Donna Geiger from Les Bryan, RE: Comments on the "Discussion Paper of Major Issues in the Development of the Draft Long Term Intertie Access Policy," dated April 4, 1986.
3. Letter to Donna Geiger from Gregory Prekeges, RE: Revised Near Term Intertie Access Policy, dated March 13, 1985.
4. Letter to Donna Geiger from Les Bryan, RE: Short Term Intertie Access Policy, dated August 9, 1984.
5. Letter to Donna Geiger from Les Bryan, RE: Intertie Access Policy Discussion Paper, dated March 14, 1984.
6. Letter to Donna Geiger from Gregory Prekeges, RE: BPA Intertie Access Policy, dated August 9, 1983.

Attachment
TIE-1-59

Testimony of

W. Lester Bryan
Vice President, Power Supply
The Washington Water Power Company

at the Public Comment Meeting on
BPAs Draft Long Term Intertie Access Policy

Portland, Oregon

December 10, 1986

The Pacific Northwest-Pacific Southwest Intertie was completed in 1968. Congressional intent in authorizing the Intertie was to make efficient use of resources in the Pacific Northwest and California and to provide an equitable distribution of benefits for both regions. Two important pieces of legislation were approved by Congress which govern the use of the Intertie. They are the Regional Preference Act, passed in 1964, and the Federal Columbia River Transmission System Act, passed in 1974. Both of these laws address the use of BPAs transmission system for both Federal and non-Federal utilities. Section 6 of the Preference Act states:

> Any capacity in Federal transmission lines connecting, either by themselves or with non-Federal lines, a generating plant in the Pacific Northwest or Canada with the other area or with any other area outside the Pacific Northwest, which is not required for the transmission of Federal energy or the energy described in Section 9, shall be made available as a carrier for transmission of other electric energy between such areas.

The House and Senate Reports which accompanied the Preference Act, included the following excerpt explaining Section 6:

> ..the Secretary may not decline to enter into a wheeling agreement merely because he may have energy available for sale to serve the same load.

Section 6 of the Transmission Act states:

> The Administrator shall make available to all utilites on a fair and nondiscriminatory basis, any capacity in the Federal transmission system which he determines to be in excess of the capacity required to transmit electric power generated or acquired by the United States.

When the Intertie was built in the 1960's, Water Power had the opportunity to own part of the line to assure access to the California market. However, we determined that obtaining firm transmission through contractual arrangements with the owner of the Intertie would be a better and more economical alternative. At the time, we were assured our contractual rights to Intertie access would be preserved by passage of legislation like the Preference Act and the Transmission Act. Our 20-year transmission agreement with BPA for service to San Diego Gas & Electric is an example of the type of service we depend on and are entitled to. Based on BPAs draft policy, we have made a mistake by assuming our contractual rights to the Intertie would be preserved.

Because of Bonneville's lack of consistency in transmission policy we must seriously consider maintaining our independence from BPA in future decisions related to transmission.

Water Power's primary concern with the draft policy is the lack of firm Intertie access for exchanges. Exchanges are a vital part of our resource portfolio. We currently have an exchange agreement with Southern California Edison which is due to expire in 1990. Both parties would like to extend the Agreement, however, BPA has denied us transmission. We also are close to completing a 20-year exchange agreement with Pacific Gas and Electric. This agreement is scheduled to begin in 1991, however, based on the draft policy, we will not be eligible for Assured Delivery.

The Transmission Act and Preference Act clearly require that excess capacity on the Intertie be made available by BPA to Northwest utilities for transactions with Pacific Southwest utilities, including seasonal exchanges. BPAs claim that capacity can be denied for exchanges because these transactions would substantially interfere with its Power Marketing Program is both factually and legally incorrect.

BPAs reliance upon Section 9(i)(3) of the Regional Act as a legal shield to prevent exchanges is misplaced. Section 9(i)(3) broadened other utilities rights to Intertie Access by requiring wheeling even if there was some interference with sales by BPA so long as the interruption of BPA transactions was not substantial. Utilities always had the right to enter into seasonal exchanges using the Intertie under the Transmission Act and the Preference Act. To construe Section 9(i)(3) as a limitation on these rights incorrectly places the Regional Act in direct conflict with earlier statues which were not repealed or amended. The proper construction of Section 9(i)(3) is that utilities rights to services from BPA and BPAs responsibility to provide those services were expanded to include not only cases of excess capacity but also cases where there was some minimal interference with BPAs own sales.

To prevent any interference with BPAs marketing plans perceived to be caused by seasonal exchanges, we propose the same allocation method as used for Water Power's exchange with Southern California Edison. This method is an important part of the existing firm transmission agreement between Water Power and BPA for the delivery of exchange power to Southern California Edison. The method applies under Condition 1 of the Near Term Policy when the Intertie is allocated according to the Exportable Agreement. We suggest this allocation method should apply to all Assured Delivery contracts under Condition 1 until expiration of the Exportable Agreement and should also apply under Condition 2 of the proposed policy. After the Exportable Agreement expires, there would be no need for Condition 1. Here is a brief description of how the allocation would work:

If a utility's allocation is insufficient to supply their firm obligation for which they have Assured Delivery, the utility would have the right to displace a portion of BPAs or another utility's nonfirm sale in order to maintain the firm delivery. The utility would purchase such displaced energy at an average price reflecting current market conditions. This would allow the parties to remain whole. BPA and other utilities with nonfirm would sell their surplus and the utility with Assured Delivery would maintain their firm transaction. Under this allocation method, seasonal exchanges would not conflict with BPAs efforts to market their surplus. This approach would therefore balance Intertie use between firm and nonfirm transactions and thereby eliminate the need for Exhibit B.

We hope to obtain regional support for this proposal. We are also prepared to sit down with BPA to discuss the proposal and find solutions to any problems that are identified. Water Power is not the only utility interested in seasonal exchanges. Many other Northwest utilities also share our concerns about preserving our rights to the Intertie to assure our customers a fair share of the benefits they are entitled to.

Gregory Knitegos
file

The Washington Water Power Company

attachment
TIE-1-59

W. Lester Bryan
Vice President
Power Supply

April 4, 1986

Ms. Donna L. Geiger
Public Involvement Manager
P.O. Box 12999
Portland, Oregon 97212

Subject: "Discussion Paper of Major Issues in the Development of the Draft Long Term Intertie Access Policy (IAP)."

Dear Ms. Geiger:

We submit the following comments on the "Discussion Paper" issued March 11, 1986. Our comments refer to specific issues raised in the "Discussion Paper." Other issues raised in the paper but not commented on by us are not an indication of our support or disapproval of the issue. We intend to submit a more comprehensive set of comments on the Draft Long Term IAP after it is released for public review. We understand BPA will not issue a draft Long Term IAP until all comments on the "Discussion Paper" have been considered.

Balancing Intertie Use Between Assured Delivery and Nonfirm Access

BPA refers to the Agreement between Water Power and Southern California Edison (SCE) in its discussion about the Exportable Agreement. If Water Power's allocation under the Exportable Agreement is insufficient to supply our obligation to SCE, we have the option to purchase a portion of BPA's allocation at the applicable BPA nonfirm rate to support the delivery. We continue to endorse this concept as a method of providing for Assured Delivery while preserving nonfirm access. However, we emphasize that the utility with Assured Delivery should not be required to purchase portions of BPA's and other utilities' formula allocations, but should have the option to make the purchase or the option to deliver only the utility's allocation of the intertie capacity.

Currently, Condition 1 is in effect under the Near Term IAP and Intertie Capacity is being allocated according to the Exportable Agreement. The agreement specifies an hourly allocation based on a determination of Southwest Exportable Energy needs. The Southwest Exportable Energy needs are currently determined at a price specified by BPA. Although this method may provide BPA with an allocation large enough to satisfy its marketing needs, the Intertie has been unloaded in the past few months due to the limited market at the Exportable price. Other Northwest parties are willing to sell and California parties are willing to buy at lower prices; however, the Exportable Agreement does not address this scenario. At the time the Agreement was written, it was assumed the Southwest would buy whatever Exportable Energy was available. This problem should be solved now and should also be addressed in the future when the Exportable Agreement terminates. We suggest the parties to the Exportable Agreement should attempt to solve this problem before additional revenue is forgone in both the Northwest and California.

BPA refers to the Exportable Agreement and suggests adoption of the basic provisions of the Agreement in the Long Term IAP as a policy without contractual renegotiation among multiple entities. This proposal has merit only if we could be assured the policy and associated provisions would not be changed at some point in the future. The only way to ensure performance is by use of a signed contract. We envision a number of long term, firm agreements with utilities in the Southwest to help defer resource additions in the Northwest. We are very concerned about an Intertie Access Policy that may change at some time in the future and thereby inhibit performance under our long term contracts. We, therefore, look forward to future agreement on specific contract provisions not dependent on future policy changes.

Assured Delivery

Constraints on Assured Delivery are determined by Exhibit B under the Near Term IAP. This method is not an appropriate method to determine Assured Delivery for firm sales. By using this method, BPA is attempting to use the IAP to regulate and judge utility planning. Not all utilities use "critical water planning." (In the future, some utilities may deviate from historical planning concepts.) The public or private utility must determine the best way to meet its load and the appropriate regulatory bodies oversee this function. BPA's only interest in this area would be the demands placed on BPA by its customers. Assured Delivery access should not be restricted for utilities using different planning criteria which may be optimum for them.

Throughout the text of the "Discussion Paper," BPA has given exchanges a back seat to all other types of transactions. BPA states it is concerned that non-Federal Intertie Access for

exchanges may cause substantial interference with its power marketing program and that Pacific Northwest firm energy surplus should have priority Intertie Access. First, in reference to BPA's power marketing program, keep in mind the Intertie is a regional resource with benefits to be shared by all Northwest ratepayers. One of the primary justifications for building the Intertie was the economic benefits obtained in the Northwest and California from diversity exchanges. Diversity exchanges avoid the need for expensive peaking resources in both regions. We do not dispute the idea that Northwest firm energy surplus should be granted Assured Delivery; however, we contend diversity exchanges should be given at least the same priority.

BPA states exchange deliveries made during heavy load hours may have serious repercussions on BPA's power marketing program. This statement does not make sense. Any other transaction, including firm sales, may have an impact on BPA's sales. We call this free enterprise competition. BPA's use of the power marketing program as justification to exclude other Northwest parties from potential California markets would benefit one customer group at the expense of another. BPA is advocating exclusive Federal use first, leaving the bits and pieces for other Northwest utilities. BPA customers would benefit by having lower rates while other Northwest utility customers would face unfair rate increases to cover resource additions or forgone sales due to BPA policy. Intertie Access should be granted on a fair and equitable basis to all Northwest utilities. There is no legal or equitable justification to having the benefits of the Intertie concentrated in one set of regional customers at the expense of other regional customers.

The Company is in the process of reviewing BPA's authority to deny Assured Delivery access to the Intertie for seasonal exchanges as described in Item 9, page 16 of the "Discussion Paper." Our comments are not inteded to be inclusive of all statements which might be made regarding BPA's right to deny Intertie Access to Northwest utilities. If BPA persists in its position regarding access for seasonal exchanges, the Company reserves the right to seek legal redress.

BPA suggests an energy purchase requirement for capacity-energy exchange contracts to assure Intertie capacity is utilized for energy sales. This in effect would allow a Northwest utility to market its nonfirm energy under Assured Delivery access conditions. Such a provision would be in violation of the proposed rules for Assured Delivery access. In addition, the Northwest exchanging utility may not have the energy to fulfill such an obligation.

Another provision suggested in the "Discussion Paper" would require return of capacity or exchange energy at the California/Oregon or Nevada/Oregon borders to create an additional Pacific Northwest nonfirm market. This requirement would seriously inhibit the flexibility and economics of an exchange transaction between the Northwest and California. The party returning exchange energy should have the option of returning the energy from his own system or buying from another party to save energy and wheeling costs. By requiring the replacement energy point of delivery to be the California/Oregon or the Nevada/Oregon borders, BPA would be collecting wheeling revenue for a service it did not provide.

Assured Delivery Access for Export Contracts Resulting From Sale of BPA Firm Displacement (FD) Power

BPA has identified two questions regarding Intertie Access for FD-supported sales: (1) should there be Intertie priority or special treatment for FD-supported extraregional sales since the transaction makes possible the disposition of Federal surplus; and (2) if special treatment is provided, should it extend to resources a utility may want to add to a sale in addition to the FD-supported portion of a sale? An FD-supported sale should receive the same Intertie priority as any other firm resource sale of similar nature. As we stated earlier, the Intertie is a regional resource and should not be used by BPA first to the exclusion of other competition within the Northwest.

Intertie Relationship to Regional Resource Planning Policy

We propose the proper use of the Intertie is for mutually beneficial commercial arrangements between Northwest and Southwest parties resulting from the diversity between the two systems. The benefits of seasonal exchanges are obvious and should be encouraged. Nonfirm will often exist due to the nature of the Northwest hydro system. Nonfirm transactions, therefore, should also be encouraged. Due to planning uncertainties, the Northwest and the Southwest will only occassionally be in load/resource balance. Therefore, to smooth out the surplus and deficient periods, firm sales and purchases should have a place on the Intertie.

BPA states the Long Term IAP may link approval of new resource access to the BPA Resource Strategy. Based on the concerns we expressed about the 1986 BPA Resource strategy (see Water Power's comments and the comments submitted by Merrill Schultz), we would not support this idea. This would be another attempt by BPA to impose illegal Federal regulation through the IAP.

The Risk to BPA to Acquire Resources to Replace Those Exported By its Customers

The sale of FD power to a Northwest purchaser is subject to withdrawal to serve regional loads. We assume the resource sale to the Southwest associated with the FD purchase would also be subject to

withdrawal. We suggest the Northwest utility should be willing to call back the exported resource before placing a requirement on BPA under their Power Sales Contract.

BPA's Fish and Wildlife Role

Water Power's position in this matter has been previously stated. The fish and wildlife responsibilities delegated to BPA by Congress do not include any authority for BPA to administratively impose requirements for and restrictions upon non-federal utilities' access to the Intertie. The BPA cannot serve as the "supplemental regulatory tool" sought by some fishery interests. In fact, the need for such additional control over non-federal projects has not been substantiated. The existing licensing and regulatory mechanisms adequately protect and balance fish, wildlife and power interests. More importantly, these well-established mechanisms assure the essential element of due process for all interested parties. In this regard, the presumption of compliance remains appropriate unless and until a conclusion to the contary for a given project is sustained by proper authorities.

Intertie Access for Canadian Power

The "Discussion Paper" focused mainly on sales of firm and non-firm Canadian power to California. Little was said about Canadian sales to Northwest utilities and how that would impact Intertie Access. This subject should be thoroughly addressed in the Long Term IAP. Potential purchases of firm power from Canadian utilities and additional Intertie capacity with Canada will play an important role in meeting future Northwest power needs.

Energy or Capacity Imports into the Pacific Northwest

BPA states the return of exchange power to the Northwest might adversely affect BPA's power marketing program by providing power to serve regional loads which otherwise would have been BPA loads. BPA has no right to use such reasoning to refuse Assured Delivery for exchanges. We are obligated to obtain a reliable source of power to meet our customers loads at the lowest cost. Based on the uncertainties in BPA's rate structure, exchanges (or even combustion turbines) are better choices compared to the New Resources rate.

Refusing Assured Delivery access for exchanges until the Region approaches load/resource balance may be beneficial to BPA; however, this policy would seriously harm utilities that could benefit from exchanges now.

General

BPA should consider the impact of the proposed Intertie expansion on Intertie use. Rates and cost are tied together. Over expansion of the Intertie and the resulting increase in unit cost could send the Intertie into a "death spiral." This would be exacerbated if oil and gas prices are low, reducing margins available for transmission payments. Intertie expansion, policy and rates should be carefully coordinated to provide maximum benefits for the Northwest and equitable distribution of those benefits among all Northwest consumers.

We hope these comments are helpful. We suggest BPA seriously consider our arguments on Assured Delivery access for exchanges and our other comments before publishing the draft Long Term IAP.

Sincerely,

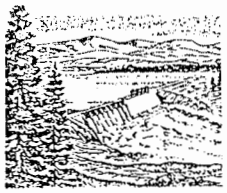
Gregory Prekeges

for W. L. Bryan
Vice President, Power Supply

BG/11

cc: Paul Redmond
Gregory Prekeges
Merrill Schultz - ICP

Attachment
TIE-1-59



GREGORY P. PREKEGES
MANAGER, RESOURCE PLANNING
AND CONTRACTS

THE WASHINGTON WATER POWER COMPANY

Electric and Natural Gas Service

P.O. BOX 3727 • SPOKANE, WASHINGTON 99220 • (509) 489-0500

March 13, 1985

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212

RE: Revised Near Term Intertie Access Policy

Dear Ms. Geiger:

This letter is in response to your January 31 request for comments on the Revised Near Term Intertie Access Policy. The Washington Water Power Company uses the Pacific Northwest-Southwest Intertie on a daily basis and is keenly interested in any policies that would affect its use. We submit these comments for your consideration and we also support the comments of Merrill Schultz, Director of the Intercompany Pool.

Section II.C.3. states that intertie access will be granted as long as such access does not substantially interfere with the Administrator's Power Marketing Program. This section gives too much discretion to the Administrator. The current definition of the Administrator's Power Marketing Program is so broad that virtually any access could be construed to interfere with BPA's marketing policies. It is evident from Section I.A. that Bonneville's marketing efforts have been greatly enhanced by the Near Term Policy. The allocation process is working fairly for all parties including Bonneville. Therefore, section II.C.3. is unnecessary and should be eliminated.

Adverse impacts on fish and wildlife are also addressed in section II.C.3. It is currently unclear how this section would be applied. The Administrator should not have the unilateral authority to determine if a resource has an adverse impact on fish and wildlife and deny the resource intertie access on that basis. We again emphasize that such concerns should be addressed in State and Federal licensing procedures. Another layer of regulation in this forum is redundant and unnecessary.

Section II.D. describes the procedures for qualification of a new contract for Assured Delivery. For some reason, Bonneville contracts are exempt from this procedure. For consistency and fairness, utility and Bonneville contracts should be subject to meeting the same qualifying conditions. This section also states that Assured Delivery will not extend beyond September 30, 1986 for new contracts. Such a stipulation makes it impossible for Northwest utilities to secure long term agreements with the Southwest in the interim.

The economic override section still appears to be a burdensome and impractical policy to administer. Market conditions will dictate a price that is beneficial to both the buyer and seller and thereby encourage transactions to occupy available intertie capacity. Therefore this section should again be eliminated from the policy.

Thank you for the opportunity to comment on the Revised Near Term Policy. We look forward to continued participation in the development of a Long Term Intertie Access Policy.

Sincerely,

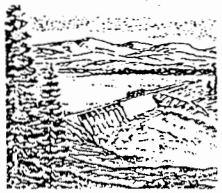
Gregory P. Prekeges

Gregory P. Prekeges
Manager, Resource Planning
and Contracts

BG:wpc

cc: Merrill Schultz
ICP Committee

Attachment
TIE-1-59



THE WASHINGTON WATER POWER COMPANY

Electric and Natural Gas Service

P O BOX 3727 • SPOKANE WASHINGTON 99220 • (509) 489-0500

W LESTER BRYAN
Vice President
Power Supply

August 9, 1984

Ms. Donna Geiger
Public Involvement Officer
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

Subject: Short-term Intertie Access Policy

Thank you for the opportunity to comment on BPA's draft "short-term" Intertie Access Policy. In general, it appears that BPA's formula for allocating intertie capacity of both firm and non-firm surplus could be an equitable solution to a very difficult problem. We are awaiting actual experience with the policy to determine if the formula is indeed a workable solution to the problem of intertie access. The Company would like to go on record with the following concerns related to application and implementation of the proposed policy:

1. Fish and wildlife provisions (Section II.C.6) - The processes associated with "policing" this section of the policy would be complicated, administratively burdensome (both for BPA and others), and of questionable practical value. The Company suggests that all reference to fish and wildlife provisions be deleted and that BPA instead concentrate its efforts on assuring compliance with the Regional Plan's fish and wildlife provisions through participation in the licensing of new resources.

2. Firm contracts (Section II.D.6) - We are somewhat puzzled by BPA's insistance that firm intertie access should not be allowed for capacity exchange or purchase agreements with the Southwest. These types of agreements allow for a more efficient utilization of resources by both regions. In addition, it is unclear why BPA is unwilling to grant firm access to surplus which may be displaced by the Exportable Energy Agreement since such a contract provision would allow BPA to reduce its own surplus.

3. Economic over-ride (Section II.D.2.d) - This provision appears to be highly impractical and therefore should be eliminated from the policy.

4. Firm contract replacement (Section II.D.1.b.(5)) - Replacement of firm capacity or delivery of obligation energy at the Oregon-California or Oregon-Nevada border is not acceptable. Such a provision would allow BPA to collect a double wheeling charge under certain conditions for what is essentially a zero net schedule. Such a provision is not cost justified since there is no impact on the federal transmission system which can support this provision.

In conclusion, the Company would urge BPA to develop a coherent guideline for operating under the short-term Intertie Access policy. Without some operating guidelines, it is impossible to fully assess the impact the new policy will have on the Company. We feel a six month interim adoption period for the short-term policy is not adequate to gain operating experience for all resource conditions that might be encountered. A one year period would seem to be more appropriate.

In addition to the above comments, TWWPCo is in agreement with the comments made by Merrill Shultz of the ICP.

Sincerely,

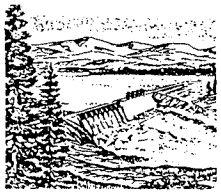
W. L. Bryan
Vice President
Power Supply

SVF/lh

bc: W. Satre
P. Redmond
D. Olson
T. Newman
G. Prekeges
M. Shultz, ICP
ICP Committee

Greg

Attachment U. TIE-1-S 9



THE WASHINGTON WATER POWER COMPANY

Electric and Natural Gas Service

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W. LESTER BRYAN
Vice President
Power Supply

March 14, 1984

Ms. Donna L. Geiger
Public Involvement Officer
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

Subject: Intertie Access Policy Discussion Paper

Thank you for the opportunity to participate in the development of BPA's proposed Intertie Access Policy. The following comments are TWWPCo's response to the Discussion Paper (TIE-1) circulated by BPA. The Company's comments do not attempt to answer all discussion questions, however, the following questions are of particular concern:

(3) May BPA grant firm or nonfirm access to the Intertie if providing that service substantially interferes with the Administrator's power marketing program?

- BPA discussion of this question appears to place blame on the non-Federal users of the Intertie for BPA's inability to collect projected revenue requirements from sales of surplus power under the established SP-1 or SE-1 rates. This was due to Northwest utilities selling their surplus power for less than BPA's established rates. TWWPCo feels that any "surcharge" or other artificial means of making BPA power rates more competitive with other Northwest utilities is not acceptable. BPA should concentrate its efforts on establishing surplus power rates for Federal resources that are more competitive with those being offered by other utilities in the Northwest. In addition, BPA should make more reasonable estimates of revenue requirements to be derived from sales of surplus power to the Southwest.

(4) How could BPA establish a policy which would provide Intertie transmission to utilities without substantial interference with the Administrator's power marketing program?

- The BPA's discussion makes reference to TWWPCo's Southern California Edison wheeling contract as a potential model for firm wheeling contracts on the Intertie. This contract serves the dual purpose of providing the BPA with firm wheeling revenues while at the same time providing an outlet for BPA's allocation of nonfirm energy during periods when the Exportable Agreement is in effect. Such an agreement would allow Northwest utilities to enter into firm power sales agreements with California utilities. Power sold under firm arrangements would bring more revenue into the Northwest than would nonfirm sales and would therefore benefit the Region. In addition, firm contracts would allow non-Federal entities to more efficiently plan for and operate their resources.

(7) Should BPA apply conditions to other entities for obtaining Intertie access?

- Denial of Intertie access to utilities who do not comply with the Regional Council's Plan is not an appropriate method to promote such compliance. Rather, the Council should be responsible for assuring compliance with the Regional Plan through ongoing involvement with utility resource planners. Use of the Intertie as a tool to financially punish a utility (and its rate payers) after significant capital has been spent on a facility that does not comply with the Plan is not in the best interests of the Region.

(11) How should BPA Intertie policy interact with the administration of the Exportable Energy Agreement?

- The Exportable Energy Agreement has proven to be of value to the Region over the past few years. Substantially altering the Agreement should not be undertaken unless all parties would benefit (not just BPA). Again, firm Intertie wheeling similar to that provided for in TWWPCo's wheeling contract to Southern California Edision could serve as a model for an agreement that is consistant with the Exportable Energy Agreement.

Some general comments on the proposed Intertie Access Policy:

1. This proposed policy should avoid provisions that would deny access to the Intertie when unused capacity is available. This would result in situations where California oil and gas is burned because a Northwest utility is denied access to the California market. Such a provision in the policy would not be in the best national interest.

2. Any firm Intertie contract format that might result from this policy should contain provisions for two-way Intertie wheeling. This would allow more efficient and flexible use of the Intertie by all parties.

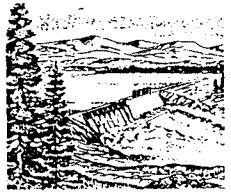
In addition to the above comments, TWWPCo is in agreement with the comments made by Merrill Shultz of the ICP.

Sincerely,

W. Lester Bryan
Vice President
Power Supply

SVF:jk

bc: W. Satre
P. Redmond
D. Olson
G. Prekeges
T. Newman
M. Shultz, ICP
ICP Committee



GREGORY P. PREKEGES
MANAGER, RESOURCE PLANNING
AND CONTRACTS

THE WASHINGTON WATER POWER COMPANY

Electric and Natural Gas Service

P.O. BOX 3727 • SPOKANE, WASHINGTON 99220 • (509) 489-0500

August 19, 1983

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, OR 97212

RE: BPA Intertie Access Policy

Dear Ms. Geiger:

This letter is in response to your July 15 request for recommendations regarding the Pacific Intertie. As a member of the Intercompany Pool (ICP), we are in complete agreement with the recommendations as submitted by the Director of ICP, Merrill Schultz.

We would like to emphasize one of the recommendations that Mr. Schultz submitted. It is to maintain the principles of the Exportable Energy Agreement. The Washington Water Power Company (WWP) believes the Exportable Energy Agreement has been and is a worthwhile and beneficial Agreement, and should be extended when the original Agreement terminates. Firm capacity can be provided and rights under the Exportable Energy Agreement protected as was done in our Southern California Edison contract with Bonneville. This could become a standard part of all intertie wheeling arrangements.

Another recommendation that we would propose is to supply two-way wheeling between parties on a firm basis. This has been a benefit to the utilities and the Region by exchanging power when it is excess to our systems for power in the periods of the year when the Northwest is experiencing its greatest need. Peak-energy exchanges and load factoring service could be a part of these firm arrangements. This, then, is a Regional benefit by providing firm contractual resources to meet loads in the Northwest.

In regard to transmission rates, the rates should be based on cost and reflect the type of service offered. Rates should be consistent with the

service offered. In other words if full use of the intertie is not provided in the wheeling agreement, then fully allocated cost should not be charged.

We hope that you will include WWP in future discussions as relating to Intertie policy, as we have a definite interest in the outcome.

Sincerely,

Gregory Prekeges
Manager, Resource Planning
and Contracts

DY:wpc

cc: Merrill Schultz
Don Felgenhauer

DEPARTMENT OF THE ARMY
NORTH PACIFIC DIVISION, CORPS OF ENGINEERS
P.O. BOX 2870
PORTLAND, OREGON 97208-2870

REPLY TO
ATTENTION OF

Environmental Resources

Anthony R. Morrell
Environmental Manager
Bonneville Power Administration
PO Box 3621
Portland, Oregon

Dear Mr. Morrell:

We have reviewed the Draft Environmental Impact Statement (DEIS) for the Intertie Development and Use and are furnishing you general comments in this letter with specific comments being attached as an enclosure.

The discussions in the DEIS should make it clear that intertie capacity or access policy do not govern how the Corps of Engineers operates projects. The multipurpose nature of our projects are the prime determinates in project operation. Given this fact, we suggest that the DEIS clearly state the assumptions behind the operational criterion used to estimate the environmental consequences of alternatives. It should be made clear that the Corps of Engineers will not alter operation of Corps projects without first doing detailed, site specific assessments of impacts on all project users.

We also found no mention of potential impacts to the project purposes of flood damage reduction and navigation. The document appears to concentrate only on project impacts to fish and wildlife resources, irrigation, and recreation. Since operation for flood damage control and navigation are equally important to power production and other uses, this omission should be corrected.

BPA's proposed intertie access policy includes a specific restriction on intertie access for existing hydroelectric facilities and new hydroelectric resources that have adverse impacts on fish and wildlife. We do not feel that a restrictive intertie access policy of this nature is the proper avenue for addressing fish and wildlife concerns. Appropriate means already exist to assess whether existing or future hydroelectric resources should be constructed or operated differently. Some examples of existing safeguards are the FERC license process, individual project EIS's, and the Power Councils' Power Plan and Fish and Wildlife Plan. These other processes can fully recognize the national benefits vs BPA's regional viewpoint. The tradeoffs

between power, flood control, navigation and fish and wildlife are all considered under these other screening criteria, which is not done with BPA's proposed access policy. Such a restrictive policy would put BPA in a unilateral management position which is not the intent of existing law. Furthermore, BPA would be forced into the untenable position of having to identify the source of every KW that a utility may want to transmit on the intertie.

The impact analysis, found on page 4.5-16, 1st para., states that the 1985 spill plan will be revised to the 1986 plan for the final EIS. Appendix C, table C.3, shows the bypass fish guidance efficiencies (FGE) used in the analysis. These FGE's assume that the new bypass system will be installed at Lower Monumental, Ice Harbor and The Dalles. The Corps is currently evaluating the feasibility of installing these bypass systems. However, we do know that the 1986 spill plan will not be implemented in the long term if all the Corps dams have bypass systems. It is not clear whether both spill for fish and fish bypasses were assumed at these projects in the analysis. It is our opinion that the impact analysis in the EIS should assume either (1) bypass systems are installed at Lower Monumental, Ice Harbor, and The Dalles and no 1986 spill plan; or (2) the 1986 spill plan with no additional bypass systems. The existing approach in the EIS tends to overstate both the existing losses of power to spill and fish survival at the three dams in question.

We note that the power values used in the analysis do not adequately reflect the recent extreme drop in oil prices. The final EIS should include the most current values and consequently the net benefits of different alternatives could change substantially.

We appreciate the opportunity to review and comment on this document.

Sincerely,

James R. Fry
Colonel, Corps of Engineers
Deputy Division Engineer

Enclosures

Attachment
TJE-1-60

North Pacific Division Comments
Bonneville Power Administration's
Draft Environmental Impact Statement
Intertie Development and Use
January 14, 1987

1. The intertie would increase the export of power to California. Since thermal power has not developed as anticipated, intertie loading must be supported by hydropower, primarily by additional drafting of headwater reservoirs, such as Libby, Hungry Horse, and others. This would result in increased provisional drafting during the winter and impaired reservoir refill during the spring. A detailed analysis of this type of impact is not included in the DEIS and is essential.

2. The DEIS suggests that there would be greater reservoir drawdowns at Libby Project as a result of the intertie. Consequently, minimum flows of 3000 cfs during refill would occur more often which would have adverse impacts downstream. These impacts would reduce the probability of complying with measure 804(a)(7) in the Northwest Power Planning Council's Fish and Wildlife Program. In addition the report indicates greater peaking would occur during the day which would adversely affect the sport fishery.

3. The potential for spill is greater resulting in more frequent occurrences of higher levels of nitrogen supersaturation.

4. Section 4.5, Environmental Consequences-Water Quality and Fish. The discussion of potential impacts provides a reasonable description of the increases in the probability of significant changes to downstream salmonid migrants. Unfortunately the reader cannot interpret how the changes in probabilities translates into loss of adult fish. Suggest providing an additional description, by species and location, of how an occurrence of a "significant impact" would reduce the number of returning adults.

5. Table 4.5.18 and related discussions. The report tries to determine the significance of potential impacts based on the recent trends in escapement for various species and locations. It should, however, be recognized that 1986 fish runs were substantially higher than past trends in many areas and that numerous programs and hatcheries are being implemented over the next few years. We suggest expanding this table to reflect changes in fish runs expected in the next few years.

6. The proposed plan will apparently affect salmon and steelhead. The DEIS should address any impacts on Indian treaty fishing rights.

7. Greater fluctuations in Lake Rufus Woods will increase erosion resulting in more exposure of archeological sites such as Indian graves.

North Pacific Division Comments
Bonneville Power Administration's
Draft Environmental Impact Statement
Intertie Development and Use
January 14, 1987

8. Will cultural resources effects of Bonneville Power Administration (BPA) intertie capacity or policy decisions be addressed by BPA, or by the individual project owners? If the latter, how will project owners be compensated for required mitigation efforts stemming from BPA policy decisions?

9. The discussion of proposed mitigation measures in Section 4.7.5.4 is largely inappropriate since it is assumed that mitigation, if required, will occur within the context of individual agency cultural resources programs, and reflect the priorities of existing cultural resource management plans of project owners.

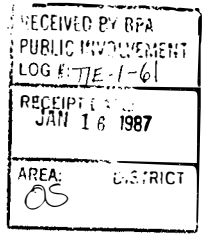
10. It may be appropriate to identify the elements of a proposed interagency Memorandum of Agreement that would provide funding support to project owners to accomplish appropriate mitigation. This would be in place of the interagency cultural resources management plan proposed on page 4.7-13. Individual project cultural resources management plans are the proper place to address mitigation measures, priorities, and data recovery plans.

11. The DEIS is not clear regarding the effects different alternatives would have on the operations of Libby Dam Project or Chief Joseph Project . The DEIS should specifically identify what impacts can be expected at each project.

12. Since BPA intertie capacity and/or policy decisions may affect cultural resources sites and fish resources, it is likely that Native American groups have concerns about treaty rights and sacred or religious sites that should be addressed in the DEIS. A plan for Native American consultation on these issues should be discussed.

ANDREA BEATTY RINIKER
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000



January 14, 1987

Ms. Donna Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212-0999

Dear Ms. Geiger:

Thank you for the opportunity to comment on the draft environmental impact statement for the "Intertie Development and Use". Staff of the Department of Ecology reviewed the EIS and have no comments to offer.

We circulated the EIS to other state agencies and received comments from the Office of Archaeology and Historic Preservation. A copy of their letter is enclosed for your information. The Department of Fisheries also has comments on the EIS but indicated they would send their comments directly to you.

If you have any questions, please call the appropriate agency or me at (206) 459-6025.

Sincerely,

Barbara J. Ritchie
Environmental Review Section

BJR:

cc: Robert Whitlam, Archology
Kevin Bauersfeld, Fisheries

attachment
TIE-1-61

RICHARD I. THOMPSON
Director

STATE OF WASHINGTON

DEPARTMENT OF COMMUNITY DEVELOPMENT
OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION

111 West Twenty-first Avenue, KL-11 • Olympia, Washington 98504-5411 • (206) 753-4011 • SCAN 234-4011

November 13, 1986

Ms. Barbara Ritchie
NEPA Coordinator
Dept. of Ecology
Mail Stop PV-11
Olympia, WA 98504-8711

Log Reference: 838-F-BPA-07
Re: Intertie Development and Use
DEIS

Dear Ms. Ritchie:

A staff review has been completed of the above referenced draft environmental impact statement. We concur with the identification of a potential adverse effect on National Register or National Register eligible properties within the state of Washington. We recommend that the Advisory Council on Historic Preservation be contacted and a programmatic memorandum of agreement (cf. 36 CFR 800.13) be developed consistent with the mitigative measures identified in Section 4.7-5.4.

Please feel free to contact us should you have any questions. We look forward to further consultation as this undertaking progresses.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(206) 753-4405

dw

cc: Robert Fink

COWLITZ COUNTY PUD • ELECTRIC AND WATER SERVICE

960 COMMERCE AVENUE • BOX NO. 3007 • LONGVIEW, WASHINGTON 98632 • TELEPHONE 206 423-2210

January 10, 1987

Donna L. Geiger
Public Involvement Manager
P. O. Box 12999-ALP
Portland, OR 97212

Dear Ms. Geiger:

Ref: Long Term Intertie Access Policy - SJ-L2

This letter is Cowlitz County PUD's (Cowlitz) response to your letter request of October 22, 1986 for comments on the Proposed Long Term Intertie Access Policy (LTIAP).

In addition to the general concerns expressed below, Cowlitz also supports the comments submitted by the Public Generating Pool utilities and the Pacific N. W. Utilities Conference Committee.

Bonneville's Intertie Access Policy will, to a large degree, dictate the use of the PNW-PSW intertie in the future. In order to maintain the sharing of benefits of this regional resource between all northwest utilities, we believe the LTIAP should strike a balance between the need to market Bonneville's surplus and the needs of the utilities to have access to the intertie for their own nonfirm and firm surplus. We believe this balancing of benefits requires some form of reservation of a specific amount of capacity for nonfirm that would afford utilities reasonable access to the southwest market.

Another specific concern we have is the continued firm access to the intertie for the contracted long term sale of Longview Fibre Company cogenerated energy to Western Area Power Administration (BPA Wheeling Contract No. DE-MS79-85BP91952). We view this long term commitment as being very important to Bonneville, the Company, Cowlitz PUD and to WAPA customers in the southwest. During this period of increasing costs and declining loads and revenues it seems vitally important for Bonneville and its customer utilities to take whatever actions are necessary and reasonable to maintain regional loads such as the 45 average megawatts represented by the Longview Fibre sale to WAPA; particularly, since loss of firm access to the intertie would result in a loss of significant wheeling revenue in addition to the firm load loss. It is our understanding the draft LTIAP provides for continued firm access for this contracted firm sale and we support Bonneville in maintaining this provision in the proposed policy.

Thank you for the opportunity to comment.

Yours very truly,

J. Leon Smith
Power Manager

Seattle Audubon Society

Washington Nonprofit Corporation
[illegible] • Seattle, WA 98[illegible] • 206 622 [illegible]

January 14, 1987

Donna L. Geiger, Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212

Dear Ms. Geiger:

The Seattle Audubon Society is an organization of 4,500 members which is dedicated to the protection and preservation of fish and wildlife and their habitats, and to the the conservation and wise use of energy, water, and natural resources. Our members have been active in regional energy planning issues, and we would like to comment on the Proposed Long-term Intertie Access Policy (IAP) and draft Environmental Impact Statement (EIS).

Fish and Wildlife provisions--The assumption in I(3) that all "Qualified PNW Resources" are being operated consistent with laws and licenses, and that their operation or access to the Intertie will not have adverse impacts to the environment is not valid. Especially in light of the fact that the energy from a given resource is impossible to trace once it goes onto the grid, the provision of positive proof that access to the Intertie has potentiated environmental harm is an almost impossible task. BPA's fish and wildlife responsibilities might better be met by adopting a "negative standard", that is, assuming environmental harm in the absence of proof otherwise. In effect this would entail a certification that the resources of a scheduling utility meet BPA's standards. It should then be assumed that the energy of a non-certifiable resource in a utility's portfolio would be melded into the grid and would thereby become available for transmittal over the Intertie: to meet this problem, the scheduling utility's available portion of Intertie capacity should be reduced by an amount commeasurate to the energy provided by non-certified resources. This policy would accomplish the stated aims of BPA to prevent the Intertie from being used to subsidize environmentally damaging resource development and operation, provide a positive incentive to develop and operate only environmentally sound and maintained resources, and provide a means of addressing the problem of separating bad resources from the overall energy grid.

The proposed conditions in C(3) and I(3) represent an improvement over the conditions in the short-term IAP, but we believe that a process such as the outlined above would be a much superior and a more efficient tool for the accomplishment of BPA's environmental protection objectives.

BPA obligation to serve PNW load (Section E 7)--We agree that BPA should not have the obligation to serve load generated by overcommittment to long-term sales over the Intertie as a result of miscalculation, mismanagement, or greed. BPA should require a signed "waiver of obligation" embodying this principle from all utilities as a condition of access.

Extraregional and Canadian Resources (Sections G and H)--We agree that assured delivery and access should not be granted to such resources unless all other regional obligations are met. Furthermore, such resources should meet at least as high a standard of environmental review and protection of the environment as do resources in the Pacific Northwest. Northwest utilities should have a "opportunity of first refusal" on any power sales to the Southwest (analogous to Canadian controls on importation of power). The power marketing programs of Northwest utilities, as well as BPA, should receive protection from substantial interference from Canadian and extraregional entities.

Assured Delivery for non-BPA Exchange Transactions--The draft IAP does not provide for firm access for seasonal and capacity/energy exchanges. We believe that such exchanges could be in the interest of both regions, and that BPA should help to bring mutually advantageous exchanges about, especially if they are used to promote the development of our region's conservation potential and the prolongation of the surplus (see below).

We are supportive of the alternative discussed in Section 2.2.3.2 of the EIS, "Firm sales from new resources after the region reaches load/resource balance". The guarantee of assured access and delivery only to firm surplus would act as an incentive to utilities to develop their conservation potential in order to prolong (or even increase) their firm surplus, and to facilitate conservation transfer between utilities.

The EIS should analyze the effect of various access policies and expansion proposals on the competitive position of Northwest businesses.

BPA should endeavor to avoid putting Northwest businesses at a disadvantage through the unconsidered sale of surplus power.

The economics section of the EIS (4.8) does not discuss many of the assumptions which entered into the analysis. In particular, it is our understanding that a high level of firm sales is implicit in the benefits listed for the combined Intertie expansion alternative. If this is so, it seems likely that below some level of firm sales the combined alternative will no longer be economically attractive. The EIS should conduct this analysis.

We appreciate the opportunity to comment on these documents.

Sincerely,

Richard Butler
President

OREGON ENVIRONMENTAL COUNCIL
2637 S.W. Water Avenue, Portland, Oregon 97201
Phone: 503/222-1963

January 14, 1987

Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

RE: Proposed long-term policy controlling access to "the Intertie"

Dear Ms. Geiger:

There are some aspects of the proposed policy which the Oregon Environmental Council (OEC) finds to be good proposals. They are a start in the direction of a sound policy and we applaud the BPA for including them. Specifically they are:

(1) BPA will limit access to existing Northwest resources (generators that were operational on September 7, 1984) unless at least two major transmission upgrades are completed, and will permanently bar hydropower resources that would have a substantial adverse effect on fish and wildlife "or otherwise substantially interfere with the obligations of the Administrator under the Pacific Northwest Power Act to adequately protect, mitigate or enhance fish and wildlife including taking into account at each relevant stage of decision making processes to the fullest extent practicable the Fish and Wildlife program adopted by the Northwest Power Planning Council pursuant to the Pacific Northwest Power Act."

(2) BPA's acknowledgement of the role conservation can play in mutually beneficial power transfers, and the creation of some economic incentives for Northwest utilities that own power plants to stretch their surplusses by investing in conservation.

OEC does suggest some improvements to the plan:

(1) The plan needs to take the Northwest's ratepayers off the hook for imprudent California sales by individual utilities. The entire region could be forced to serve as the safety net for imprudent long-term sales to California by private utilities. The best way to prevent this is for BPA to condition transmission access

for other utilities' long-term sales on a waiver of any BPA obligations to replace part or all of the power involved.

It is in the BPA's own fiscal interests to shield its finances and its ratepayers from raids of this kind -- particularly when the raiders are competing with BPA itself for California sales.

(2) Let conservation compete for export payments. There should be a way for utilities to invest in efficiency improvements and sell the power they save to California. As matters now stand, they have to own or build a power plant to be included. We would like to see in the EIS that BPA has investigated and developed ways to ensure that conservation can compete on equal terms with power plants for California revenues.

(3) BPA needs to investigate and plan for ways to reduce coal related pollution from current export sales. 14 coal fired power plants accounted for a substantial share of Northwest exports to California over the past four years. BPA needs to investigate whether there are environmentally preferable alternatives to current operating patterns. Immediate remedial action is needed.

(4) The EIS assumes that California utilities' current shares of Northwest exports will continue. There may be enviromentally preferable allocations, and BPA has a responsibility under the National Environmental Policy Act to investigate those possible allocations.

In addition to reviewing the plan, OEC has reviewed the comments of the Natural Resources Defense Council and find them to be very sound. OEC urges the Bonneville Power Administration to integrate them and the above comments into the policy.

Sincerely,

John A. Charles
Executive Director

JAC/bm

THE FRIENDS OF THE GREENSPRINGS
16309 Highway 66
Ashland, Oregon, 97520

January 13, 1987

To: The Bonneville Power Administration
Subject: Proposed Intertie Access Policy and Draft Intertie Development and Use Environmental Impact Statement

The Friends of the Greensprings is an organization of citizens residing in and/or concerned about the Greensprings area of Southern Oregon. We are specifically affected by this PIS/IDU since our area is one location under consideration for the third AC line of the Intertie. We are generally affected by it as citizens of the Pacific Northwest concerned about the economic and environmental future of this region. The following is a list of our comments and concerns in response to the Draft EIS/IDU.

In regards to fisheries:

1) The computer program used to project the impact on fisheries was explained, but no specific information or figures used in the program were made public in the EIS. This makes evaluation by us impossible.

2) We feel that there should be an analysis of the economic impact on commercial, Indian and sport fishing industries that results from decreased fish production. Without such an analysis, the impact to Oregon cannot be known.

3) We feel that the National Marine Fisheries Service should be asked to evaluate the fisheries impact study.

4) There was no mention in the EIS of the impact of future sales on the future Fish and Wildlife plans and the economics of fishery restoration. If the Northwest Power Planning Council proposes to increase fishery production, but the Intertie sales result in decreases, there will be a large economic impact which is not addressed in the EIS.

5) There was no coordination in this EIS with the Columbia River Intertribal Fish Commission. Indian fishery issues need to be addressed.

6) In Volume 2, page 4, subsection C.3.c. and the corresponding subsection I.3.a.-g. on pages 12-14, the use of the word "substantial" in regards to impact on fish and wildlife is totally unacceptable. There is no definition of "substantial". Without definition, this is an open door policy which will protect nothing. We feel that the word should be "minimal" or "significant" and that the Oregon Department of Fish and Wildlife, the Idaho Division of Fish and Game, The Washington Division of Fish and Game, the Columbia River Intertribal Fish Commission, and the Northwest Power Planning Council should set the standards for levels of impact that can legally occur. Also, a monitoring system should be operating at each dam in order to determine actual effects on fish. In addition, the areas that the Northwest Power Planning Council has listed as areas to be protected from dam development must not be endangered by Intertie sales committments. This needs to be addressed in the EIS.

7) Was the cumulative effect of these analyses taken into account? For example, the decrease of smolt survival one year affects the number of adults in future years. This would be a steady decrease

in fish production. Was this calculated in the computer analysis? What are the environmental and economic impacts ?

In regards to other issues:

1) We see a need to recalculate the Economic analyses based on current oil and natural gas prices.

2) Why is BPA projecting 20 year long term contracts when our surplus is projected to end in 10 years? What are the long term rate implications of selling this power, committing to firm contracts, when our surplus is disappearing? If we've committed to sell cheaper hydroelectric power to the Southwest, how will Pacific Northwest needs be met when the surplus runs out? Who will pay the higher rates for alternate energy forms?

3) We question again-where are the benefits for Oregon and the Pacific Northwest? We get all the decreased fish production and increased air pollution in return for minimal profit. And, this profit can <u>only</u> come with long term contracts which <u>insure</u> the costs mentioned above. Is this in the best interest in the long term for our PNW region? We think not.

Sincerely,

Friends of the Greensprings

Teresa Giacomini

Teresa Giacomini, Board Member

San Diego Gas & Electric

January 16, 1987

Donna L. Geiger
Public Involvement Manager
Bonneville Power
Administration
P. O. Box 12999-ALP
Portland, OR 97212

RE: BONNEVILLE POWER ADMINISTRATION'S DRAFT ENVIRONMENTAL IMPACT STATEMENT; INTERTIE DEVELOPMENT AND USE AND PROPOSED LONG TERM INTERTIE ACCESS POLICY

Dear Ms. Geiger:

San Diego Gas & Electric Company (SDG&E) submits the following comments on Bonneville Power Administration's (BPA) proposed Long Term Intertie Access Policy (LTIAP) and related Draft Environmental Impact Statement (DEIS).

The Proposed LTIAP Represents A Poor Policy Choice. The proposed policy relies too heavily on administrative controls; controls that are far too cumbersome and, as a result, will be unresponsive to the marketplace. SDG&E believes such controls will stifle competition, distort prices, and inhibit cooperation.

Second, simply closing off Intertie access for economic transactions between a willing buyer and a willing seller will not ensure that transactions will be consummated with BPA. When BPA can make surplus power sales to California, it should do so. When, due to competition, it cannot or will not sell power, BPA should instead obtain revenue by providing transmission service over the Intertie.

Finally, BPA's proposed rate and transmission access policies are jeopardizing the Pacific Northwest's competitive position in the marketplace and the likelihood of further Intertie upgrades. By eliminating Intertie access for exchanges, the unique advantages of diversity (Northwest winter peaks versus California summer peaks) and generating resources (Northwest Hydro versus California fossil) are lost.

Without these advantages, other alternative resources become directly competitive with the Northwest. Be assured SDG&E has other low cost long term power purchase options from which to choose in California, the Desert Southwest, and Mexico. Many long term power purchase decisions will be made by SDG&E and other California utilities within the next two years. Intertie access to the Pacific Northwest market that is not competitive with alternative markets could leave the Pacific Northwest with a reduced opportunity to sell long term firm resources and nonfirm energy to California.

As an alternative to the proposed Long Term Intertie Access Policy, we believe BPA should develop an open access competitive allocation procedure for Intertie use. The policy should allow for the economically efficient use of generating resources in both the Pacific Northwest and the Pacific Southwest. It should allow for both regions to take advantage of load diversities between the regions in order to defer expensive new generation. The policy should not only assure BPA of a stable market and stable revenues, it should provide California utilities the opportunity to develop a stable source of reasonably priced Pacific Northwest energy.

The Proposed LTIAP Represents A Policy Choice Inconsistent With Law. Under the draft LTIAP, access to the Intertie will be provided only for power from existing Pacific Northwest resources that would not create substantial interference with the administrator's power marketing program or the operating limitations of the federal system. We have previously stated, and we reiterate here, our position that these claims of broad authority to limit access are contrary to the language and intent of existing statutory language. Section 6 of the Regional Preference Act requires that any excess capacity in the Intertie "shall be made available as a carrier for transmission of other electric energy . . . ." The legislative history of the Regional Preference Act clearly states that the administrator may not decline to enter into a wheeling agreement merely because he may have energy for sale to serve the same load. (H.R. Rep. No. 590, 88th Cong., 2nd Sess., reprinted in 1964 U.S. Code Cong. and Ad. News at 3350.) BPA cannot withhold transmission capacity because it would like to prevent another utility from competing for a potential BPA customer seeking to negotiate, for example, exchanges. Thus, Intertie access must be provided without regard to BPA's power marketing program, and Intertie access cannot be refused based on the fact that the administrator may have energy for sale to serve the same load. The Ninth

Circuit decision in Department of Water and Power of the City of Los Angeles does not detract from this position.

With regard to new resources, the LTIAP confines access to existing resources and under limited circumstances new regional resources constructed after September 7, 1984. This provision is contrary to the plain language and meaning of Section 9 of the Regional Act. Section 9(d) provides that the administrator shall provide transmission access to nonfederal power and shall not discriminate against any utility on the basis of independent development of any new resource.

Finally, the LTIAP not only is contrary to the plain language and meaning of existing statutory language, but is also inconsistent with important national pro-competitive policies developed in the antitrust laws which encourage competition as the means of achieving an efficient economy and a fair marketplace. Yet the LTIAP intentionally impairs competition in the bulk power market. The Ninth Circuit in the Los Angeles Department of Water and Power decision explicitly recognized this when it stated that the effect of the policy is to reduce competition among Northwest utilities both for Intertie capacity and for California purchasers.

In conclusion, we believe BPA, the Pacific Northwest and California utilities will be better served if BPA rejects the proposed Long Term Intertie Access Policy and develops in its place an economically efficient, mutually beneficial Intertie allocation procedure.

Sincerely,

SHARON W. MAYS
Manager-Power Contracts

/sm

cc: Stan Hulett
President, CPUC
Charles Imbrecht
Chairman, CEC
William M. Chamberlain
General Counsel, CEC
James Otero, Esq., LADWP
Mark Frazee, Esq., SCE
Stuart Gardner, Esq., PGandE
James C. Holcombe

Southern California Edison Company
P. O. BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD, CALIFORNIA 91770

ROBERT W. KENDALL
MANAGER OF POWER CONTRACTS

TELEPHONE
(818) 302-3910

January 16, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

Subject: Bonneville Power Administration
Intertie Development and Use Draft
Environmental Impact Statement and
Proposed Long Term Intertie Access Policy
Reference SJ-L2

On October 24, 1986, Bonneville Power Administration ("BPA") issued its Intertie Development and Use ("IDU") Draft Environmental Impact Statement ("EIS") and Proposed Long Term Intertie Access Policy ("LTIAP"). BPA initially established January 2, 1987 as the deadline for receiving comments, and subsequently extended the comment period until January 16, 1987. The Southern California Edison Company's ("Edison") comments on the subject IDU EIS and LTIAP are attached.

Edison regrets that BPA, through the LTIAP, has chosen to continue to pursue its anticompetitive and discriminatory policies regarding Intertie access. Since 1983, Edison has been providing comments urging BPA to develop an access policy that relies upon the marketplace rather than upon BPA's discretion and administrative procedures to allocate Intertie access. We have previously submitted comments to BPA on September 16, 1983; August 13, 1984; November 29, 1984; March 14, 1985; and April 3, 1986 regarding the various proposed Near Term and Long Term Access Policies. All these comments appear to have been ignored as BPA has continued to pursue an increasingly restrictive Intertie access policy.

While Edison continues to be strongly opposed to the direction BPA has chosen to take with its LTIAP, our comments are limited for two reasons. First, our past experiences indicate that comments from nonregional customers are unlikely to receive serious consideration for incorporation into BPA's final policy. Second, since nothing less than a major overhaul of the precepts central to the access policy would render that policy acceptable, presenting detailed recommendations on the proposed LTIAP at this time would not be productive. However, we do intend to continue to press our position in other forums.

The present situation is unfortunate for all parties because only an open, competitive Intertie Access Policy would provide long-term benefits to both regions and would be consistent with federal policies to promote competition. We encourage BPA to seriously rethink its proposal in order to promote a positive and mutually beneficial relationship between BPA and California.

Sincerely,

Robert W. Kendall

Attachments

cc: Stanley W. Hulett, President
California Public Utilities Commission

Charles Imbrecht, Chairman
California Energy Commission

COMMENTS OF THE SOUTHERN CALIFORNIA EDISON COMPANY

REGARDING THE

BPA INTERTIE DEVELOPMENT AND USE

DRAFT ENVIRONMENTAL IMPACT STATEMENT

AND

PROPOSED LONG TERM INTERTIE ACCESS POLICY

January 16, 1987

TABLE OF CONTENTS

I.

INTRODUCTION

The Bonneville Power Administration's ("BPA") Proposed Long Term Intertie Access Policy ("LTIAP") is, for the most part, a continuation of the access policy adopted by BPA as the Near Term Intertie Access Policy ("NTIAP") and an expansion of the allocation scheme in the NTIAP to include allocating assured access for long term firm power sales. As a result, the LTIAP retains all of the anticompetitive and discriminatory features of the NTIAP and is, in some respects, even more anticompetitive than the NTIAP. Because of the similarities between the two policies, Edison's previous comments on the NTIAP apply to the LTIAP as well. Therefore, the following comments are incorporated herein by reference:

1. "Comments of Southern California Edison Company on the BPA Intertie Access Policy", September 16, 1983.

2. Letter to Peter T. Johnson from Edward A. Myers, Jr. regarding the "Proposed Near-Term Intertie Access Policy", August 13, 1984.

3. Letter to Anthony R. Morrell from Robert W. Kendall regarding "Proposed Long-Term Intertie Access Policy, Notice of Intent to Prepare an Environmental Impact Statement (EIS)", November 29, 1984.

4. Letter to Donna L. Geiger from Robert W. Kendall regarding "BPA Near Term Intertie Access Policy - Reference ALP", March 14, 1985.

5. Letter to BPA Public Involvement Manager from Robert W. Kendall regarding "BPA's Discussion Paper of Major Issues in the Development of the Draft Long Term Intertie Access Policy (LTIAP)", April 3, 1986.

Edison continues to object to a BPA intertie access policy which is intended to raise the price of power over competitive market levels to the detriment of California consumers in order to reduce the electric rates for Pacific Northwest ("PNW") customers who already pay some of the lowest rates in the country.

Also, Edison recommends that BPA address certain additional issues in the draft Environmental Impact Statement ("EIS").

II.

DISCUSSION

A. BPA's Proposed Intertie Access Policy is Inconsistent with Statutes Including Those Providing Open Access to All Non-Federal Utilities.

The statutes governing BPA do not provide authority for the establishment of an Intertie access policy that severely restricts competition and unduly discriminates against BPA's nonregional customers . Edison believes that such an unfair and discriminatory policy directly violates BPA's requirements under Section 6 of the 1964 Regional Preference Act which requires that BPA function as a "carrier" between regions, and under Section 6 of the 1974 Pacific Northwest Federal Transmission System Act which requires that the Administrator make excess capacity on the federal transmission system available to all utilities on a "fair and nondiscriminatory basis".

The proposed LTIAP would control access to the Pacific Intertie in such a way as to severely restrict competition among utilities in the Pacific Northwest and Canada for the sale of electrical power to California. This would be accomplished by allowing BPA to withhold large portions of the Intertie to transmit its surplus firm power regardless of whether it actually markets such power, by continuing to allocate fixed Intertie allocations to Pacific Northwest utilities, and by excluding Canadian utilities from access during large portions of the year. We believe that BPA is required to conform its policies to federal antitrust law to the maximum extent feasible, and that BPA's exercise of control over access to the Intertie in order to eliminate competition is directly contrary to the intent of the public policy embodied in the federal antitrust laws.

The draft EIS examines the impacts of the LTIAP in the context of seven "Decision Packages". However, none of the scenarios examined by BPA evaluated the impact of an open Intertie access policy governed entirely by competition. Even the least anticompetitive scenarios, Decision Package Nos. 1 and 6, assume that under certain circumstances access would continue to be allocated under a formula similar to that in the Exportable Agreement.

BPA's failure to evaluate more competitive Intertie access policies, particularly pro-competitive policies, renders the Draft EIS insufficient to evaluate the impact of the proposed LTIAP. Without such an analysis of alternatives to the proposed policy, BPA cannot fully evaluate the impact of the proposed LTIAP as required by statute. BPA should, therefore,

expand the scope of the Draft EIS to measure the impact of pro-competitive Intertie access policy alternatives.

BPA should comply with statutory ratemaking procedures in developing a Long Term Intertie Access Policy. The Proposed LTIAP clearly alters the availability of transmission and the conditions of service under BPA's transmission rate schedules. Moreover, the purpose of the LTIAP is to increase BPA's revenues from sales of surplus energy and capacity to nonregional customers. Accordingly, BPA's action in promulgating the LTIAP is subject to the requirements of Section 6 of the Northwest Power Act which mandates that BPA publish notice in the Federal Register, conduct evidentiary hearings and allow cross-examination, and obtain confirmation and approval of its decision by the Federal Energy Regulatory Commission (FERC).

B. BPA Should Allow the Market to Control Access By Other Pacific Northwest Utilities and Canadian Utilities.

The proposed LTIAP would not only increase BPA's rates for surplus energy sold to California above competitive market levels, the rates charged by all PNW utilities to California would also be increased above such levels. There is no basis for BPA to provide such an unjustified and anticompetitive windfall to PNW utilities. BPA should not allocate transmission capacity which is excess to its actual use of the Intertie on a pro rata basis with no recognition of whether utilities receiving such allocations are able to, or in fact do, consummate sales and thereby utilize the capacity. Transmission capacity excess to BPA's actual use should be made available only to utilities showing that a transaction with California has been negotiated. This would ensure a more economically efficient market in the PNW for sales to California, result in greater utilization of the Intertie, and reduce the waste of resources caused by the unnecessary spill of water past unloaded turbines.

The statutes governing access to the intertie (Section 6 of the 1964 Regional Preference Act and Section 6 of the 1974 Pacific Northwest Federal Transmission Act) provide that BPA shall not discriminate against Canadian utilities. Excluding Canadian utilities from the Intertie during Conditions 1 and 2 and allowing Canadian utilities limited access under Condition 3 (as described in Section H, Page 11 of the Proposed LTIAP) would result in the arbitrage of Canadian energy at higher prices through sales by PNW utilities to California and would thereby raise prices above competitive market levels, as has happened under the Near Term Intertie Access Policy. This reduces economic efficiency, provides PNW utilities with excessive revenues from sales to California, and reduces Intertie utilization. BPA should allow Canadian utilities to

obtain access to the capacity of the Intertie which is excess to BPA's actual use on the same terms offered to PNW utilities (preferably on the basis described above).

BPA's exercise of control over access to the Intertie under the proposed LTIAP is particularly inappropriate in light of BPA's proposal in its 1987 general rate case to adopt market-based rates for certain transmission services over the Intertie. By using the lost opportunity rate in the proposed IS-85 rate schedule, BPA will be able to assure that other PNW or Canadian utility transactions with California utilities which BPA cannot prevent outright by the restrictive access terms of the proposed LTIAP will be rendered uneconomic via excess transmission rates.

C. BPA's Proposed Intertie Access Policy Unduly Restricts the Types of Transactions That Can Be Made Over the Intertie.

A major benefit of the Intertie--seasonal and diversity exchanges--would be severely limited, if not outright precluded, by the Proposed LTIAP (see Section E4, Page 7 of the Proposed LTIAP). It is inappropriate for BPA to dictate that, while it may itself contract at any time with California utilities for seasonal and diversity exchanges, other PNW utilities cannot enter into seasonal or diversity exchanges until BPA declares that it no longer has a surplus or unless BPA determines that it would benefit by such an exchange. This restriction is particularly inappropriate because BPA's own EIS shows that seasonal and diversity exchanges are environmentally and economically beneficial to both regions.

The Proposed LTIAP would also severely limit the ability of other PNW utilities to complete any firm contracts with California utilities. To the extent that such contracts could be completed, BPA would, inappropriately, be a third party in such negotiations given BPA's retention of a veto power for transactions that interfere with its power marketing programs (see Section C3, Page 4, of the Proposed LTIAP) and BPA's intention to evaluate each contract based on a broad set of criteria (see Section E2b(2), Page 6, of the Proposed LTIAP). It is improper for BPA to limit the types of transactions which can occur on the Intertie capacity it determines to be excess to its needs. As long as this excess capacity is utilized, and BPA is appropriately compensated through wheeling revenues, BPA should not make a judgment as to the desirability of one type of transaction vis-a-vis another.

In addition, because of the Administrator's ability to restrict delivery based on environmental considerations (see Section C3c(3), Page 4, of the proposed LTIAP) even firm contracts granted assured delivery by BPA might be subject to

future transmission disruptions at BPA's discretion. Such restrictions on assured delivery for firm contracts would increase BPA's control of the PNW market, unfairly increase prices to California, and could force California utilities to develop additional resources before they would otherwise be needed (to the detriment of future sales by BPA and the PNW).

The Proposed LTIAP would require that PNW utilities completely utilize all of their own transmission to California utilities before such PNW utilities would be granted access on the rest of the Intertie, even if such PNW utilities' transmission facilities cannot reach some potential customers in the Pacific Southwest which have rights on the Intertie south of the California-Oregon or the California-Nevada border (see Section C6, Page 3, of the Proposed LTIAP). This restriction would further limit the ability of PNW utilities to compete with BPA for sales to California and would discriminate against potential buyers of transmission service.

D. BPA's Definition Of Its Intertie Access Needs Is Ambiguous and Overly Broad.

Edison has a strong concern relating to the manner in which BPA would determine the amount of Intertie capacity to reserve for its own "power marketing program". In the Interim Near Term Intertie Access Policy, and under the current Revised Near Term Policy, BPA does not provide assured access to its own "surplus firm" energy. This energy instead is allocated pro rata on the same basis as nonfirm energy. In fact, BPA has marketed most of its surplus firm energy on an hourly basis which is actually a nonfirm service. BPA, under the Proposed LTIAP (see Section F1, Page 9), would reserve a portion of the Intertie sufficient to market its surplus firm energy before other utilities receive an allocation of the Intertie for their nonfirm energy (see Section D1 of the Proposed LTIAP). This has the effect of increasing BPA's share of the Intertie for economy energy transactions.

Under the language in the Proposed LTIAP, BPA would be able to reserve this space regardless of whether BPA is actually able to make surplus firm transactions. It is inappropriate for BPA to reserve a portion of the Intertie in the hope or expectation that it will be able to make surplus firm sales.

This is a significant problem because BPA is projecting that in the next few years it will have over 1,000 average MW of surplus firm energy. Under the Proposed LTIAP, BPA would be able to "shape" this energy into the fall months using a factor of 1.8 times the projected amount of firm surplus. This means, for example, that under the proposed LTIAP, in October, BPA could "reserve" as much as 1,800 MW of the Intertie for surplus

firm sales. In this situation, nearly one-half of BPA's portion of the Intertie would be unavailable for nonfirm energy sales (at lower rates) from other PNW utilities or Canadian utilities. Also, by first reserving space for what is labeled as surplus firm energy (often sold on an hourly basis), BPA could substitute higher-priced surplus firm energy whether or not the buyer wanted or needed firm energy.

E. The Draft Environmental Impact Statement Should Address Certain Additional Issues.

As required under 42 U.S.C.A., Section 4332 (cn) (ii), a statement should be added to the draft EIS identifying any unavoidable adverse impacts which would result from the Maximum Upgrade in transmission capacity. If no such unavoidable adverse impacts are anticipated, this should be so stated.

The IDU EIS needs to explain the relationship between local short-term uses of man's environment and maintenance and enhancement of long-term productivity as required by 42 U.S.C.A., Section 4332 (cn) (iv). The IDU EIS should contain a discussion of the uses of renewable resources, such as hydroelectric generating facilities versus non-renewable resources, such as oil, gas, and coal-fired generation.

Finally, a statement should be added to the EIS to identify any irreversible and irretrievable commitments of resources which would be involved in the Maximum Upgrade. 42 U.S.C.A., Section 4332 (cn) (v) requires an EIS to note such commitments. If no resources would be irreversibly and irretrievably committed by completion of the Maximum Upgrade, it should be so noted.

Additional language changes which we believe should be made in the EIS, are listed in the attached appendix.

III.

CONCLUSION

Edison believes that the LTIAP, as proposed, would further promote BPA's already anticompetitive and discriminatory access policy for the Pacific Intertie. Edison continues to believe that BPA's proposed procedure for allocating intertie access is fundamentally flawed in that the policy allows BPA to substitute its judgment for the actions of the marketplace. A major overhaul of the precepts central to the access policy is necessary and appropriate in order to bring BPA's LTIAP in line with federal policies which promote competition and prohibit antitrust behavior.

APPENDIX

RECOMMENDED CHANGES TO THE IDU EIS

A. Purpose of Need for Action

1. Page 1-7, paragraph 3, 5th line should be " . . . COTP EIS/EIR, . . ." Sixth line should be a comma (,) after IDU EIS. Last line after "benefits", should read "benefits to COTP participants . . . " Add the last sentence: "PSW, as discussed in the COTP EIS/EIR".

B. Alternatives, Including Proposed Actions

1. Page 2-2, under 2.1.3, second paragraph, change the figures as follows: " . . . involve construction of about 130 miles of new 500 kV . . . " and "upgrading of about 170 miles of existing . . ."

2. Page 2-3, sixth paragraph, third line, should be " . . . IDU EIS and COTP EIS/EIR . . . " and at the end of line four, add "and the Transmission Agency of Northern California (TANC)".

C. Environmental Consequences

1. Page 4.4-2, seventh paragraph, first line, should be changed to read, " . . . in northern, central and southern California . . ." Also, the two sentences beginning with "Nonetheless" and ending with "from the Third AC/COTP" should be changed to read as follows: "Nonetheless, some of the COTP participants are southern California utilities; consequently, the construction of COTP would result in more PNW electrical sources being sold to southern California."

2. Page 4.4-20, first paragraph, should be changed as follows: ". . . central California, and would indirectly serve southern California. Some of the PNW power brought in over COTP would displace . . . Los Angeles area. Some of the PNW power brought in over COTP would displace power produced at plants in the Los Angeles area. Nonetheless, fewer people would . . . Expansion project." Delete "However . . . would result from the Third AC/COTP." Leave the last sentence as is.

3. Page 4.8-3, last paragraph, change to " . . . utilities, the Third AC/COTP would increase the number of interregional transactions the PNW could engage in." Delete the rest of the paragraph.

Joseph R. Blum
XXXXXXXXXXXXXXX
Director

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES
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January 14, 1987

Ms. Barbara Ritchie
NEPA Coordinator
Washington Department of Ecology
Lacey, Washington 98504

Dear Ms. Ritchie:

Intertie Development and Use DEIS and
Proposed Long-Term Intertie Access Policy

The Washington Department of Fisheries (WDF) appreciates the opportunity to review and comment on Bonneville Power Administration's (BPA) Draft Environmental Impact Statement (DEIS) and proposed Intertie Access Policy. As you know, we have been very interested in and concerned about BPA's use and upgrade of the Intertie. Over the past several years we have submitted numerous comment letters on these issues to alert you to our views and recommendations. We remain involved because we believe the Intertie capacity and policies regulating use and access will be a determining factor in existing hydroelectric project operation, new hydroelectric development and the resulting effects on anadromous fish resources throughout the Pacific Northwest Region.

We recognize that BPA is going through difficult financial times. Loss of a portion of the California market and Direct Service Industry sales have reduced BPA revenues. We hope that this short-term difficulty does not hinder BPA's ability to openly acknowledge, discuss, analyze and address potential problems that may arise from the proposed actions.

The DEIS deals with many complex but interrelated issues. BPA has attempted to simplify the situation with extensive use of models. Models can be very helpful and informative, particularly when there is general agreement on their intent, content and application. Two of the models used extensively in the DEIS to predict potential fisheries impacts, FISHPASS and the Least Cost Mix Model, unfortunately do not enjoy widespread support at this time. We have provided recommendations as to how this situation may be improved.

Another disturbing aspect, found primarily in the fisheries impact analysis, is deferral of certain assessments to the final EIS. Although we agree that certain values used in FISHPASS definitely need refinement, we believe that it is not appropriate to present the new analysis in the final EIS, without the opportunity for public review and comment. A similar tact is taken with regard to analysis of impacts to the Corps of Engineers (COE) spill plan. Both will probably change results of the juvenile migrant survival analyses which, in turn,

will affect our recommendations on upgrade options, policy alternatives and mitigation. It appears the DEIS was prematurely released for public comment and that BPA was anticipating preparation of a supplement. We agree it is needed and strongly recommend a DEIS supplement be prepared which addresses anadromous fisheries related impacts identified by us and other commenters.

Finally, we believe BPA has erroneously confined its anadromous fish impact analysis to the Columbia and Snake Rivers' mainstem projects. Intertie use and benefits will be region wide, potential changes in hydroproject operation and development will be realized throughout the Northwest, fisheries resources throughout the region may be adversely impacted by the operation changes and new development, and yet the DEIS fails to recognize such potential. We ask that BPA broaden its view of the Intertie and hopefully acknowledge responsibility for the impacts of the proposed actions.

We look forward to hearing from you regarding BPA's proposed course of action. If you have any questions, please contact Mr. Kevin Bauersfeld (206-753-6582) of my staff.

Sincerely,

Robert J. Hall /for

Joseph R. Blum
Director

GENERAL COMMENTS - DEIS

The subject material presented in the DEIS is complex, replete with unfamiliar terms, often very technical, multi-disciplined and geographically dispersed. As it now stands, the DEIS is difficult to read and fully comprehend. Not withstanding the complex nature of the issues, we suggest that BPA needs to make the document more "reader friendly." The following suggestions would help:

a) Remove data and analyses that are strictly informational. If an option is not within the range of possibilities, do not present it in the body of the text.

b) Provide more "in text" definitions and explanations of terms and concepts.

c) Make more use of absolute numbers, as opposed to deviations from statistical medians and means.

d) Provide more supporting documentation and rationale for important impact analysis parameters, e.g. tests for significance.

e) Spend considerable time explaining the relationship of the proposed LTIAP to the impacts discussed in the DEIS.

f) Use larger type.

The decisions and actions that result from these documents will help guide electrical resource development in the Pacific Northwest (PNW) Region for many years. It is in the best interest of all parties that the issues be clearly presented, potential impacts fully analyzed with the best available information, and the results be presented in an understandable fashion. As written, the DEIS does not meet those objectives.

The purposes of an Environmental Impact Statement (EIS) are to review anticipated impacts of a proposed action/project, identify and discuss alternatives, and, where appropriate, put forth appropriate mitigation. The action under review is to increase the electrical transmission capability of the Pacific Northwest - Pacific Southwest Intertie and to refine BPA's policy regulating access to the Intertie. As BPA states in the DEIS, "...the Intertie has served as the principal means for transmitting firm and nonfirm energy and capacity between the PNW and California." BPA can allocate Intertie capacity to Scheduling Utilities (a utility that operates a generation control area within the PNW) or an Entity (an owner of a resource other than a Scheduling Utility). In other words, virtually any hydro resource owner in the PNW could gain access to the Intertie and benefit from the increased transmission capability.

Since the benefits are region wide, the impact analysis should likewise have a regional perspective. However, we do not find that BPA has taken a regional

view with respect to potential anadromous fisheries impacts. In fact, anadromous fish impact assessment has been confined to mainstream Columbia and Snake River dams. The assessment has been further condensed to looking at the probability of meeting Water Budget flows, added juvenile mortality due to loss of spill, and potential impacts to Hanford Reach spawning and emergence flows. The pattern of proposed hydroelectric development, which includes very significant activity outside the Columbia River Basin, and the litany of potential impacts to anadromous fish caused by hydro requires a broader review than provided in the DEIS.

In Washington, for example, according to the Federal Energy Regulatory Commission (FERC) there are currently 51 license applications, three exemptions and 14 preliminary permits pending action. About 30 of these license and exemption applications are in the Nooksack and Skagit River Basins, far removed from the Columbia Basin. Recent licenses granted in the basins have cited off-loading of California and southwest fossil fuel generating resources as a justification for the projects. Use of the Intertie must certainly be contemplated by FERC and the project proponent, yet nowhere is the relationship between ongoing hydro proposals, the Intertie use and upgrade, and resulting fisheries impacts discussed.

The DEIS identifies daily load following (peaking) by PNW hydro resources to meet California markets as a potential change in operation. Daily hydroelectric peaking operations have been shown to strand juvenile salmonids in many PNW rivers, including the Columbia and tributaries. This potential impact was not discussed, other than in passing during a brief review of generic hydro impacts. Also ignored were the potential effects peaking may have on adult salmonid passage. Dam passage is already a significant source of mortality in the Columbia system.

The use of the FISHPASS Model, as it presently stands, is a glaring weakness in the fisheries impact analysis. Deficiencies in the model include use of point estimates (in lieu of ranges), no discussion of the uncertainties innerent in the modeling analysis, little or no presentation of data that supports modeling results, and use of unrealistic assumptions and values. This problem is further compounded by the fact that many of the values that went into the model will change substantially for the final EIS. This last point is particularly significant since all juvenile migrant survival estimates and, in turn, BPA's assessment of significant impacts, are directly tied to the parameters that will change in the final document.

The long standing disagreement between BPA, the Corps of Engineers (COE) and the agencies and tribes regarding assumptions and use of the FISHPASS model leads us to recommend the model be submitted to a third party for independent, expert review with the goal of arriving at a mutually acceptable product. Agreement on the model and its use is an important key in providing a reliable fisheries impact assessment in the DEIS.

We question the value of the Least Cost Mix Model in predicting new resource development. The model does not seem to respond to many of the elements which drive hydroelectric development and/or hinder development of other kinds of resources. Modification or replacement of the model may be necessary.

In the benefits analysis, we were disappointed to see that BPA had neglected to allocate any environmental or mitigation costs when arriving at a dollar value for the various alternatives. Depending on the impact level and mitigation options implemented, these costs could be very substantial. Further work on this portion of the analysis is necessary.

The relationship between the policy (as outlined in Volume 2) and the impact analysis (as presented in Volume 1) is unclear. Numerous alternatives and decision packages for granting access at various Intertie capacities are presented in the DEIS but do not appear, at least in the same terminology, in the description of the policy. The DEIS would be much more comprehensible if important elements of the proposed policy were directly identified in the DEIS and associated with specific impact analyses.

It does not appear that the DEIS adequately addresses potential fisheries impacts. Several key components of the analysis are missing in the DEIS. We believe the best approach would be for BPA to prepare a DEIS supplement which deals specifically with fisheries issues raised during this review. Preparation of the supplement should occur after agreement has been reached on content and application of the FISHPASS model.

SPECIFIC COMMENTS - DRAFT EIS

Page 1-1, 1.2.1 It would seem that an appropriate purpose in this section would be consistency with the Northwest Power Planning Act requirements, including the Council's Fish and Wildlife Program.

Page 1-1, 1.3 In paragraph 3, the DEIS implies that BPA assessed potential river operation changes and fisheries impacts throughout the PNW. This is not accurate. Assessment of potential anadromous fish impacts is limited to mainstream Columbia and Snake River projects.

Page 2-4, 2.1.5 BPA reports average anadromous fish stock survival decreases of less than 1.0 percent as a result of the D.C. Terminal expansion and concludes that loss to be insignificant (D.C. expansion FONSI). Employing the same analysis, however, to the other capacity upgrade alternatives resulted in significant impacts requiring mitigation. We believe the conclusion reached in the D.C. Expansion EA and Supplement is flawed. Certain key assumptions in the FISHPASS model which indicated "insignificant" reductions in juvenile survival rates and led to issuance of a FONSI, will be significantly changed in the final EIS (page C-2, Appendix C). The changes are generally toward less efficient fish guidance, leaving a greater portion of the downstream migrant population in the river and subject to added turbine losses. Until that analysis has been presented and reviewed, the significance of the relative losses cannot be judged.

Page 2-4, 2.2 . We again suggest BPA policy governing access to the Intertie goes beyond the Administrator's fish and wildlife enhancement efforts. As we pointed out in our general comments, the Intertie will be available for all to use, both within and outside the Columbia River Basin. Resource development and operation, and resulting fisheries impacts in response to Intertie access policy, will also be felt in areas of the PNW where the Administrator's efforts do not occur.

We recommmend the last sentence in bulleted item 3 be changed to read, "Access for hydroelectric resources is an issue because of potential impacts to fisheries and wildlife resources."

Page 2-6 and 7, 2.2.2.2 Wouldn't the Near Term IAP act as an incentive to develop new hydro resources, as well as conservation, to prolong the utilities existing surplus and continue to gain assured delivery?

Page 2-8, 2.2.2.3 The DEIS claims long-term firm contracts will reduce fisheries impacts and decrease new resource development. This is contrary to past experience in the Columbia River system where firm contract sales have often been a constraint to improving passage conditions and is certainly not consistent with patterns of proposed hydro development we now see in the PNW. It would be helpful if BPA would futher develop the rationale, circumstances, caveats, and likelihood that this prediction would come to pass.

Page 2-9, 2.2.3.5 We recommend BPA deny acess to any new hydro if it will, in the judgment of responsible fish and wildlife agencies and tribes, adversely affect fish and wildlife. The denial should not be tied solely to the Administrator's enhancement or mitigation efforts.

Page 2-10 to 2-18, 2.3 Since the projected impacts to fisheries resources are going to change when assumptions in the FISHPASS model are changed, it is premature for us to comment on the decision packages. In addition, as will be explained later, we believe additional anadromous fish impact parameters need to be considered in the analysis.

Page 3-1. 3.2.1.1 We believe PNW river systems outside the Columbia River, systems whose flows are dependent upon hydroelectric project operation, will also be affected by the Intertie upgrade and access policy. Obvious river systems which should be included in the analysis include the Skagit, Elwha, Puyallup and Nisqually River Basins. Each are controlled by several hydroelectric projects owned and operated by Scheduling Utilities. The extensive salmon resources within these basins may be adversely affected by Intertie access policy decisions and new resources developed for sale to California. The DEIS does not address this aspect of Intertie upgrade and use.

Page 3-11, 3.2.3.1 Recreational and commercial harvest of salmonid resources is a significant part of the PNW resource base. It would be appropriate to provide the reader some insight as to its value also. For Washington, such information is available from yearly statistical reports published by WDF.

Page 3-17, 3.2.7.1 For comparative purposes, we recommend you show actual rates in addition to percent increases.

Page 3-35,36, 3.3.2.1.1 Many stranded juvenile salmonids also die as the shallow pools or gravel bars become dewatered.

The adult chinook migrant loss in the Lower Columbia River (Bonneville through McNary) has been estimated to be as high as 13 percent per dam (ODFW, unpublished data). Losses at certain dams have been much higher in some years, not all of which can be attributed to fallback. Although the DEIS acknowledges

potential peaking related losses, no further discussion or analysis is presented. This potential problem needs to be further explored and, if needed, mitigation alternatives should be identified.

Page 4-1, 4.1 The DEIS states, "The SAM shows how the PNW power system could be most effectively operated under various resource and load conditions,...." Is the system actually operated in the most effective manner? How does simulated operation differ from the real operation? How will the differences affect the survival analysis for downstream migrants?

Page 4.2-1, 4.2.2 Why was 1987 chosen to represent Intertie conditions before upgrade? Wouldn't an actual generation year provide a better portrayal of current conditions?

Page 4.2 - 27, 4.2.3.3 According to the DEIS, the Least Cost Mix Model (LCMM) was used to predict new resource development effects. The model apparently selects the least cost new resources to determine optimal mix and timing to meet new loads. It appears the model incorrectly assumes that cost is the only criteria that determines resource acquisition. Wouldn't resource acceptability, availability, ability to be brought on-line, development incentives (tax benefits), and existing law (PURPA) all play a role in aquisition decisions? The model does not appear to incorporate or be sensitive to any of the many forces that come into play in resource development.

Page 4.2 - 27 to 4.2 - 31 The analyses presented in Tables 4.2.28, 4.2.29 and 4.2.30 seem to predict (based on the LCMM) that minimal or no new small hydro resources would be developed for export except under the most unrestricted access policy. We believe the results are not consistent with what is happening in the hydro development community. Significant development dollars are still being invested in large numbers of projects (132 license and exemptions are pending before FERC) in the PNW. Furthermore, the FERC has cited the growing California market and Intertie expansion as a justification to license new hydroelectric projects. We suggest the LCMM needs to be modified, if possible, to better reflect what is happening or perhaps a new approach needs to be developed.

Page 4.5-1, 4.5.1 We agree with the DEIS that changes in the operation and development of the hydroelectric system in the PNW could affect the fisheries resources. We do not agree that the impacts are confined to the Columbia River Basin in Washington State. The Intertie is used by most, if not all major utilities of the state and the power marketing opportunities are there for all. Supplying power to California markets can alter hydroelectric project operations - as has been demonstrated in the DEIS for the Columbia Basin projects - with potential damage to the fisheries resource throughout the state. It is not appropriate for BPA to continue to ignore the potential impacts of this aspect of Intertie use and development.

Page 4.5-12, Table 4.5.6 The BPA first option will apparently result in decreased flows at Priest Rapids during the spring migration. Although the magnitude of the reductions does not meet BPA's test of significance, we suggest this option may at a minimum have a serious impact on migrants entering the

Wells pool. There is a reasonably high probability for reduced flows. This reduction will be realized at five mid-Columbia dams, and increase the likelihood of exceeding the 30-day limit for fish travel time.

Page 4.5-15 Spill and flow effects on survival: Issues. The Council's 90 percent per dam juvenile survival standard is significantly less than the passage survival standards recommmended by the agencies and tribes. We believe there is an opportunity to improve upon the 90 percent standard. Will planned spill remain unaffected if the Council elects to adopt a higher passage survival standard? Perhaps the 92 and 94 percent level should also be analyzed in the DEIS.

Our concerns regarding the assumptions and use of the FISHPASS model have been expressed repeatedly here (see comments on Appendix C) and in previous comment letters. Suffice it to say again, we believe further refinement and agreement of the model is needed before it can legitimately predict significant impacts. We invite BPA into discussions with the appropriate fisheries agencies and tribes and an independent "third party" if need be, to resolve this important issue. Without such resolution, this DEIS will remain seriously flawed.

We view BPA's deferral of the impact analysis of the COE's spill plan (and juvenile survival) as a further indication of the inadequate treatment afforded fisheries in this DEIS.

Page 4.5-17 The test criteria selected by Mr. Mobrand for BPA to indicate the potential for significant impacts on survival of downstream migrants are very poorly explained. All the reader is told is that Mr. Mobrand is a professional fisheries biometrician and that he, under contract with BPA, chose these criteria based on review of survival data and analysis of stock recruitment relationships. Since BPA builds its juvenile migrant impact analysis and conclusions based on exceeding these criteria, basic understanding of the derivation, documentation, rationale, sensitivity and applicability of the criteria is of critical importance. The three paragraphs on Pages 4.5-25 and 26 (significance of survival changes) describing stock status are woefully inadequate if they are the basis for the criteria. Failure to establish credible criteria up front tends to cloud the value of the entire analysis.

Page 4.5-27, Paragraph 1. It is incorrect to imply that chinook stocks potentially affected by Intertie development and use do not restrict harvest opportunities. The coastal fisheries noted in the DEIS represent only a portion of the harvest opportunity for these stocks. The DEIS fails to discuss restrictions negotiated in the U.S.-Canada Treaty on Alaskan and Canadian fisheries which, at one time, targeted Columbia River stocks. Equally as important, in-river sport and commercial fisheries have been severely restricted for most upriver stocks for many years. The recent strong escapements referred to in this document are, in part, a direct result of the restrictive harvest policies coupled with improved dam passage conditions.

Based on the above discussion and faced with the knowledge that survival indexes will change when 1) the fish guidance efficiencies are altered, 2) the COE spill plan is analyzed, and 3) other assumptions become more realistic, we see little

value in commenting on the results and conclusions presented in Tables 4.5.10 through 4.5.17. We recommend another round of public comment needs to be scheduled when these issues are cleared up. A supplement to the DEIS is the appropriate vehicle for this review.

Page 4.5-28 Possible Mitigation Measures. We are pleased to see that BPA recognizes the need for mitigation. We would like to add another measure to the list; that being avoidance of the impact where possible. We have found impact avoidance to be the most successful method of maintaining fisheries resources at current or enhanced levels. The mitigation issue also needs to be revisited when impact levels are better defined in the supplement. For general guidance, however, we strongly urge BPA to adopt policy provisions and upgrade alternatives which clearly avoid additional impacts to anadromous fish.

Page 4.5-28 Hanford reach spawning and emergence flows. The DEIS fails to mention or analyze incubation requirements after spawning but prior to emergence. Grant County PUD is obligated to maintain a certain water level within the redds throughout incubation (December - March). The required minimum flow level is determined by elevation of the eggs/alevins within the gravel and has ranged between 60 and 70 kcfs in the last several years. On occasion, the PUD has experienced difficulty in meeting that minimum flow requirement, particularly during low load periods (extended holidays, unusually warm weather periods).

Are average flows in April, a month in which flows can vary greatly, an appropriate statistic for this analysis? In previous analyses, April was divided into two equal periods.

Page 4.5 - 48 The DEIS should mention juvenile losses associated with intake screening structures, adult losses caused by delay or injury at the power house discharge, and nitrogen supersaturation cause by entrainment of air at the intake (in addition to spill related causes).

Page 4.8-1, 4.8 Economic Effects. The economic benefits associated with the DC Terminal Expansion Project, the Third AC/COTP (in combination or singularily) and non-firm or long-term firm sales all apppear to be over estimated. The only costs shown are capital and production costs. Environmental and mitigation costs appear to have been ignored, an omission that tends to inflate the benefits.

For example, BPA suggests turbine intake screening and juvenile bypass systems might be appropriate mitigation for Intertie development and use impacts (pg. 4.5-28). This alternative is not inexpensive. D. DeHart (NMFS), in testimoney to the FERC, (Project No. 943-002, Docket No E-9569, Exhibit NMF-1-4) stated capital costs for juvenile facilities at COE projects ranged from $5.0 million to $28.4 million. DeHart, in reply testimony (Exhibit NMF-6-4-A) in the same proceedings, estimated the capital costs of screen and bypass facilities at Rock Island Dam to be $22.0 million. These estimates do not include preliminary study and design expenses or the long-term cost of operation and maintenance.

A more detailed benefit/cost analysis, including associated environmental and mitigation costs, is warrented in the DEIS.

Appendix C

Page C-1, C.1.2 The number of wild fish migrants continues to expand as escapement levels increase to meet interim and, eventually, long-term management goals. How will these fluctuations affect the modeling results? It should also be noted that the fish and wildlife agency estimates were significantly greater than those generated by the PUD's for 1985 and used in this model.

It may be true that juveniles will survive the transportation process at the assumed rates. However, the transported fish (particularly spring chinook) apparently survive to adults at a lesser rate than in-river migrants. These are not appropriate measures of survival for the use in the model. Furthermore, not all fish collected at these dams are transported. It is still policy to bypass yearling salmon at these facilities and this should be reflected in the model.

Page C-2, Table C.1 The turbine mortality rate for Rock Island is too low. We recommend 11 percent for powerhouse number two, and 15 percent for number one.

Page C-2, Table C.2 Any changes in the reported data should be justified biologically and presented in this appendix.

Page C-2, Table C.3 We again raise our strong objection to knowingly presenting an impact analysis based on faulty data. Furthermore, the following changes in guidance efficiencies cannot be justified based on recent test results:

1) Lower Monumental-yearlings

2) Ice Harbor-yearlings

3) Bonneville Second Powerhouse-yearlings

4) McNary-subyearlings

5) Bonneville Second Powerhouse-steelhead

6) Bonneville First Powerhouse-sockeye

If the FISHPASS model and its use is to gain acceptance among the agencies and tribes responsible for fisheries resource management, general agreement on assumptions and input values must be reached. We suggest agreement may be obtained by employing third party review. This might be best accomplished through use of mutually agreed upon university level personnel (or similar institution) in consultation with BPA, its consultants and the fish and wildlife agencies and tribes. This review must should be accomplished before the EIS is finalized.

GENERAL COMMENTS - LONG-TERM INTERTIE ACCESS POLICY

At best, the Long-term Intertie Access Policy (LTIAP) is a difficult document to read and fully understand. Part of the problem may be due to the LTIAP being presented in a contract format. Furthermore, many of the provisions (and exceptions to the provisions) of the LTIAP are presented only as 1) criteria, standards and elements of other contracts or agreements that are identified by name only, 2) provisions of law, 3) components of other sections of the LTIAP, and 4) exhibits that are incomplete. The continual cross-referencing is confusing and many of these provisions are unfamilar to the reader. In short, the LTIAP is written in a manner, form and context that does not promote general understanding of the intent or process which it purports to describe. Finally, BPA established virtually no linkage between the proposed LTIAP and DEIS which supposedly evaluates the impacts of the proposed policy. Correction of these deficiencies would make the LTIAP more comprehensible.

The LTIAP provides policy guidance for only a portion of the power resources that are and will be transmitted to the southwest. From a fish and wildlife perspective, the LTIAP is noticably silent on PNW region hydroprojects outside the Columbia River Basin (Basin). This restricted application of the LTIAP is not appropriate. As we have pointed out in previous comments on LTIAP and here on the DEIS, substantial numbers of new hydroprojects are undergoing licensing and development outside the Basin with the expectation of export to the southwest via the Intertie. As it now stands, the policy (and upgrades) provide development incentives and market opportunities for out-of-Basin resources. We recommend the LTIAP be modified so that fish and wildlife protection provisions be applicable to all PNW Northwest region hydroelectric resources.

The current fisheries protection provisions in the LTIAP remain unenforcable and require modification. The lack of an adequate reporting procedure and the no impact presumption are major deficiencies. The test case filed in April 1986, by National Marine Fisheries Service, to which BPA has yet to provide a definitive response, affirms the contention that stronger, more accountable reporting procedures are required. To that end, we recommend BPA require declaration of specific resources for which Intertie access is being requested and the declaration contains enough information to determine consistency with the LTIAP, the Northwest Power Act (including the Plan and Program) and the plans of the appropriate fish and wildlife agencies and tribes.

We do not see any indication that BPA has assessed the effects of Firm Displacement (FD) on fish and wildlife resources. Yet in the policy, BPA would provide assured delivery for all resources exported under this concept. The shifting of BPA's firm surplus to other Northwest utilities and allowing them to market their firm power surplus to the southwest may alter flow regimes which, in turn, can harm fisheries resources. This potential problem was discussed in detail in our March 24, 1986 comment letter on the FD concept. We recommend only resources which have been certified to have no impact by the responsible fish and wildlife agencies and tribes be granted access under FD.

Additional specific comments and recommendations on the LTIAP follow.

SPECIFIC COMMENTS - INTERTIE ACCESS POLICY

Page 2, 10. Consistent with our belief that this is a regional policy with regional implications and effects, we recommend "within the Columbia River Basin" be deleted from the definition of new hydroelectric plant.

Page 3, 14. We recommend the definition be reworded to read "Regional resources that will not impact fish and wildlife resources." Eliminate b., b.(1) and b.(2).

Page 3, 18. We recommend the word "substantial" be removed and that an adverse impact should be determined by the appropriate fish and wildlife agencies and tribes.

Page 3, B. We recommend an automatic policy review date be established to ensure the policy is fulfilling its intent. Three years after adoption should provide enough time and practical experience to make necessary modifications.

Page 4, C.3.c.(1). We recommend this be changed to read "The construction or operation of a qualified Pacific Northwest resource that will have, in the views of appropriate fish and wildlife agencies and tribes, an adverse impact on fish and wildlife resources."

Page 5, D.3.b. As we noted earlier, there are no assurances that resources of a Scheduling Utility which are developed and operated under FD will have any Intertie access policy standards to meet. The proposed policy assures Intertie capacity for all FD supported sales. We recommend that the only FD supported sales that are assured delivery are for resources that, in the view of the responsible fish and wildlife agencies and tribes, will not adversely impact fish and wildlife.

Page 5 and 6, E.1.a. The last phrase of the second sentence seems to provide clear incentive to Scheduling Utilities to obtain new resources that will prolong surplus conditions and southwest sales. We do not believe the policy should encourage such development. Therefore, we recommend "...and later obtains new resources or power to serve such sale." be deleted from the second sentence and "existing" be inserted between "its" and "surplus."

Page 12, 3.a. The presumption that hydro operations do not adversely impact fish and wildlife is unfounded. BPA and others would not be in the position today of spending hundreds of millions of dollars to mitigate hydro related impacts if such operations were indeed benign. We recommend that "presumes" be changed to "requires."

Page 12, I.3. All references that limit policy application to the Columbia River Basin should be removed.

Page 13, I.3.e. We would like to see more direct participation of the fish and wildlife agencies and tribes in this process if operation modifications or mitigation expenditures are to be made.

The SHOSHONE-BANNOCK TRIBES

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January 15, 1987

Donna L. Geiger, Public Involvement Manager
Bonneville Power Administration
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RE: Draft EIS Intertie Development and Use

Dear Ms. Geiger:

We are responding to the Administrator's request for public comment and involvement in the proposed Intertie Capacity Upgrade and Access Policy. The Shoshone-Bannock Tribes (Tribes) have a number of serious concerns with the Intertie Capacity Upgrade and Intertie Access Policy contemplated by Bonneville Power Administration (Bonneville) as described in the Intertie Development and Use Draft Environmental Impact Statement [U.S. Department of Energy, October 1986].

Our primary concern is that the capacity upgrade may unreasonably constrain spillage of water to provide for and promote downstream migration of indigenous stocks of anadromous fish originating in the upper reaches of the Snake River Basin. As discussed below, the Tribes retain priority fishing rights upon unoccupied lands throughout large portions of Bonneville's Snake River Area.

The opportunities for Tribal members to exercise priority fishing rights will undoubtedly be adversely impacted by the proposed Intertie Capacity Upgrade and Access Policy. Tribal members continue to depend upon the exercise of such rights for maintenance of cultural values associated with fishery resources. These fishing rights are guaranteed by the 1868 Fort Bridger Treaty but are not considered in Bonneville's assessment of the environmental consequences of upgrading Intertie capacity and Intertie Access Policy. The Treaty fishing rights must be taken into account when the United States sanctions projects which may have significant environmental impacts on Treaty-affected resources such as anadromous or resident fish within the Columbia River Basin.

The Tribes collectively comprise a single, Federally-recognized Indian tribe with a governing body, the Fort Hall Business Council, which is duly recognized by the Secretary of the Interior. The Shoshone-Bannock Tribes are the successors-in-interest of Indian signatories to the Fort Bridger Treaty (Treaty) of July 3 1868, 15 Stat. 673. The Treaty secured the Fort Hall Indian Reservation in southeastern Idaho Territory as a permanent Tribal homeland. In addition, Article 4 of the Treaty guaranteed the continuation of Tribal use rights on lands outside the Reservation. Specifically, the Tribes expressly reserved rights to fish, hunt and gather natural resources for subsistence and cultural purposes on unoccupied lands of the United States.

In Shoshone Tribe v. United States, 11 Ind. Cl. Comm. 387 [1962] the Claims Commission found that the Tribes' historical economy "was based mainly on hunting, gathering, fishing and trading," 1 Ind. Cl. Comm. at 404, and that the Tribes "aboriginally exclusively used and occupied" an enormous territory encompassing major portions of Bonneville's Snake River Service Area which will be impacted by Bonneville's capacity upgrade and access policy.

To the extent that Bonneville's capacity upgrade and access policy adversely impact fish resources, Bonneville will impermissibly infringe upon the Tribes' priority fishing rights under the Treaty. The explicit right to fish secured by the Treaty includes or incorporates an implied right to relief from Federal and Federally-authorized environmental degradation of fishery resources that unreasonably interfere with cultural and subsistence values integrally tied to the Tribal exercise of the Treaty fishing rights.

The U.S. Congress explicitly acknowledged and provided for protection of treaty fishing rights of Columbia Basin Indian tribes including the Treaty fishing rights of the Shoshone-Bannock Tribes, in the Pacific Northwest Electric Power Planning and Conservation Act of 1980, 16 U.S.C. 839 et seq. (Northwest Power Act). As indicated in the 1984 Columbia River Basin Fish and Wildlife Program [Northwest Power Planning Council, Amended October 10, 1984] developed and adopted pursuant to the Northwest Power Act, the Council developed this program in cooperation with state fish and wildlife agencies, Indian tribes, and other interested parties.

The Shoshone-Bannock Tribes believe that the appropriate role of Bonneville is clearly spelled out in the Northwest Power Act

together with the Bonneville Project Act of 1937, the Federal Columbia River Transmission System Act of 1974, the Flood Control Act of 1944, the Pacific Northwest Regional Preference Act of 1964, and the Grand Coulee Third Powerhouse legislation of 1966.

Prior to passage of the Northwest Power Act, Bonneville's legislative authority and responsibility included the following:

. marketing electricity generated at Federal projects in the Columbia Basin to encourage the widest possible diversified use at the lowest possible rates consistent with sound business principles;

. giving preference and priority in the sale of Federal power to public bodies, cooperatives and customers in the Pacific Northwest;

. recovering the cost of producing and transmitting Federal and acquired power including timely repayment of the Federal hydropower investment and irrigation costs that are beyond the ability of irrigation water users to repay; and

. maintaining the stability and reliability of the region's electrical supply system.

With enactment of the Act, Bonneville is, in addition, specifically required to use its funding and legal authorities "to protect, mitigate, and enhance fish and wildlife. . . in a manner consistent with . . . the program adopted by the Council." This provision leaves Bonneville virtually no discretion in implementing the fish and wildlife program. In particular, Bonneville cannot refuse to implement a Council directive unless it can be demonstrated that compliance with the Council's fish and wildlife program measures will compromise maintenance of a stable and reliable electrical system, preclude repayment and debt service on the Treasury's hydropower investment and the obligations assumed by irrigators, and/or prevent Bonneville from giving Pacific Northwest public utilities, cooperatives and customers preference in the electrical market.

In other words, Bonneville's planning authority is confined and restricted to planning future additions to the Federal transmission system and system reinforcements which improve the stability and reliability of the electrical supply system. Bonneville is not empowered to balance the fisheries and

electrical interests. Achieving a balance of interest is the responsibility of the Northwest Power Planning Council which, by law, acts only with the involvement of state and federal fish and wildlife agencies, Indian tribes, and interested members of the public. In particular, Bonneville cannot engage in activities such as upgrading the capacity of the Intertie or promulgating an Intertie Access Policy in a manner inconsistent with the fish and wildlife program adopted by the Council.

The Northwest Power Act directed the Northwest Power Planning Council to "promptly develop and adopt. . . a program to protect, mitigate and enhance fish and wildlife including related spawning grounds and habitat, on the Columbia River and its tributaries." The Act further directed that "the program, to the greatest extent possible, shall be designed to deal with that river and its tributaries as a system." The Northwest Power Act explicitly gives the Bonneville Power Administration the authority and responsibility to use its legal and financial resources "to protect, mitigate and enhance fish and wildlife to the extent affected by the development and operation of any hydroelectric project of the Columbia River and its tributaries in a manner consistent with . . . the program adopted by the Council. . . and the purposes of this Act."

On page S-1, the DEIS states that the purposes of the Intertie Access Policy and expanding the Intertie capacity are to "achieve consistency with other national policies." This DEIS has not adequately addressed the Northwest Power Act which is clearly a national policy. The development of reasonable alternatives and the analysis of impacts does not relate back to the fundamental mandate to "protect, mitigate and enhance fish and wildlife included related spawning grounds and habitat". The DEIS also does not adequately address the Fish and Wildlife Coordination Act with calls for equal consideration of fish and wildlife with other resource values.

The alternatives should have been developed based on the water flow available after judicial (i.e. Vernita Bar FERC Settlement Agreement) and federally mandated (Northwest Power Act) water flows required to protect fish and wildlife, i.e., the Water Budget, are provided for. The implication of the current alternatives is that certain encroachments on required water flow levels are acceptable. The only viable alternatives are those which provide for judicially and federally mandated water flow requirements.

The Intertie Access Policy does not condition access on compliance with the Northwest Power Act or the Columbia Basin Fish and Wildlife Program. This is unacceptable as it clearly violates federal legislation as well as the purposes of the Program. The apparent assumption in this DEIS that compliance with the Act is already provided for is unjustified based on the poor track record in the Columbia River Basin. A fish and wildlife policy on Intertie access should be developed, and that policy should be consistent with the purposes of the Northwest Power Act and the Columbia Basin Fish and Wildlife Program. In addition this policy must include enforceable provisions requiring generating utilities or other federal project operators to be consistent with the Program.

The section (page 4.5-28) on possible mitigation measures is very weak. It has not been demonstrated that BPA has adequately complied with the provisions of the existing Columbia Basin Fish and Wildlife Program. Therefore we are not convinced that the largely duplicate mitigation measures listed in this section of the DEIS will do anything more to guarantee BPA's compliance with the Northwest Power Act, or the Columbia Basin Program, or its commitment to enhance the Columbia River fisheries.

The mitigation methods listed in this section are being used to correct already existing damage to and loss of fisheries in the Columbia River System. These measures should not be expected to mitigate for future adverse impacts created by the Intertie access and development. In addition, these mitigation measures have not been developed satisfactorily to date to rely on for mitigating additional losses.

The existing Columbia Basin Program, already includes a comprehensive listing of viable habitat improvement and barrier removal projects that are planned for use in mitigation for existing impacts due to hydropower operations on the Columbia River and its tributaries. These types of projects are therefore for mitigation of existing impacts and cannot be relied on to mitigate for additional impacts due to Intertie expansion. Additionally, it is not proven that transportation is a viable means of increasing or improving downstream transportation of Chinook salmon smolts. We would again make the point that any interference in upriver wild stocks at this time is a risk that the region is not willing to accept.

The Shoshone-Bannock Tribes have frequently made public comment on the inadequacy of hatchery production in mitigation for upriver wild stocks. The reliance on additional hatcheries does not address the fundamental issues of protecting habitat and assuring adequate flows to these wild stocks of particular concern to the Shoshone-Bannock Tribes. The negative impacts of the

proposed Intertie development and access policy on anadromous fish stocks may be greater in relation to wild stocks of fish in upriver areas than on Lower Columbia River stocks. Recent increases in run sizes may be attributable largely to increases in hatchery stocks. Wild/natural producing stocks are still severely depressed in upriver areas. There is no clear indication of any impending improvement. Any increases in downstream mortality attributable to BPA Intertie operations could even be more detrimental or catastrophic to these populations. A clear long-term trend indicating strong recovery in any Chinook stocks is not as yet indicated. This is particularly true of upriver wild Chinook stocks. The Shoshone-Bannock Tribes place a strong cultural importance on these upriver wild stocks. A value cannot be placed on these wild stocks equivalent to values associated with hatchery stocks. In addition we do not feel there is adequate information available at this time to place reliable significance levels on increases or decreases in mortality of upriver wild Chinook runs.

The DEIS indicates no significant change in the ability to meet the Water Budget in the Lower Granite Dam. However the Water Budget has never been met at Lower Granite Dam and there is no clear indication that the Water Budget will be met in the future. The proposed BPA Intertie alternatives could only complicate and constrain the ability to meet the Water Budget at this dam or any other upstream dam. Also, we find little evidence that this DEIS adequately addresses the possible cumulative impacts of Intertie expansion. Therefore, in the view of the Shoshone-Bannock Tribes, any decision made based on this document would be suspect.

The DEIS accepts an additional delay of one day in downstream migration time as an acceptable consequence of Intertie expansion. In low or moderate water years travel time may already exceed 30 days for some stocks, therefore it is a travesty to conclude that an increase in even one day would have no significant impact on mortalities (page 4.5-10). Even in a good water year a certain percentage of smolts that do not make the trip in 30 days. To increase that travel time can only result in unpredictable increases in the percentage of nonviable smolts. In the case of upriver wild Chinook stocks, which are already in a state of jeopardy due to the vagaries of numerous hazards on their upstream and downstream routes, even a slight increase in downstream mortality can be disastrous and unacceptable to the Shoshone-Bannock Tribes. The mortality factors on upriver wild stocks are variable and unpredictable. Adding more sources of potential mortality further complicates an already untenable situation.

The Shoshone-Bannock Tribes are also concerned that all projects considered in the DEIS are Federal projects. No consideration of resident fish in private reservoirs, i.e. Idaho Power reservoirs has been made. At this point in time relationships between those private owners and BPA and their compliance or cooperation with BPA Intertie proposals is unclear. Therefore the DEIS is lacking in its decisionmaking capabilities concerning impacts to resident fish population (Section 4.5).

In summary, the Shoshone-Bannock Tribes do not believe that the DEIS adequately addresses potential impacts of upgrading the intertie capacity and promulgating a long-term Intertie Access Policy on the Tribes' Treaty-related fishing rights. In particular, the assessment of potential impacts on Columbia River Basin fishery resources does not adequately account for uncertainties associated with maintenance of the basin's wild fish stocks.

The Northwest Power Planning Council, state and federal fish and wildlife agencies, Indian tribes and interested members of the public have acted and are continuing to act in a cooperative manner to protect, enhance and mitigate for impacts of the Columbia River Basin's hydroelectric facilities on fish and wildlife. We do not believe that Bonneville is empowered to upgrade the capacity of the Intertie or promulgate an Intertie Access Policy in a manner that is inconsistent with the region's fish and wildlife program.

Sincerely,

Arnold Appenay
Tribal Chairman

PUGET SOUND POWER & LIGHT COMPANY

January 15, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999--ALP
Portland, OR 97212

Re: BPA File No. TIE-1: Bonneville Power Administration Draft Environmental Impact Statement on Intertie Development and Use (Volume 1) and Proposed Long-Term Intertie Access Policy (Volume 2)

Dear Ms. Geiger:

In response to BPA's Federal Register notice (51 F.R. 39904) of November 3, 1986 requesting comments on its proposed Long Term Intertie Access Policy and to the request for comments on the draft Intertie Development and Use Environmental Impact Statement ("draft EIS"), Puget Sound Power & Light Company ("Puget") submits the comments set forth below. Puget also strongly endorses the principles of the Draft Proposed Alternative Long Term Intertie Access Policy prepared by Merrill Schultz and attached to these comments (the "Draft Alternative Policy.") BPA's adoption of a policy consistent with the Draft Alternative Policy will address a number of the significant concerns which we discuss below.

1. General. We have previously stated, and we reiterate here, the following positions:

(i) The Intertie was intended by Congress to benefit the Northwest utilities and not just BPA. The Intertie was constructed on the basis of regional consensus and was intended to serve as a common carrier for the benefit of Northwest utilities. BPA is required by statute to provide available capacity on the Intertie to Northwest utilities on a fair and nondiscriminatory basis;

(ii) BPA has no authority to use its intertie access policy to protect the "Administrator's Power Marketing Program" or BPA's power marketing program or power operations;

(iii) BPA has no authority to deny intertie access based on its perception of fish and wildlife impacts of generating resources or of compliance with applicable licenses, permits or other provisions of state or federal law; and

(iv) BPA, in selling power, must comply with the statutory requirements of P.L. 88-552 (16 U.S.C. §§ 837-837h) (the "Regional Preference Act").

2. Exportable Agreement. No BPA policy can substitute for long-term BPA contractual commitments for reliable intertie access on a reasonable and fair basis. These commitments are necessary so that utilities know that they will be able to plan and operate resources in an economical manner. Without these commitments, utilities will tend to plan and construct otherwise unnecessary additional transmission facilities, thus depriving BPA of transmission revenues it might otherwise receive and forcing misallocation of resources through BPA's policy.

Puget endorses the principles embodied in the Exportable Energy Agreement for inclusion both in the BPA Long Term Intertie Access Policy and in a successor agreement by BPA, to replace the Exportable Energy Agreement when it expires. Such a successor agreement should be made available by BPA to any scheduling utility in the region. Of course, BPA should maintain the import priority for utilities in the region to meet their firm obligations.

3. Participation in Intertie. Puget has previously expressed and continues to have an interest in participating on an ownership basis in expansions or upgrades of the Pacific Intertie, such as the third AC Intertie Line. Any BPA intertie policy must not be inconsistent with such participation. It appears unnecessary that federal funds be expended on this project, in light of utilities such as Puget which are willing to discuss participating in the project and providing funds in return for an ownership type of interest. BPA, as well as Pacific Power & Light Company, have each committed to developing business arrangements with interested Pacific Northwest scheduling utilities for participation,

through contribution of funds or facilities, in upgrading the capacity of the Intertie and establishing a third AC Intertie line. See BPA letter to Pacific dated October 5, 1984, Pacific letter to BPA dated August 2, 1984 (paragraph 3 in particular), Puget letter to Department of Energy dated January 31, 1985 (including copy of attached Puget letter to WAPA dated September 4, 1984), copies of all of which letters are attached hereto and incorporated herein by this reference.

4. Firm Peaking Capacity Sales and Exchanges. There is no basis for BPA to attempt to discriminate against transmission for firm peaking capacity sales or seasonal or other exchanges. BPA and the region's utilities have varying firm peaking capacity and energy surpluses or deficits. Exchanges, for example, aid flexibility and help the various utilities to balance their loads and resources and dispose of surpluses. The long-term assurance of reasonable access to transmission to facilitate exchanges promotes rational resource planning and operation. (See sections E and F of the Draft Alternative Policy.)

5. BPA's Power Marketing Program. BPA has no authority to use, and should not attempt to use, its intertie access policy to protect or enhance BPA's Power Marketing Program.

The term "BPA's Power Marketing Program" or "Administrator's Power Marketing Program" is so vaguely and broadly defined in the draft Policy as to be meaningless. As noted by one federal court, "the establishment of written, objective, and ascertainable standards is an elementary and intrinsic part of due process." Baker-Chaput v. Cammett, 406 F. Supp. 1134, 1140 (D.N.H. 1976). BPA's draft Policy fails to include a "written, objective, and ascertainable" definition of its power marketing program. Defining a program as "actions taken and policies developed" to fulfill, among other things, undefined "policy objectives" and based upon an asserted "broad authority" provides no objective or ascertainable standard. BPA may not, consistent with due process standards, justify impairment of Scheduling Utilities' rights of access to the intertie on the basis of such a definition.

BPA is required by statute to "make available to all utilities on a fair and nondiscriminatory basis . . ." capacity which is available on the BPA transmission system. (The Federal Columbia River Transmission System Act, P. L. 93-454, 16 U.S.C. §§ 838-838k (the "Transmission System Act"), Section 6.) Similarly, Section 6 of the Regional Preference Act requires that any excess capacity in the intertie "shall be made available as a carrier for transmission of other electric energy . . . ."

The legislative history of the Regional Preference Act clearly states that the BPA Administrator may not decline to enter into a wheeling agreement merely because he may have energy available for sale to serve the same load. (H.R. Rep. No. 590, 88th Cong., 2d Sess., reprinted in 1964 U.S. Code Cong. & Ad. News at 3350.) Intertie transmission access must be made available without regard to BPA's Power Marketing Program and cannot be refused based on the fact that the Administrator "may have energy available for sale to serve the same load." Id.

The draft Policy is particularly egregious with respect to the restrictions on capacity/energy or seasonal exchange contracts of Scheduling Utilities. These restrictions clearly disregard the explicit legislative intent that BPA may not decline to enter into a wheeling agreement merely because it may have energy available for sale to serve the same load.

BPA has previously suggested that Section 9 of the Pacific Northwest Electrical Power Planning and Conservation Act, P.L. 96-501, (the "Regional Act"), permits it to decline to enter into contracts for Intertie transmission services in order to protect or enhance BPA's Power Marketing Program. The Regional Act includes no such authorization, however. Section 9(i) relates to BPA's obligations upon request of its customers to acquire power for such customers, to dispose of their power or to assist them in the disposal of their power (such as power from WPPSS 4 and 5). Section 9(i) in its entirety relates only to services which BPA provides in connection with such requests. It does not apply to BPA transmission of a customer's power, unrelated to requests for BPA's acquisition of power for such customer or disposal or assistance in disposal of such customer's power pursuant to Section 9(i). This is supported by language in the legislative history of the Regional Act:

> Section 9(i) sets forth additional services BPA is to provide its customers, at their request and expense, with respect to power sales and purchases of their own . . . .

(H.R. Rep. 96-976, Part II (Interior), at 56.)

More importantly, Section 9(d) of the Regional Act expressly states that the Administrator shall provide transmission for nonfederal power, subject only to the Administrator's contractual obligations, any other obligations

under existing law and available federal transmission capacity and further indicates that such services are in addition to the services to be provided pursuant to Section 9(i)(3):

> In addition to the directives contained in subsections [9](i)(1)(B) and [9](i)(3) and subject to:
>
> (1) any contractual obligations of the Administrator,
>
> (2) any other obligations under existing law, and
>
> (3) the availability of capacity in the Federal transmission system,
>
> the Administrator shall provide transmission access, load factoring, storage and other services normally attendant thereto to such utilities and shall not discriminate against any utility or group thereof on the basis of independent development of such resource in providing such services.

(Emphasis added.)

Legislative history with respect to Section 9(d) states as follows:

> Section 9(d) serves two purposes. First, it clarifies that utilities (unlike BPA) are free to dispose of their own non-Federal power (both firm and non-firm) so long as they do not thereby increase BPA's firm power obligations. Second, the subsection requires BPA to provide available services and facilities to such utilities for such sales, and prohibits BPA from discriminating in the provision of such services against any utility or group thereof on the basis of their independent development of resources. Both parts of this subsection therefore preserve the individual and collective independence of utilities and groups of utilities, as well as reaffirming the requirement contained in Section 6 of the Federal Columbia River Transmission System Act. . . .

(H.R. Rep. 96-976, Part II (Interior), at 55.) Thus, Section 9(d) clearly indicates:

(a) that Section 9(i)(3) provides for services in addition to the transmission services provided by BPA under existing statutes such as the Transmission System Act or the Regional Preference Act;

(b) that BPA's obligation to provide transmission services provided under existing statutes is qualified only by the "existing law" as of the adoption of the Regional Act (and is not qualified by Section 9(i)(3) or any other provision of the Regional Act);

(c) that the requirement in the Transmission System Act for fair and nondiscriminatory access to federal transmission services is not repealed by the Regional Act; and

(d) that in any event, utilities cannot be discriminated against in receiving BPA transmission services on the basis of independent development of resources.

The Administrator's restriction of transmission services for nonfederal power to gain a competitive advantage in marketing federal power would be unfair and an obviously prohibited form of such discrimination. These matters are discussed in greater detail in our letters to BPA dated April 3, 1986 and February 20, 1986, copies of which are attached hereto and incorporated herein by this reference.

In short, BPA has no authority to restrict transmission service in order to protect BPA's ability to market power. BPA has no authority, for example, to impose the conditions with respect to purchases from BPA, interference with marketing of BPA power, support of or interference with the Administrator's Power Marketing Program, operation in an "economical" manner, or BPA's ability to recover revenues set forth in items C.2, C.3, C.4 and E.4 of the draft Policy, and those conditions must therefore be deleted. Similarly, BPA has no authority to impose the conditions with respect to reserving "for BPA's use Intertie Capacity sufficient to transmit the full amount of BPA's surplus firm power" in item D.1, "net decrease in the region's surplus" in item E.2.b(2), BPA's planning horizon of load/resource balance in item E.4 or BPA's "ability to serve Pacific Northwest load" and purchases from BPA to meet a deficit in item E.7, and those conditions must be deleted. We also note that the "legal interpretation" is expressed in very vague terms. (For example, the definition of "power marketing program" is, like the definition of "Administrator's Power Marketing Program" in the draft Policy, so vague it is both meaningless and contrary to law.)

It is also unwise as a matter of policy to use BPA's intertie access policy to protect or enhance BPA's Power Marketing Program. Imposition of conditions on transmission of nonfederal power related to BPA's power operations and marketing programs can lead to otherwise unnecessary duplication of transmission facilities. As recognized by BPA at page 11 of its discussion preceding the draft Near-Term Intertie Access Policy:

> Federal transmission facilities were constructed, on the basis of general Pacific Northwest utility consensus, in order to avoid the costly facility duplication which would result if all utilities in the region were to construct their own facilities.

If BPA were to now condition intertie access to prevent interference with its power marketing programs, the detrimental effects would be felt by those who have relied upon the cooperative planning and constructive approach. This would be patently unfair and can only, in the long run, lead to otherwise unnecessary duplication of transmission facilities and misallocation of resources. These matters are discussed further in our letters to BPA dated March 15, 1985 and August 13, 1984, copies of which are attached hereto and incorporated herein by this reference.

6. Resource Type; Restrictions on Export; Fish and Wildlife; Licenses, Permits and Laws. Access to BPA intertie transmission service cannot and should not be qualified by (i) the type of resource or its apparent desirability; (ii) restrictions (such as "call-backs") unrelated to the transmission itself; or (iii) perceived fish and wildlife impacts of generating resources or compliance with licenses, permits or laws in connection with development or operation of generating resources. BPA has no authority to impose such qualifications on intertie access, and such qualification can only, in the long run, lead to otherwise unnecessary duplication of transmission facilities and misallocation of resources.

These matters are discussed at considerable length in our letters to BPA dated March 15, 1985 and August 13, 1984, copies of which are attached hereto and incorporated herein by this reference.

There is no basis under the statutory requirements applicable to BPA, including those in the Regional Preference Act and the Transmission System Act discussed above, for

discriminating against, or restricting intertie access for, any resources of Scheduling Utilities, such as new regional resources (e.g., BPA's attempt in item A.14 to restrict access for a new regional resource unless the Administrator determines it is necessary to fulfill certain firm power contracts).

Items C.3.c, E.8.a, F.2.d, I.3 and the last sentence of F.1 of the draft Policy are among those provisions which are not authorized by law and must be deleted.

Nothing in the applicable statutes authorizes or requires that intertie access be limited so as to force compliance with the Fish and Wildlife Program, to protect fish and wildlife resources, to prevent impacts on BPA fish and wildlife expenditures or to condition access based on compliance with all applicable licenses, permits or other provisions of state or federal law. (The draft Policy could even lead to the anomalous and inconsistent situation of discouraging the development of resources which are encouraged by statutes such as the Public Utility Regulatory Policies Act or the Regional Power Act.)

Section 4(h)(11) of the Regional Act requires that the federal agencies responsible for managing, operating or regulating hydroelectric facilities on the Columbia or its tributaries "exercise such responsibilities consistent with the purposes of this Act and other applicable laws" to protect fish and wildlife affected by such facilities. (Emphasis added.) Thus, this section is specifically limited by a requirement for compliance with other applicable laws. This is consistent with Section 9 of the Regional Act, which, as discussed above in some detail, clearly indicates that no authority to restrict BPA's obligations to provide transmission services under existing statutes was created by the Regional Act. Moreover, Section 4(h)(11) of the Regional Act is limited to exercise of responsibilities to manage, operate or regulate hydroelectric facilities on the Columbia River or its tributaries. This simply does not apply to intertie access.

Section 4(h)(10) of the Regional Act relates to BPA authority to fund certain fish and wildlife activities (and does not relate to transmission service). For example, see H.R. Rep. No. 96-976, Part II (Interior), 96th Cong., 2d Sess. at 45. Moreover, Section 4(h)(10), even if assumed for purposes of argument to apply to intertie access, requires by its very terms that BPA's actions thereunder be consistent with (among other items) the purposes of the Regional Act, which

include the assurance of an adequate, efficient, economical and reliable power supply for the region. Items II.C.2.c and II.C.6 fail to consider any such requirement for consistency with this purpose of the Regional Act (particularly in light of the fact that BPA restrictions on intertie access may well discourage the development of resources needed to meet regional loads).

In short, the language in Sections 4(h)(11) and 4(h)(10) relates only to hydroelectric projects on the Columbia or its tributaries and cannot be stretched beyond recognition to apply to intertie access, thereby amending specific statutory provisions related to BPA transmission. This is particularly true in light of the clear language and intent of Section 9(d), discussed above.

7. Surplus; Exhibit B. Firm access to BPA's intertie capability, if allowed at all, should not be limited to "total energy surplus" or "average firm energy surplus." There should be no priority intertie access for "firm energy surplus." If BPA is going to allow firm contracts for intertie access, BPA should not determine a regional utility's right to a firm contract by some artificial calculation or procedure such as "Exhibit B." These matters are discussed in greater detail in our letter to BPA dated September 20, 1984, a copy of which is attached hereto and incorporated herein by this reference.

Moreover, the methodology to be used to determine Exhibit B values is flawed for several reasons. BPA proposes to use "regional planning documents" to develop Exhibit B. In addition to our obvious concerns regarding BPA's forecasting loads and determining what other utilities may or may not do based on that forecast, we are concerned about the inference from this methodology that utilities can use any firm energy they acquire to make firm sales outside the region. This is not true in many instances. For example, utilities cannot make "requirements" purchases from BPA for resale. The key point here is that full requirements purchasers of BPA power cannot, by definition, have a firm surplus unless the purchaser has added resources after the date of the Regional Act (5(B)(1)(b) resources) which are not claimed in the Power Sales Contract. In any event, such instances must also comply with the Regional Preference Act. Regional planning documents also may not reflect current resource situations and certainly do not reflect firm surpluses for any given operating year pursuant to the Coordination Agreement.

The methodology used by BPA to develop Exhibit B does not take into account peak surplus that a utility might desire to sell outside the region. As BPA is well aware, much of the desire for firm purchases by southwest utilities is for peak.

If BPA is going to allow firm contracts on the intertie which have priority over allocations of intertie capacity, BPA should not determine a utility's right to attain such firm contract by some artificial calculation or procedure. Each utility should make its own determination of its loads and resources, its contractual constraints and the risks it will take in offering firm sales to the Southwest. BPA's decision as to whether firm transmission rights may be purchased should hinge solely on the firmness of the bilateral contract. Such comments were offered by Merrill Schultz to BPA in a letter dated August 10, 1984, and we reaffirm the appropriateness of those comments.

8. Sanctions. The references to sanctions or "an appropriate sanction for noncompliance" are vague, ill-defined and fail to establish any ascertainable standard. As such, they are clearly illegal for the reasons set forth above and must be deleted.

9. Formula Allocation. There is no basis for allocating intertie access based on surplus hydroelectric energy, and certainly no basis for limiting an allocation by application of the ratio of the Scheduling Utility's hydroelectric capacity to the total regional hydroelectric capacity multiplied by the total of all allocations. Such an allocation procedure is unjustified, arbitrary, capricious and contrary to the requirements, discussed above, of the Regional Preference Act and the Transmission System Act.

10. Reciprocal Access. Intertie access provided by BPA to extra-regional utilities may well adversely affect the Intertie access made available by BPA to regional utilities such as Puget. As discussed above, the Intertie was intended by Congress to benefit not only BPA but also Northwest utilities. Accordingly, BPA's Intertie policy should ensure that extra-regional utilities which receive Intertie access from BPA provide reciprocal access on their transmission systems to BPA and regional utilities. See, e.g., Section I of the Draft Alternative Policy.

The cumulative impact of the provisions of the draft Policy is unfair, arbitrary and capricious and in violation of due process.

Very truly yours,

PUGET SOUND POWER & LIGHT COMPANY

By 

R. G. Bailey
Vice President
Power Systems

Attachments

attachment
TIE-1-71

Proposed Alternative Long Term Intertie Access Policy DRAFT

MSS -- 12/12/86

A. Definitions

1. "Administrator" means the Bonneville Power Administrator and is used interchangeably herein with "Bonneville Power Administration" and "BPA."

2. "Assured Delivery" means Intertie transmission service provided by BPA pursuant to this policy that, for the term agreed by BPA in the transmission contract and regardless of changes of this policy, is interruptible by BPA only as a result of uncontrollable forces.

3. "Extraregional Utility" means a Scheduling Utility which serves no end-use consumer in the Pacific Northwest.

4. "FD-Supported Sales" means that portion of a firm power sale by a Regional Utility to an entity in the Southwest that is substantially equal to the Regional Utility's purchase of BPA Firm Displacement Power.

5. "Intertie Capacity" means transmission capacity of the Pacific Intertie which is controlled by BPA through ownership or contract right and available for the schedule of delivery of power between the Pacific Northwest and the Southwest.

6. "Intertie Coordinating Agreement" means a multi-party agreement intended by BPA to be established between BPA and Scheduling Utilities desiring access to Intertie Capacity, to implement certain aspects of this policy, chiefly transactions provided among BPA, Scheduling Utilities having Assured Delivery and Scheduling Utilities having allocations of Intertie Capacity under Section F hereof.

7. "Pacific Intertie" means those high-voltage (500 kV and above) transmission facilities, as designated by the Administrator, which connect the power system of the Pacific Northwest with that of the Southwest across the Oregon border with California and Nevada.

8. "Pacific Northwest" means the area defined in the Northwest Regional Preference Act (Public Law 88-552).

9. "Regional Utility" means a Scheduling Utility which serves end-use consumers within the Pacific Northwest.

10. "Scheduling Utility" means an electric utility, not including BPA, that operates an electric generation control area, together with any utility within BPA's generation control area that schedules transactions with BPA and is so designated by BPA.

11. "Section 9(i)(3) Priority Sales" means those sales designated by the Administrator as receiving priority under Section 9(i)(3) of the Pacific Northwest Power Act (Public Law 96-501).

12. "Southwest" means Extraregional Utilities that have access by ownership or contract to the Pacific Intertie.

B. Term

This policy is effective on July 1, 1987, and will continue in effect until terminated or modified by the Administrator.

C. Conditions for Intertie Access

1. The Administrator will provide Assured Delivery or will allocate Intertie Capacity to BPA and to Scheduling Utilities pursuant to the conditions and procedures set forth in this policy, unless otherwise provided by the terms of contracts existing

on July 1, 1987, and listed in Exhibit C. Any Intertie transmission services provided for entities other than Scheduling Utilities or BPA must be arranged through the Scheduling Utilities, or BPA, responsible for the control of the transaction.

2. BPA will provide Assured Delivery or allocations of Intertie Capacity only for transactions of BPA and Regional Utilities, except to the extent that transactions of Extraregional Utilities are permitted access under this policy. For purposes of determining access to Intertie Capacity, Regional Utility declarations of available surplus energy shall not include amounts of energy that have been purchased from an Extraregional Utility, unless the Administrator would otherwise have provided direct access for such energy of the Extraregional Utility at such time. If the Administrator determines that energy purchased from an Extraregional Utility has been impermissibly included in a Regional Utility's declaration of surplus energy, BPA will adjust the Regional Utility's declaration accordingly.

3. The Administrator will provide Assured Delivery and allocations of Intertie Capacity to Regional Utilities and, under conditions provided in this policy, to Extraregional Utilities only when providing such access will not (a) substantially interfere with the operating reliability requirements of the Federal Columbia River Power System, or (b) conflict with legal or contractual obligations of the Administrator.

4. Any Scheduling Utility that has access to a Southwest Scheduling Utility by contractual or ownership rights in transmission capacity not included in Intertie Capacity will be required to use such rights prior to requiring access to Intertie Capacity for any transaction with the same Southwest Scheduling Utility.

D. Intertie Capacity Reserved for BPA (BPA Reservation)

BPA will reserve for its use amounts of Intertie Capacity as follows, in aggregate, but without overlap:

1. An amount sufficient to market BPA's surplus Firm Energy Load Carrying Capability, shaped seasonally and hourly as reasonably anticipated by BPA for best use
2. An amount sufficient to perform BPA's obligations under its existing contracts, as listed in Exhibit C, and its new firm contracts
3. An amount sufficient to provide Assured Delivery for FD-Supported Sales
4. An amount sufficient to provide Assured Delivery for Section 9(i)(3) Priority Sales

E. Assured Delivery for Intertie Access

BPA will provide Assured Delivery appropriate to the firm power delivery requirements of qualifying Regional Utilities' contracts. For Assured Delivery not included in the BPA Reservation, the Scheduling Utility must be a signatory of the Intertie Coordinating Agreement, which will implement the provisions of this policy. It is BPA's intention to make the excess of Intertie capacity above the amount required for the BPA Reservation, as adjusted for schedules in the direction opposite of that which may require allocation, to be made available for both Assured Delivery and formula allocation, as described in Section F below.

A Regional Uutility requesting Assured Delivery for a contract must submit a copy of the proposed contract to the Administrator. The Administrator will review the contract and will, in a timely manner, inform the Regional Utility (1) of the amount of Assured Delivery which will be provided and (2) of the terms and

conditions which will apply to transactions under the contract. Assured Delivery for a contract will not be denied except if:

1. There is not sufficient Intertie Capacity remaining for Assured Delivery under the proposed contract,
2. The transactions provided by the contract are determined not to be firm transactions. A transaction will be considered firm if the contract provides the receiving party of any delivery thereunder the right to demand such delivery during the period of time specified for it, or
3. The Scheduling Utility requesting Assured Delivery is not a party to the Intertie Coordinating Agreement.

F. Formula Allocation Methods

1. The amount of Intertie capacity available for formula allocation in either direction will be the Intertie Capacity available for schedule in such direction, adjusted appropriately by the BPA Reservation. BPA will determine the amount of Intertie Capacity available for formula allocation, and will determine the allocation according to the formulas described below.

2. One of three formulas will be used to allocate the available Intertie Capacity, depending on which of these following three conditions exists:

a. Condition 1: When Exportable Energy is being scheduled pursuant to the terms of the Exportable Agreement (BPA Contract No. 14-03-73155) or a successor agreement containing substantially equivalent allocation provisions, Intertie Capacity will be allocated according to the Exportable Agreement, as modified by the Intertie Coordinating Agreement described in Section G below. The Exportable Agreement expires by its terms on December 31, 1988; if there is no successor agreement, there will be no Condition 1.

b. Condition 2: When Condition 1 is not in effect, but BPA

and Regional utilities declare amounts of power available for access to the Intertie that exceed the available Intertie Capacity, the capacity will be allocated pursuant to the following procedure, as modified by the Intertie Coordinating Agreement described in Section G below:

(1) On any day the Regional Utilities observe as a normal workday, each Regional Utility will submit to BPA declarations of desired hourly Intertie schedules for the period beginning at midnight of the day of declaration and normally continuing through midnight of the next normal workday.

(2) For each hour of such declaration the Regional Utility shall also specify the portion of desired schedule which is an Assured Delivery.

(3) BPA's and the Scheduling Utilities' preliminary allocation for each hour will be determined and will approximate the ratio of each declaration to the sum of all declarations for each hour multiplied by the available Intertie Capacity.

(4) For each Regional Utility whose preliminary allocation is less than its Assured Delivery, its allocation will be increased to equal its Assured Delivery. The difference will be reflected first in BPA's allocation, to the extent that BPA has a preliminary allocation, and then, if necessary, in the allocations of Regional Utilities, pro rata, whose preliminary allocations exceed their Assured Deliveries.

c. Condition 3: When Condition 1 is not in effect, and when BPA and Regional Utilities declare power available for access to the Intertie in an amount that does not exceed the available Intertie Capacity, BPA's and each Regional Utility's allocations will be equal to their declarations.

G. Intertie Coordinating Agreement

1. It is BPA's intent to negotiate an Intertie Coordinating Agreement among itself and Regional Utilities to permit Regional Utilities a beneficial and equitable balance between Assured Delivery and formula allocation to the unreserved portion of Intertie Capacity.

2. The Agreement will provide that, to the extent any party's allocation under Condition 1 or Condition 2, described above, is reduced by virtue of other parties' Assured Delivery, and to the extent that such party could have disposed of its preliminary allocation, such party may sell energy for such hour, up to the amount of the reduction in allocation, to the party(ies) whose Assured Delivery exceeds its preliminary allocation.

3. A party will be determined to have been able to dispose of its preliminary allocation if it is able to schedule substantially its reduced allocation.

4. The price of the energy will be the average price, at the source, of the energy which the selling party was actually able to sell over its reduced allocation.

H. Access for Extraregional Utilities

1. Extraregional Utilities will not be granted Assured Delivery, except as provided in the contracts shown in Exhibit C or as provided in Section I below.

2. Prior to the expiration of the Exportable Agreement or its successor, if any, access under Condition 1 is limited by the terms of said Agreement to its signatories. Except as provided in Section I below, Extraregional Utilities will not receive an allocation of Intertie Capacity under Condition 2. Under condition 3, Extraregional Utilities will have access to the Intertie to the extent that Intertie Capacity is available in excess of the capacity used by BPA and Scheduling Utilities, except as provided in Section I below.

I. Special Provisions for Canadian Scheduling Utilities

1. Canadian Scheduling Utilities will be granted Assured Delivery only by contract with BPA. Such contract must include assurance of benefits to BPA and Regional utilities such as increased storage, improved system coordination or operations, or disposition of downstream benefits under the Columbia River Treaty beginning in 1998. In addition, such contract must contain provisions assuring BPA and Regional utilities reciprocal use of the transmission systems of the Extraregional Utilities which are parties. Such Assured Delivery will also be conditioned on an increase of total Intertie transfer capability to an amount greater than 7500 MW.

2. BPA may, by contract, provide Canadian Scheduling Utilities limited access to Intertie Capacity under Condition 2, described above. Such access, however, would be conditioned on the Canadian Scheduling Utilities' participation in the Pacific Northwest's coordinated planning and operation to a greater extent than in the past or agreement to provide other appropriate consideration of value to BPA and Regional Utilities.

3. Under Condition 3, Canadian Scheduling Utilities will have access to the Intertie to the extent that Intertie Capacity is available in excess of the capacity used by BPA, Regional Utilities and U.S. Extraregional Utilities.

J. Exhibits

Department of Energy
Bonneville Power Administration
PO Box 3621
Portland, Oregon 97208

In reply refer to: PB

OFFICE OF THE ADMINISTRATOR

OCT 5 1984

Attachment 4
TIE-1-71

Mr. D. F. Bolender, President
Pacific Power & Light
920 SW. Sixth Avenue
Portland, OR 97204

Dear Mr. Bolender:

I have signed your letter of August 2, 1984, and agree that it correctly summarizes some important principles that we have concurred with and that the Bonneville Power Administration (BPA) and the Pacific Power & Light Company (Pacific) should consider in any contract negotiations regarding the construction of a third AC Intertie. BPA will be cognizant of these principles in any such negotiations. As the principles recognize, any BPA proposals that may evolve from these principles will be made consistent with applicable law, including the National Environmental Policy Act (NEPA).

BPA looks forward to continued discussions and close cooperation with Pacific in the transmission areas which are the subject of your letter.

Sincerely,

Peter T. Johnson

Administrator

IFIC POWER & LIGHT COMPANY
SW SIXTH AVENUE · PORTLAND, OREGON 97204 · (503) 243-[illegible]

David F. Bolender
President

August 2, 1984

Peter T. Johnson, Administrator
Bonneville Power Administration
P. O. Box 3621
Portland, Oregon 97208

Dear Mr. Johnson:

During the past several months, Pacific Power & Light Company has worked with the Bonneville Power Administration toward development of increased transfer capability between the Northwest and California for the benefit of the Pacific Northwest. These continuing discussions specifically involve upgrading the d-c capacity and establishing a third a-c line.

As we have discussed, the potential benefits of increasing these transfer capabilities significantly outweigh the expected costs. It is my understanding that these discussions have produced agreement on some important principles, among them:

1. BPA and Pacific will use best efforts to complete both contemplated facilities at the earliest possible date.

2. BPA, Pacific, and Portland General Electric Company have provided the facilities which comprise the existing Northwest to California transfer capability. These existing Northwest facilities are capable of delivering more power to the Oregon border than California's existing transmission can accept. This existing surplus transmission capability will be considered in the determination

of appropriate shares of any increases in the a-c intertie transmission capability.

3. BPA and Pacific will develop appropriate business arrangements and work closely with other interested Pacific Northwest scheduling electric utilities for participation through contribution of funds and/or facilities.

4. Consistent with applicable law, policies, and practices, BPA will provide main system transmission system capability and Pacific will provide integration services to the extent possible to utilities not directly connected to intertie facilities.

5. Studies to date show that completion of both projects at the earliest date maximizes overall operational flexibility and reliability. Potential control of some impacts of inadvertent flow is provided by the d-c terminal uprate. A new 500 kV a-c facility constructed with physical separation from the existing intertie facilities in Northern California adds significantly to the reliability of the WSCC system.

6. Where possible, technical and environmental studies for these projects will be combined to minimize duplication of effort. All studies will be shared.

7. Projects will proceed independently with permitting and construction.

8. BPA and Pacific will: (1) encourage all agreements needed among third parties to complete both projects, (2) attempt to secure agreements between Northwest and California entities in concert with the above principles, (3) seek to complete negotiations of Northwest agreements as soon as possible, and (4) work to keep interested parties informed.

If you concur in these principles, please so indicate by executing below and returning one copy of this letter to me.

I believe these principles form a solid foundation for continued rapid progress in providing expanded benefits to the Pacific Northwest.

Very truly yours,

PACIFIC POWER & LIGHT COMPANY

By _____
President

Accepted this 5th day of
October, 1984

BONNEVILLE POWER ADMINISTRATION

By _____
Administrator

PUGET POWER

attachment
TE-1-71

January 31, 1985

Mr. Stanley W. Hulett, Director
California Energy Project
Office of the Secretary
United States Department of Energy
333 Market Street
San Francisco, California 94105

Re: Third 500-kV AC Pacific Intertie Line

Dear Mr. Hulett:

This is in response to the request for comments published in the Federal Register, Vol. 50, No. 2 January 3, 1985 regarding the above. These comments are submitted on behalf of Puget Sound Power & Light Company (Puget). In response to Western Area Power Administration's request in the August 6, 1984 Federal Register for Statements of Interest in connection with the above, Puget submitted its Statement of Interest for Participation in the Development of the Third AC Intertie. A copy of that statement, dated September 4, 1984, is attached hereto and incorporated herin by that reference.

We believe, and have been advised, that utilities such as Puget are to be afforded an opportunity to participate in the development of the Third AC Intertie and that discussion regarding such participation will soon commence. In that regard, we notice that the "Conceptual Plan for a New 500-kV AC Transmission Line between the Pacific Northwest and California" transmitted by letter dated December 24, 1984 to the Honorable Thomas P. O'Neill from the Secretary of Energy, on Page 2, stated with regard to financing of the intertie:

> "No Federal funds will be required for the Project's facilities except that Federal funds could be incurred in the Northwest for additions to existing transmission facilities."

Puget has expressed and continues to have an interest in participating on an ownership basis in the Third AC Pacific

Intertie. It appears unnecessary that federal funds be expended on this project, in light of utilities such as Puget which are willing to discuss participating in the project and providing funds in return for an ownership type of interest.

Very truly yours,

R. G. Bailey
Vice President
Power Systems

Attach.

cc: D. H. Knight
R. G. Bailey
J. A. Austin/W. A. Gaines
J. R. Lauckhart/W. L. Robinett
D. G. Kari
File
Green

PUGET POWER

September 4, 1984

Mr. David G. Coleman, Area Manager
Sacramento Area Office
Western Area Power Administration
2800 Cottage Way
Sacramento, CA 95825

Re: Western Area Power Administration
Intent to Construct a Third 500-kV AC Line to the Pacific Northwest-Southwest Intertie; Request for Statements of Interest

Dear Mr. Coleman:

In response to Western Area Power Administration's request in the August 6, 1984 Federal Register for Statements of Interest regarding the above, Puget Sound Power & Light Company ("Puget") is interested in participating in the development of the third AC Intertie and in accordance with your request, Puget hereby submits its Statement of Interest for Participation in the Development of the Third AC Intertie and submits the following information:

(1) Name of entity: Puget Sound Power & Light Company

(a) Management contact person(s) and phone number:

R. G. Bailey (206) 453-6720

(b) Technical contact person(s) and phone number:

R. G. Bailey (206) 453-6720

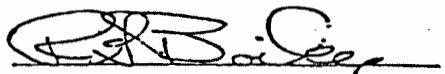
(2) Amount of transmission capacity (megawatts) sought on the third AC line: up to 200 MW

Of course, Puget's interest is in acquiring transmission capacity rights in the northern sections of the Pacific Northwest-Southwest Intertie ("the Intertie") so that Puget can make its power and energy available to utilities in the Southwest. We have expressed this interest to the Bonneville Power Administration ("BPA") and other Northwest utilities actively planning intertie capacity additions.

We look forward to discussing the possible terms and conditions that would mutually benefit Puget, WAPA and other Intertie participants and users.

Sincerely,

Puget Sound Power & Light Company

By: 

Its: Vice President Power Systems

RGB:jks

PUGET POWER

Attachment TIE-1-71

February 20, 1986

Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

RE: Bonneville Power Administration Proposed Legal Interpretation of Regional Act Section 9(i)(3) - BPA File No.: 9(i)(3)-86

Dear Public Involvement Manager:

This is in response to Bonneville's letter dated February 7, 1986, requesting comments on the above. Although proposed "legal interpretation" is very general and unclear, it certainly should not suggest that Bonneville may restrict transmission service in order to better market its own power. Such a restriction would be unfair and contrary to applicable law.

Section 9(i) of the Regional Act applies only to certain requests by Bonneville customers for assistance in acquisition or disposition of power and does not apply to BPA transmission service in general. Bonneville has no authority to restrict transmission access in order to protect its ability to market power. Of course, Bonneville may not by "legal interpretation" expand its authority beyond what is authorized by statute or deny rights created by statute.

Bonneville is required by statute to "make available to all utilities on a fair and nondiscriminatory basis . . ." capacity which is available on the Bonneville transmission system. P.L. 93-454 (Federal Columbia River Transmission System Act) Section 6. Similarly, Section 6 of P.L. 88-552 (Regional Preference Act) requires that any excess capacity in the intertie "shall be made available as a carrier for transmission of other electric energy . . . ." The legislative history of P.L. 88-552 clearly states that the Bonneville Administrator may not decline to enter into a wheeling agreement merely because he may have energy for sale to serve the same load. (H.R. Rep. No. 590, 88th Cong., 2d Sess., reprinted in 1964 U.S. Code Cong. & Ad. News at 3350.) Transmission access cannot be refused based on the fact that the Administrator "may have energy for sale to serve the same load."

Puget Sound Power & Light Company Puget Power Building Bellevue, Washington 98009 (206) 454-6363

Section 9(i) of the Regional Act relates to Bonneville's obligations upon request of its customers to acquire power for such customers, to dispose of their power or to assist them in the disposal of their power (such as power from WPPSS 4 and 5). Section 9(i) in its entirety relates only to services which Bonneville provides in connection with such requests. It does not apply to BPA transmission of a customer's power, unrelated to requests for Bonneville's acquisition of power for such customer or disposal or assistance in disposal of such customer's power pursuant to Section 9(i). This is supported by language in the legislative history of the Regional Act:

> "Section 9(i) sets forth additional services BPA is to provide its customers, at their request and expense, with respect to power sales and purchases of their own . . . ."

(H.R. Rep. 96-976, Part II (Interior), at 56.)

More importantly, section 9(d) of the Regional Act expressly states that the Administrator shall provide transmission for nonfederal power, subject only to the Administrator's contractual obligations, any other obligations under existing law and available Federal transmission capacity and further indicates that such services are in addition to the services to be provided pursuant to section 9(i)(3):

> ". . . In addition to the directives contained in subsections [9](i)(1)(B) and [9](i)(3) and subject to:
>
> (1) any contractual obligations of the Administrator,
>
> (2) any other obligations under existing law, and
>
> (3) the availability of capacity in the Federal transmission system,
>
> the Administrator shall provide transmission access, load factoring, storage and other services normally attendant thereto to such utilities and shall not discriminate against any utility or group thereof on the basis of independent development of such resource in providing such services."

(Emphasis added.)

Legislative history with respect to Section 9(d) states as follows:

> Section 9(d) services two purposes. First, it clarifies that utilities (unlike BPA) are free to dispose of their own non-Federal power (both firm and non-firm) so long as they do not thereby increase BPA's firm power obligations. Second, the subsection requires BPA to provide available services and facilities to such utilities for such sales, and prohibits BPA from discriminating in the provision of such services against any utility or group thereof on the basis of their independent development of resources. Both parts of this subsection therefore preserve the individual and collective independence of utilities and groups of utilities, as well as reaffirming the requirement contained in Section 6 of the Federal Columbia River Transmission System Act. . . ."

(H.R. Rep. 96-976, Part II (Interior), at 55.) Thus, section 9(d) clearly indicates:

(A) that section 9(i) (3) provides for services in addition to the transmission services provided by BPA under existing statutes such as the Transmission System Act or P.L. 88-552;

(B) that BPA's obligation to provide transmission services provided under existing statutes is qualified only by the "existing law" as of the adoption of the Regional Act (and is not qualified by Section 9(i)(3) or any other provision of the Regional Act);

(C) that the requirement in the Transmission System Act for fair and nondiscriminatory access to Federal transmission services is not repealed by the Regional Act; and

(D) that in any event utilities cannot be discriminated against in receiving BPA transmission services on the basis of independent development of resources.

The Administrator's restriction of transmission services for nonfederal power to gain a competitive advantage in marketing federal power would be unfair and an obviously prohibited form of such discrimination.

In short, BPA has no authority to restrict transmission service in order to protect BPA's ability to market power.

It is also poor policy to attempt to restrict transmission access. This can lead to otherwise unnecessary duplication of transmission facilities. BPA has itself recognized that Federal transmission facilities were constructed, on the basis of general Pacific Northwest utility consensus, in order to avoid the costly facility duplication which would result if all utilities in the region were to construct their own facilites.

If BPA were now to attempt to restrict transmission access to prevent interference with its power marketing, the detrimental effects would be felt by those who have relied upon cooperative planning and constructive approach. This would be patently unfair and can only in the long run lead to otherwise unnecessary duplication of transmission facilities and misallocation of resources.

Finally, we also note that the proposed "legal interpretation" is expressed in very vague terms. (For example, the definition of "power marketing program" is so vague it is meaningless.) These comments are submitted as a general discussion of Section 9(i)(3) and not as comments on any particular action Bonneville might in the future take in connection with providing priority to transmission services.

Very truly yours,

Puget Sound Power & Light Company

By: 

R. V. Myers
Senior Vice President
Operations

RVM/dmc

April 3, 1986

attachment
TIE-1-71

Public Involvement Manager
Post Office Box 12999
Portland, Oregon 97212

Re: BPA "Discussion Paper of Major Issues in the Development of the Draft Long-Term Intertie Access Policy (IAP)"

Dear Public Involvement Manager:

This is in response to BPA's letter dated March 11, 1986 requesting comments on the above.

Exportable Agreement.

No BPA policy can substitute for long-term BPA contractual commitments for reliable intertie access on a reasonable and fair basis. These commitments are necessary so that utilities know that they will be able to plan and operate resources in an economical manner. Without these commitments, utilities will tend to plan and construct otherwise unnecessary additional transmission facilities, thus depriving BPA of transmission revenues it might otherwise receive and forcing misallocation of resources through BPA's policy.

Puget endorses the principles embodied in the Exportable Energy Agreement for inclusion both in the BPA Long-Term Intertie Access Policy and in a successor agreement by BPA, to replace the Exportable Energy Agreement when it expires. Such a successor agreement should be made available by BPA to any scheduling utility in the region (as defined in PL 88-552). Of course, BPA should maintain the import priority for utilities in the region to meet their firm obligations.

Firm Peaking Capacity Sales and Exchanges.

There is no basis for BPA to attempt to discriminate against transmission for firm peaking capacity sales or seasonal or other exchanges. BPA and the region's utilities have varying firm peaking capacity and energy surpluses or deficits. Exchanges for example aid flexibility and help the various utilities to balance their loads and resources and dispose of surpluses. The long-term assurance of reasonable access to transmission to facilitate exchanges promotes rationale resource planning and operation.

Puget Sound Power & Light Company Puget Power Building Bellevue, Washington 98009 (206) 454-6363

BPA Power Marketing Program.

BPA has no authority to use, and should not attempt to use, its intertie access policy to protect or enhance its "power marketing program."

Bonneville is required by statute to "make available to all utilities on a fair and nondiscriminatory basis . . ." capacity which is available on the Bonneville transmission system. P.L. 93-454 (Federal Columbia River Transmission System Act) Section 6. Similarly, Section 6 of P.L. 88-552 (Regional Preference Act) requires that any excess capacity in the intertie "shall be made available as a carrier for transmission of other electric energy . . ." The legislative history of P.L. 88-552 clearly states that the Bonneville Administrator may not decline to enter into a wheeling agreement merely because he may have energy for sale to serve the same load. (H.R. Rep. No. 590, 88th Cong., 2d sess., reprinted in 1964 U.S. Code Cong. & Ad. News at 3350.) Transmission access cannot be refused based on the fact that the Administrator "may have energy for sale to serve the same load."

It is also poor policy to use BPA's intertie access policy to protect or enhance its power marketing program. Such use can lead to otherwise unnecessary duplication of transmission facilities. BPA itself has recognized that federal transmission facilities were constructed, on the basis of general Pacific Northwest utility consensus, in order to avoid costly facility duplication. BPA's attempting to restrict intertie access would be detrimental to those who have relied upon the cooperative planning and construction approach. This would be patently unfair and can only in the long run lead to otherwise unnecessary duplication of transmission facilities and misallocation of resources (and also deprive BPA of transmission revenues). These matters are discussed further in our letters to BPA dated March 15, 1985 and August 13, 1984, copies of which are attached hereto and incorporated herein.

The BPA Discussion Paper makes the following assertion at page 3:

> "In developing the Long-Term IAP, BPA must consider effects that Assured Delivery for capacity sales and exchanges may have on BPA revenues received from sales of surplus firm and nonfirm energy."

This assertion apparently reflects a direct and blatant disregard of the clearly-expressed legislative intent that BPA may not decline to enter into a wheeling agreement merely because it may have energy for sale to serve the same load.

Surplus; Exhibit B.

Firm access to BPA's intertie capability, if allowed at all, should not be limited to "average firm energy surplus level." There should be no priority intertie access for "Pacific Northwest firm energy surplus."

If BPA is going to allow firm contracts for intertie access, BPA should not determine a regional utility's right to a firm contract by some artificial calculation or procedure such as "Exhibit B". These matters are discussed in greater detail in our letter to BPA dated September 20, 1984, a copy of which is attached hereto and incorporated herein.

Section 9(i)(3).

Section 9(i)(3) of the Regional Act provides no authority to BPA to restrict transmission service to protect its ability to market power. Section 9(d) of the Regional Act clearly indicates:

(A) that section 9(i)(3) provides for services in addition to the transmission services provided by BPA under existing statutes such as the Transmission System Act or P.L. 88-552;

(B) that BPA's obligation to provide transmission services provided under existing statutes is qualified only by the "existing law" as of the adoption of the Regional Act (and is not qualified by Section 9(i)(3) or any other provision of the Regional Act);

(C) that the requirement in the Transmission System Act for fair and nondiscriminatory access to Federal transmission services is not repealed by the Regional Act; and

(D) that in any event utilities cannot be discriminated against in receiving BPA transmission services on the basis of independent development of resources.

These matters are discussed in greater detail in our letter to BPA dated February 20, 1986, a copy of which is attached hereto and incorporated herein.

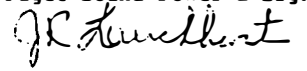
Resource Type; Restrictions on Export; Fish and Wildlife

Access to BPA intertie transmission service cannot and should not be qualified by (i) the type of resource or its apparent desirability; (ii) restrictions (such as "call-backs") unrelated to the transmission itself; or perceived fish and wildlife impacts of development or operation of generating resources. BPA has no authority to impose such qualifications on intertie access, and such qualification can only in the long run lead to otherwise unnecessary duplication of transmission facilities and misallocation of resources.

These matters are discussed in considerable length in our letters to BPA dated March 15, 1985 and August 13, 1984, copies of which are attached and incorporated herein.

Very truly yours,

Puget Sound Power & Light Company



By: Ronald G. Bailey
Vice President, Power Systems

cc:
C. E. Bissell	Idaho Power
D. B. Gregg	Montana Power Co.
R. M. Boucher	Pacific Power & Light
L. E. Hodel	Portland General Electric
D. H. Knight	Puget Power
G. M. Soule'	Sierra Paicfic Power
D. L. Bryner	Utah Power & Light
W. L. Bryan	Washington Water Power
M. S. Schultz	Intercompany Pool

bcc: R. V. Myers
R. G. Bailey
→ D. G. Kari
J. Lauckhart/W. Robinett/W. Gaines
File
Green

PUGET POWER

attachment
TIE-1-71

March 15, 1985

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Re: Bonneville Power Administration Proposed Revised Near Term Intertie Access Policy

Dear Ms. Geiger:

This is in response to your letter dated January 31, 1985, requesting comments on the above.

We have previously stated, and we reiterate here, our positions on the following issues:

(i) Bonneville has no authority to use its intertie access policy to protect its power marketing program or power operations;

(ii) Bonneville has no authority to deny intertie access based on its perception of fish and wildlife impacts of generating resources; and

(iii) Bonneville in selling power must comply with the statutory requirements of the Regional Preference Act.

Further discussion of these matters is contained in our letter dated August 13, 1984, a copy of which is attached hereto and incorporated herein by this reference.

In addition, the changes made to Exhibit B in the proposed Revised Near Term Intertie Access Policy do not allay our concern that the methodology used to determine Exhibit B values is flawed. The comments set forth in our letter dated September 20, 1984 are applicable to the revised Exhibit B. A copy of said letter is attached hereto and incorporated herein by this reference.

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Finally, we protest Bonneville having recently awarded itself capacity on the intertie for Guaranteed Non-Firm Energy, even though the amount awarded exceeded Bonneville's allocation under Condition 2. Bonneville's actions constitute a clear violation of its own rules governing intertie access as set forth in the Near Term Intertie Access Policy. The Policy distinguishes only between firm and non-firm energy, giving priority to the former pursuant to the Assured Delivery provisions of Section II.D.1. Access to intertie capacity for the distribution of all non-firm energy is determined by the Formula Allocation Methods set forth in Section II.D.2. The Formula Allocation Methods treat all non-firm energy alike and do not grant priority access for Bonneville's Guaranteed Non-Firm Energy. Bonneville has in awarding itself what amounts to Assured Delivery of its Guaranteed Non-Firm Energy arbitrarily and contrary to the terms of the Policy created a separate category of non-firm energy having priority over all other non-firm energy. Such arbitrary action undermines one of the fundamental purposes of the Policy, which is "to provide certainty with respect to firm and nonfirm transactions." Section I.A.

Bonneville's actions are not and cannot be justified by reference to its power marketing program. As noted by one federal court, "the establishment of written, objective, and ascertainable standards is an elementary and intrinsic part of due process." Baker-Chaput v. Cammett, 406 F.Supp. 1134, 1140 (D. N.H., 1976). Bonneville has failed to issue a "written, objective, and ascertainable" definition of its power marketing program. Bonneville may not consistent with due process standards justify impairment of Scheduling Utilities' rights of access to the intertie on the basis of such a program.

We appreciate the opportunity to comment on the proposed Revised Near Term Intertie Access Policy and look forward to providing further input on this matter.

Sincerely,

R. G. Bailey,
Vice President -
Power Systems

RGB:laf
Attachments

attachment
TIE-1-71

August 13, 1984

Mr. Peter T. Johnson, Administrator
Bonneville Power Administration
Post Office Box Box 3621
Portland, Oregon 97208

Re: Bonneville Power Administration Proposed Near Term Intertie Access Policy

Dear Mr. Johnson:

This is in response to your letter dated July 13, 1984, requesting comments on the above.

A. Bonneville Has No Authority to Use Its Intertie Access Policy to Protect Its Power Marketing Program or Power Operations.

Under the draft policy, access to the intertie will be provided only for power from existing Pacific Northwest resources that would not create substantial interference with the Administrator's "power marketing program" or "the operating limitations of the Federal system". Bonneville has no authority to deny or restrict intertie access in order to protect its power marketing program or power operations. Moreover, the draft intertie access policy appears to broadly define Bonneville's "power marketing program" to include sales of nonfirm energy, sales or exchanges for use outside the region and "policies adopted by the Administrator respecting various elements of the BPA's power marketing program". This definition and the definition of operating limitations are so broad that they lack meaning.

The Bonneville discussion preceding the draft Near Term Intertie Access Policy states at page 8 as follows:

> "The Regional Act clearly grants the Administrator broad authority to operate the Federal Intertie capacity in a manner that protects his power marketing program. . . ."

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This assertion, which BPA argues is authorized by section 9 of the Regional Act, is incorrect for several reasons.

First, the assertion is contrary to the language and intent of existing statutory language. Section 6 of P.L. 88-552 (Regional Preference Act) requires that any excess capacity in the intertie "shall be made available as a carrier for transmission of other electric energy. . . ." The legislative history of P.L. 88-552 clearly states that the Bonneville Administrator may not decline to enter into a wheeling agreement merely because he may have energy for sale to serve the same load. (Emphasis added. H.R. Rep. No. 590, 88th Cong., 2d Sess., reprinted in 1964 U.S. Code Cong. & Ad. News at 3350.) Thus, intertie access must be provided without regard to the Bonneville power marketing program, and intertie access cannot be refused based on the fact that the Administrator "may have energy for sale to serve the same load."

Second, the BPA assertion is contrary to the plain language and meaning of section 9 of the Regional Act itself. Section 9(i) relates to Bonneville's obligations upon request of its customers to acquire energy for such customers, to dispose of their energy or to assist them in the disposal of their energy (such as capability of WPPSS 4 and 5). Section 9(i) in its entirety relates only to services which Bonneville provides in connection with such requests. It does not apply to BPA transmission of a customer's energy, unrelated to requests for Bonneville's acquisition of energy for such customer or disposal or assistance in disposal of such customer's energy pursuant to section 9(i). This is supported by language in the legislative history of the Regional Act:

> "Section 9(i) sets forth additional services BPA is to provide its customers, at their request and expense, with respect to power sales and purchases of their own . . . ."

(H.R. Rep. 96-976, Part II (Interior), at 56.)

More importantly, section 9(d) of the Regional Act expressly states that the Administrator shall provide transmission for nonfederal power, subject only to the Administrator's contractual obligations, any other obligations under existing law and available Federal transmission capacity and

further expressly states that such services are in addition to the services to be provided pursuant to section 9(i)(3):

". . . In addition to the directives contained in subsections [9](i)(1)(B) and [9](i)(3) and subject to:

(1) any contractual obligations of the Administrator,

(2) any other obligations under existing law, and

(3) the availability of capacity in the Federal transmission system,

the Administrator shall provide transmission access, load factoring, storage and other services normally attendant thereto to such utilities and shall not discriminate against any utility or group thereof on the basis of independent development of such resource in providing such services."

(Emphasis added.)

Legislative history with respect to section 9(d) states as follows:

"Section 9(d) serves two purposes. First, it clarifies that utilities (unlike BPA) are free to dispose of their own non-Federal power (both firm and non-firm) so long as they do not thereby increase BPA's firm power obligations. Second, the subsection requires BPA to provide available services and facilities to such utilities for such sales, and prohibits BPA from discriminating in the provision of such services against any utility or group thereof on the basis of their independent development of resources. Both parts of this subsection therefore preserve the individual and collective independence of utilities and groups of utilities, as well as reaffirming the requirement contained in section 6 of the Federal Columbia River Transmission System Act that BPA make available on a fair and non-discriminatory basis Federal transmission system capacity in excess of the capacity required for power generated or acquired by the United States."

(H.R. Rep. 96-976, Part II (Interior), at 55.) Thus, section 9(d) clearly indicates: (A) that section 9(i)(3) provides for services in addition to the transmission services provided by BPA under existing statutes such as the Transmission System Act or P.L. 88-552, (B) that BPA's obligation to provide transmission services provided under existing statutes is qualified only by the "existing law" as of the adoption of the Regional Act (and is not qualified by section 9(i)(3) or any other provision of the Regional Act) and (C) that in any event utilities cannot be discriminated against in receiving BPA transmission services on the basis of independent development of resources. The Administrator's restriction or hindering of transmission services for nonfederal power "in a manner that protects his power marketing program" (e.g., to gain a competitive advantage in marketing federal power) is an obviously prohibited form of such discrimination.

In short, BPA has no authority to impose the conditions set forth in items C.2.a(1) and (2) of the draft policy, and those items should be deleted (together with related items C.3 and C.4).

It is also poor policy to include such items, which are related to Bonneville power operations and marketing programs and unrelated to the Administrator's contractual or statutory obligations regarding transmission services or transmission system capability. Imposition of conditions on transmission of nonfederal power related to BPA's power operations and marketing programs can lead to otherwise unnecessary duplication of transmission facilities. As recognized by BPA at page 11 of its discussion preceding the draft policy:

"Federal transmission facilities were constructed, on the basis of general Pacific Northwest utility consensus, in order to avoid the costly facility duplication which would result if all utilities in the region were to construct their own facilities."

If BPA were to now condition intertie access to prevent interference with its power marketing programs, the detrimental effects would be felt by those who have relied upon the cooperative planning and constructive approach. This would be patently unfair and can only in the long run lead to otherwise

unnecessary duplication of transmission facilities and misallocation of resources.

B. Bonneville Has No Authority to Deny Intertie Access Based on Its Perception of Fish and Wildlife Impacts of Generating Resources.

Bonneville's draft policy indicates in item C.2.c on page 17 that intertie access would be provided for power only for existing Pacific Northwest resources that would not

> "substantially decrease the effectiveness of or substantially increase the need for expenditures or other actions by the Administrator to protect, mitigate, or enhance fish and wildlife, or otherwise substantially interfere with the obligations of the Administrator to protect, mitigate, or enhance fish and wildlife as provided in subsection 6.b-e.

Similarly, item C.6.a of the draft policy states on page 20:

> "In the future, access to the Intertie will not be provided for power resources not licensed or constructed on the initial effective date of this policy, the construction, or operation of which would substantially decrease the effectiveness of or substantially increase the need for expenditures or other actions by the Administrator to protect, mitigate, or enhance fish and wildlife, or otherwise substantially interfere with the obligations of the Administrator to protect, mitigate, and enhance fish and wildlife."

Item C.2.c and item C.6 of the draft policy are not authorized by law and should be deleted.

Nothing in the applicable statutes authorize or require that intertie access be limited so as to force compliance with the Fish and Wildlife Program or to prevent impacts on Bonneville fish and wildlife expenditures.

Section 4(h)(11) of the Regional Act requires that the federal agencies responsible for managing, operating or regulating hydroelectric facilities on the Columbia or its

tributaries "exercise such responsibilities consistent with the purposes of this Act and other applicable laws" to protect fish and wildlife affected by such facilities. (Emphasis added.) Thus, this section is specifically limited by a requirement for compliance with other applicable laws. This is consistent with section 9 of the Regional Act, which as discussed above in some detail, clearly indicates that no authority to restrict BPA's obligations to provide transmission services under existing statutes was created by the Regional Act. Moreover, section 4(h)(11) of the Regional Act is limited to exercise of responsibilities to manage, operate or regulate hydroelectric facilities on the Columbia River or its tributaries. This simply does not apply to intertie access.

Section 4(h)(10) of the Regional Act relates to BPA authority to fund certain fish and wildlife activities (and does not relate to transmission service). For example, see H.R. Rep. No. 96-976, Part II, 96th Cong., 2d Session at 45. Moreover, section 4(h)(10), even if assumed for purposes of argument to apply to intertie access, requires by its very terms that BPA's actions thereunder be consistent with (among other items) the purposes of the Regional Act, which include the assurance of an adequate, efficient, economical, and reliable power supply for the region. Items II.C.2.c and II.C.6 fail to consider any such requirement for consistency with this purpose of the Regional Act (particularly in light of the fact that BPA restrictions on intertie access may well discourage the development of resources needed to meet regional loads.)

In short, the language in sections 4(h)(11) and 4(h)(10) relates only to hydroelectric projects on the Columbia or its tributaries and cannot be stretched beyond recognition to apply to intertie access, thereby amending specific statutory provisions relating to Bonneville transmission. This is particularly true in light of the clear langugage and intent of section 9(d), discussed above.

C. General.

At page 19 of the draft policy in item II.C.5.c, BPA lists certain acts applicable to BPA. The list should, of course, include P.L. 88-552 and the Transmission System Act as applicable to BPA, particularly inasmuch as this draft policy relates to intertie access.

BPA mentions at page 27 intertie access policy with respect to extra-regional utilities. However, there is inadequate information provided on this matter, and it appears premature to comment. Accordingly, we reserve the right to comment later in this matter.

Very truly yours,

Puget Sound Power & Light Company

By _____
R. G. Bailey
Vice President
Power Systems

RGB:ejj

September 20, 1984

Mr. E. W. Sienkiewicz
Power Manager
Bonneville Power Administration
Post Office Box 3621
Portland, Oregon 97208

Dear Ed:

By letter dated September 7, 1984, to Interested Parties, BPA transmitted its Near-Term Intertie Access Policy. The letter also requested that Northwest generating utilities review Exhibit B of the Policy and provide written comments to you. Puget's comments on Exhibit B are as follows:

1. The methodology used to determine Exhibit B values appears to be flawed for several reasons. We understand that BPA essentially used resource data for each utility for the 1984-85 operating year from the 1984 NRF published by the PNUCC. BPA then compared those resources to loads for each utility that was forecast by BPA rather than the load included in the NRF. Exhibit B is the resultant surplus, if any. In addition to our obvious concerns regarding BPA's forecasting loads and determining what other utilities may or may not do based on that forecast, we are concerned about the inference from this methodology that utilities can use any firm energy they acquire to make firm sales outside the region. This is not true in many instances. For example, utilities cannot make "requirements" purchases from BPA for resale. The key point here is that Full Requirements Purchasers of BPA power cannot, by definition, have a firm surplus unless the purchaser has added resources after the date of the Regional Power Act (5(B)(1)(b) resources) which are not claimed in the Power Sales Contract. In any event, such instances must also comply with PL88-552. Also, many PUD's have withdrawal rights to power sold to other utilities from the PUD's projects. Often the power withdrawn is limited contractually from being sold out of the region. NRF forecasts also may not reflect current resource situations and certainly do not reflect firm surpluses for 1984-85 operating year pursuant to the Coordination Agreement.

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2. The methodology used by BPA to develop Exhibit B does not take into account peak surplus that a utility might desire to sell outside the region. As BPA is well aware, much of the desire for firm purchases by Southwest utilities is for peak.

If BPA is going to allow firm contracts on the PNW/PSW Intertie which have priority over allocations of intertie capacity, BPA should not determine a utility's right to attain such firm contract by some artificial calculation or procedure. Each utility should make its own determinations of its loads and resources, its contractual constraints, and the risks it will take in offering firm sales to the Southwest. BPA's decision as to whether firm transmission rights may be purchased should hinge solely on the firmness of the bilateral contract. Such comments were offered by Merrill Schultz to BPA in a letter dated August 10, 1984, and we re-affirm the appropriateness of those comments.

Sincerely,

R. G. Bailey
Vice President
Power Systems

JRL:RGB:fo

cc: C. E. Bissell - Idaho Power Co.
D. B. Gregg Montana Power Co.
R. W. Moench Pacific Power & Light
G. E. Bredemeier PGE
G. M. Soule' Sierra Pacific
D. L. Bryner Utah Power & Light
W. L. Bryan Washington Water Power

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL
BOISE 83720

JIM JONES
ATTORNEY GENERAL

TELEPHONE
(208) 334-2400

January 15, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

I. Introduction

The Office of the Attorney General of Idaho hereby provides its comments on the Bonneville Power Administration's Draft Environmental Impact Statement on Intertie Development and Use (DEIS), which includes the BPA's Proposed Long-Term Intertie Access Policy (LTIAP).

Based on our review, we conclude the intertie proposals considered in the DEIS, namely increased intertie capacity, access for long-term firm contracts, and other access policies, pose an unacceptable risk to the maintenance and enhancement of the region's salmon and steelhead. Moreover, the environmental analysis presented is so fundamentally flawed as to deprive the public and agency policy makers of the information necessary to make a reasoned choice among alternatives. Therefore, we recommend that BPA take no action until a revised draft environmental impact statement is prepared and circulated for public review and until necessary mitigation measures are in place. Though we support out-of-region sales of surplus energy on terms that benefit the region's ratepayers, these sales must take into account fish and wildlife concerns on a par with power generation objectives.

Salmon and steelhead runs in the Columbia Basin suffer enormous losses due to the operation of hydroelectric dams. Low system survival has pushed certain stocks, particularly upriver wild and natural chinook and steelhead, precariously close to the brink of extinction. Communities that are economically dependent on salmon and steelhead oriented recreation have endured prolonged closures of once-thriving fisheries. An entire region has been threatened with the loss of part of its natural heritage.

The Pacific Northwest is now struggling to restore balance between power production and the needs of the anadromous fish resource. At present, there is no program that can adequately enhance salmon and steelhead runs in the face of the increasing demand for hydroelectric production that will stem directly from the intertie proposals being considered. Until such a program is in place, salmon and steelhead will be very dependent upon existing conditions that facilitate survival, particularly unplanned spill and flow. It is precisely these conditions that Bonneville proposes to get rid of through its intertie proposals. These proposals will expand the market for the region's power and structure how that market operates. These changes will alter the balance between fish and power in favor of power and make equitable treatment of these competing resources more difficult to achieve.

The Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act) imposes an obligation on the Administrator to provide "equitable treatment" for the fish and wildlife of the Columbia Basin. 16 U.S.C. § 839b(11)(A). This means that power and fish concerns must be given equal weight. "It is clearly intended that no longer will fish and wildlife be given a secondary status by the Bonneville Power Administration (BPA) or other Federal Agencies." 126 Cong. Rec. 29808 (Nov. 17, 1980) (comments of Rep. Dingell).

This standard has both procedural and substantive dimensions. Procedurally, it requires that Bonneville scrutinize the environmental impacts of its proposals in terms of how these impacts affect the overall goal of rebuilding the basin's anadromous fish runs. Equitable treatment requires full and accurate disclosure not just of the incremental impacts of a particular action but of how these impacts affect the region's overall ability to meet fish and wildlife objectives.

In this legal context, Bonneville's approach to analyzing the consequences of the intertie as departures from the status quo is conceptually flawed because it loses sight of the statutorily-mandated principle that the status quo is not acceptable. Continuation of the present situation really means continuing decline of important stocks. Three changes are necessary to cure this conceptual flaw: discussion of the cumulative effects of hydropower system operations, analysis of the institutional effects of contemplated actions, and measures to mitigate for these effects.

Many of our reservations about the DEIS' analysis have been brought to Bonneville's attention already by a variety of parties. Therefore, where relevant, these comments cite prior communications that raise issues discussed here.

II. Cumulative Effects

Seen in isolation, the intertie impacts can be portrayed as relatively minor. But, the intertie must be seen as a part of a larger whole, the operation of the regional hydropower system and intertie network. Analysis of cumulative impacts is needed to give the public and agency policy makers a better understanding of the context for the DEIS, the true environmental cost of the proposals and what mitigation measures are necessary.

Analysis of cumulative effects will reveal that the hydropower system has a devastating impact on upriver runs.

> Project-related mortalities may result in ten to twenty percent losses of downstream migrants at each dam. Reservoir and flow related mortalities may range from three to forty percent per project, depending on run-off conditions. Assuming a combined project and reservoir related mortality of twenty percent per dam, only seventeen percent of an initial population of in-river migrating fish passing eight hydroelectric dams will survive after passing Bonneville Dam.

Lothrop, The Misplaced Role of Cost-Benefit Analysis in Columbia Basin Fishery Mitigation, 16 Env'tl. L. 517, 531 (1986). Idaho

salmon and steelhead stocks must pass eight dams on their trip to the sea. The task of rebuilding Idaho stocks is made vastly more difficult by a dam-induced mortality rate of over 80% on downstream migrants. What appear to be small variations in survival due to intertie operations become important when only 17% of Idaho juvenile migrants survive under current conditions.

Given this situation, NEPA requires disclosure of cumulative effects. 40 C.F.R. § 1508.25(c). Cumulative effects are "the impact on the environment which results from the incremental impact of an action when added to other past, present and foreseeable future actions regardless of what agency or person undertakes such actions." 40 C.F.R. § 1508.7. See also Oregon Natural Resources Council v. Marsh, 628 F.Supp. 1557, 1563 (D.Or. 1986) ("[T]he valuable tool in assessing the environmental consequences of Elk Creek Dam is an analysis of the cumulative impact of this dam when added to the existing components of the [basin-wide] project.") Bonneville is also required to examine cumulative impacts by section 1204(b)(1) of the Columbia Basin Fish and Wildlife Program. That section provides that federal operators and regulators shall review proposals for hydroelectric development and "shall assess cumulative environmental effects of existing and proposed hydroelectric development on fish and wildlife."

A discussion of cumulative effects would examine the intertie proposals in light of current conditions. For example, Idaho's spring chinook fishery in 1985, the first such fishery since 1978, was limited to a four-mile stretch of river immediately downstream from a hatchery. The effect of current operations should be analyzed and presented under various water year scenarios. Interactions between effects from current operations and proposed intertie operations should be disclosed. For instance, will high mortality from existing operations tend to coincide with high mortality from proposed intertie operations under varying assumptions of future conditions? A cumulative effects analysis would reveal that current impacts are unacceptable given legal mandates and biological needs, and, hence, that any further deterioration is also unacceptable.

Cumulative effects also mean that Bonneville should abandon its definition of thresholds of significance. See DEIS at 4.5-10 (one day delay in travel time deemed insignificant) and 4.5-17.

Bonneville proposes to treat impacts below certain thresholds as essentially insignificant. Cumulative effects render every incremental increase in mortality significant.

The DEIS' discussion of fish travel time best illustrates this point. The DEIS concludes that a delay of one day in fish migration time is insignificant when compared with the thirty day period considered biologically acceptable for travel from Snake River rearing areas to saltwater. 4.5-10. This conclusion should be seen in the context of information provided by the Smolt Monitoring Program that spring chinook entering above Wells Dam took an average of 26 days to reach McNary Dam in 1984 and 38 days in 1985. See Letter from Dale Evans, Chief, Environmental and Technical Services Division, National Marine Fisheries Service, to Timothy Murray, Chief, Environmental Analysis Branch. (January 24, 1986). In the Snake River system, a journey from Lower Granite Dam to saltwater which took a week to ten days prior to dam construction now can take forty or more days, even in moderate flow years. Lothrop, Fishery Mitigation, 16 Envt'l. L. at 529. Thus, the conclusion that an additional delay of one day is insignificant is misleading and inappropriate because the evidence demonstrates that existing travel time is well in excess of what is biologically acceptable.

III. Institutional Impacts

The intertie proposals will make it more difficult to achieve regional goals for anadromous fish. NEPA requires disclosure and analysis of:

> Possible conflict between the proposed action and the objectives of Federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the areas concerned.

40 C.F.R. § 1502.16(C). Nevertheless, the DEIS omits any meaningful discussion of how the intertie proposals will affect the future development of the Columbia Basin Fish and Wildlife Program and attainment of the Program's proposed interim goal of doubling run sizes. Analysis of three types of institutional impacts are necessary: impacts on the ability to supply levels of spill and flow greater than currently called for in the program,

impacts on the ability to provide fish protection with system flexibility, and implications for decision making strategy for basin production planning.

The region's fisheries agencies and tribes consider present levels of water budget flows and spill to be inadequate for fish protection. Therefore, it has been suggested that Bonneville conduct studies incorporating larger water budget flows and spills greater than provided in the 1985 spill plan. Letter from Dale Evans, NMFS, to Timothy Murray, BPA (August 8, 1986). Studies incorporating additional flows and spills would indicate whether intertie-related proposals reduce the ability of the Northwest Power Planning Council to adopt needed changes in the Fish and Wildlife Program. Such changes might be limited by the cost of power generation foregone or by conflicts with the provision of power under long-term firm contracts. In particular, Bonneville should model existing proposals for a sliding scale water budget scheme in the Mid-Columbia and the Idaho Department of Fish and Game's proposed minimum/optimum flow water budget scheme for the Snake River. The proposed sliding scale for spills between the 90 percent survival standard and a 70/50 yearling/subyearling fish passage efficiency standard should also be examined. The LTIAP and capacity upgrades may make increased flows under the present water budget system more difficult to obtain. These studies would indicate the effectiveness of increased flows and spills as mitigation measures for intertie operations.

The Fish and Wildlife Program depends in part on the ability of dam operators and regulators to provide fish protection "within system flexibility." For instance, the Council recently cited, as a reason to reject agency and tribal spill recommendations, the fact that "The Corps has assured the Council that in above average water years, spill will occur in addition to that called for by the program's 90 percent survival standard." Draft Amendment Document, Part 2: Proposed Rejection Language 403, 404(b)/CBFWC and 1504/CBFWC, pp.167-68. Bonneville should examine how intertie proposals will affect the millage rate of such additional spills and whether such spills can be provided without affecting firm power sales contracts. Such an examination may reveal whether it is useful to replace protection within system flexibility with hard constraints on hydrosystem operations. These issues were brought to Bonneville's attention by Dale Evans' letter to Timothy Murray of August 8, 1986.

A final institutional impact to be examined involves how intertie actions affect the choice of goals and alternatives for anadromous fish enhancement within the Columbia Basin. The Council is currently engaged in the process of selecting among various possible production strategies, such as whether to focus on rebuilding upriver stocks and whether to emphasize hatchery production. A crucial aspect of this analysis involves assessing the impact of hydrosystem mortality on the feasibility of various options. For instance, increased hydrosystem mortality disproportionately affects upriver wild and natural stocks, which must pass over more dams and whose losses cannot be simply offset by increased hatchery production. Although it would not be proper for the DEIS to reach conclusions about which production alternative should be chosen, the DEIS should interpret the data on cumulative and incremental effects in terms of their impact on the Council's production planning decisions. For instance, will the intertie proposals make alternatives stressing enhancement of upriver wild stocks more difficult to implement and frustrate the goal of doubling run sizes? This type of analysis will assist the region in determining whether the intertie proposals are consistent with the program and with the mandates of the Northwest Power Act.

IV. The Adequacy of Environmental Analysis of Impacts on Salmon and Steelhead, Section 4.5.

The DEIS' analysis of impacts on salmon and steelhead suffers from a number of fatal defects. Most of these relate to the use of the FISHPASS computer model to quantify impacts on salmon and steelhead in purportedly numerically precise terms. Bonneville has failed to disclose and incorporate the great uncertainty of its approach to quantifying fisheries impacts. Moreover, Bonneville has adopted convenient assumptions that mask likely effects. Those effects that are found are obscured by a confusing format for presentation and false premises regarding significance. Together, these defects render the DEIS insufficient under applicable law.

A. FISHPASS and Uncertainty

Uncertainty regarding the actual impacts of the intertie pervade the DEIS' analysis of fisheries impacts. To a certain extent, uncertainty necessarily accompanies any attempt to use

present techniques to forecast the complex relationship between hydroelectric production and fish survival under future conditions. However, the DEIS does not do what NEPA requires: to disclose the extent of uncertainty and to adjust analyses to take this uncertainty into account.

Much of the uncertainty focuses on the use of the FISHPASS computer model to generate numerically precise quantifications of impact. This use of FISHPASS is not appropriate given the variability of FISHPASS results and the unreliability of input parameters used. Computer-generated data is only as reliable as the model and input assumptions used. In the case of the DEIS, FISHPASS runs are unreliable due to limitations in both the model and input parameters.

FISHPASS uses a number of parameters which at present have limited support in available data. Variation in these assumed parameters results in great disparities in output. According to Bolyvong Tanovan, Water Quality Specialist for the Corps of Engineers and inventor of the FISHPASS model:

> While [FISHPASS] incorporates elements that are believed to be fairly representative of the fish migration process, many of its inputs are presently known only within variable ranges of values; and there is no easy way of directly determining the accuracy of its output. For practical purposes, it is essential to provide some kind of probabilistic sensitivity analysis, including simple variances and summary statistics based on these variances.

Bolyvong Tanovan, "Memorandum for the Records; Subject: Probabilistic Appendage to FISHPASS Model." August 25, 1986, p.1, attached to Exhibit B, Minutes of the Mainstem Passage Advisory Committee (December 9, 1986) (emphasis added). A report of a subcommittee of the Council's Mainstem Passage Advisory Committee (MPAC) reaches a similar conclusion:

> Ecological models, which can be used to simulate biological systems, can provide useful information on the response of the environment to various factors. ... This process [of smolt outmigration in the Columbia River ecosystem] is dependent on several interactive factors which are poorly understood or highly variable. The FISHPASS model contains many assumptions about these factors and their interactions that can greatly affect the model output.
>
> * * *
>
> The level of precision of the input parameters, or various interactions, determines the emphasis placed on the numerical value associated with the output. If the precision and interaction of individual parameters are not sufficiently documented, then model output could be used to provide insight into the general trends in the whole system rather than to supply detailed information of each component of the system. The results may also provide an indication as to where more investigations or other actions may be required.

Subcommittee of MPAC, "FISHPASS Sensitivity" attached as Exhibit C to Minutes of the Mainstem Passage Advisory Committee (MPAC), December 9, 1986, p.1 (emphasis added). The MPAC Minutes with appended reports are attached hereto and incorporated herein by reference. Thus, according to Mr. Tanovan and MPAC, the FISHPASS model remains incapable of generating precise output on hydrosystem impacts due in part to the unreliability of input parameters. These input parameters remain highly uncertain because of the lack of adequate data to support particular values.

MPAC and Mr. Tanovan have different approaches in responding to this uncertainty, neither of which is consistent with Bonneville's use of FISHPASS. Mr. Tanovan suggests using "some kind of probabilitstic sensitivity analysis, including simple variances and summary statistics based on these variances." The DEIS does not present any type of sensitivity analysis and does not display system survival results based on "simple variances" in input parameters. MPAC's working subcommittee on FISHPASS

sensitivity thinks that Mr. Tanovan's approach "would assign the model variables a level of precision which is not justified." FISHPASS Sensitivity at p.14. The subcommittee's approach would limit FISHPASS use to determining statistical correlations between affected stocks and intertie actions, not to actually quantifying these impacts.

The DEIS' use of the model does not comport with the model's limitations, as explained by Mr. Tanovan and the MPAC report. Perhaps these limitations would have been clearer if Bonneville had awaited the completion of MPAC's study of FISHPASS sensitivity prior to releasing the DEIS. In the DEIS, input parameters are assigned a single, discrete value. Results are tabulated with apparent certainty assigned to single numbers, as opposed to a range of system survival results. FISHPASS is used to determine whether certain defined thresholds have been exceeded as opposed to whether there is a statistical correlation between intertie proposals and increased mortality. This use of FISHPASS exceeds the model's capabilities at this time.

NEPA does not allow an agency to ignore or fail to disclose the limitations of its analytical tools. 40 C.F.R. § 1502.22 provides:

> When an agency is evaluating significant adverse affects on the human environment in an environmental impact statement and there are gaps in relevant information or scientific uncertainty, the agency shall <u>always</u> make clear that such information is lacking or that uncertainty exists.

(emphasis added). Nowhere does the DEIS disclose that there is considerable uncertainty regarding the accuracy of the environmental analysis of effects on salmon and steelhead or take into account how this uncertainty affects how the FISHPASS model may be used.

A computer model's sensitivity to unvalidated input parameters may make its use arbitrary and capricious. The Sixth Circuit recently reviewed the EPA's use of a sophisticated model to predict air pollution concentrations and dispersal patterns in the vicinity of Lake Erie and stated:

> No matter how sophisticated and involved the methods employed by EPA in reaching its decisions, in order to uphold those decisions under the Clean Air Act we must be able to see that the agency's actions were not arbitrary. In the absence of a record supporting the trustwothiness of agency decision-making tools as they were applied, we cannot uphold those tools' application. EPA has failed to provide such a record.

<u>State of Ohio v. United States EPA</u>, 784 F2d 224, 230-31 (6th Cir. 1986). The court concluded that the EPA "acted arbitrarily in using the CRSTER model to set emissions limits without adequately validating, monitoring or testing its reliability or its trustworthiness in forecasting pollution in the vicinity of these plants...." Id. at 226.

The DEIS does not disclose what results might be obtained from the use of broader range of likely input parameters, what the limitations of FISHPASS are, and the results of any sensitivity analyses are. Such disclosure is required by 40 C.F.R. § 1502.22 and is essential for a reasonable understanding of the proposals' impacts. The preliminary sensitivity analysis recently completed by MPAC indicates a high degree of imprecision in FISHPASS output due in particular to the highly variable nature of the point estimates used for input parameters. For instance, fieid studies of turbine mortality, a parameter to which FISHPASS is highly sensitive, define a wide range of probable values (e.g., 7% to 32%). There is less measured data for other parameters to which the model is sensitive, such as spill efficiency and reservoir mortality. <u>See</u> Letter from S. Timothy Wapato, Executive Director, Columbia River Intertribal Fish Commission, to Honorable Robert Duncan, Chairman, Northwest Power Planning Council, December 15, 1986, at p.15.

After disclosing the extent of FISHPASS sensitivity to unvalidated input parameters, Bonneville must modify its analyses so as to take this uncertainty into account. Four changes to the DEIS are necessary: preparing a full sensitivity analysis of FISHPASS, presenting a range of impacts reflecting a range of input parameters and assumptions, conducting a worst case

analysis, and developing alternate methods of simulating hydrosystem impacts.

No complete sensitivity analysis of FISHPASS has ever been completed. Such an analysis would address all the logical combinations of the high and low values of at least twelve parameters and would require 4,096 computer runs. See Tanovan Memorandum at p.1. This type of complete sensitivity analysis was suggested to Bonneville in August, 1986. Such an analysis would also study the interactions between certain key variables. A more comprehensive study would evaluate changes in reservoir mortality by varying the shape of the reservoir survival curve rather than simply shifting the curve. See "FISHPASS Sensitivity" at pp. 11 & 14.

In the absence of better data to support input parameters and assumptions, it would be preferable to report a range of survival results. Bonneville, in consultation with the region's fisheries agencies and tribes, should establish credible high, medium and low values for system survival results, taking into account the information gained from a complete sensitivity analysis. Results representing a range of the most likely outcomes of the intertie proposals could then be presented. See Letter from Edward Sheets, Executive Director, Northwest Power Planning Council, to Timothy Murray, BPA, August 8, 1986.

In addition to presenting a range of survival results, Bonneville should conduct a worst case analysis in accordance with 40 C.F.R. § 1502.22(b). That regulation requires a worst case analysis whenever incomplete or unavailable information concerns matters that are essential to a reasoned choice between alternatives and the information cannot be obtained without exorbitant expense. In this situation, a number of sources of scientific uncertainty give rise to the need for a worst case analysis; these include FISHPASS sensitivity of variable input parameters, difficulty predicting how the regional energy system will respond to the intertie proposals, uncertainty regarding the level of future fish protection, and variable flow conditions in different water years. See e.g., DEIS at p.4.2-21, ¶4, noting sources of uncertainty in SAM modeling. Thus, for instance, a worst case analysis could address impacts assuming a high percentage of intertie sales composed of hydroelectric power, failure to install adequate bypass on schedule, unfavorable

assumptions and unfavorable input parameters. Understanding the potential for harm under a pessimistic set of assumptions is critical to informed decision making given the uncertainty of future conditions and the unreliability of the tools used to forecast these conditions.

Finally, Bonneville should develop an alternate method for examining impacts on salmon and steelhead to be used in conjunction with FISHPASS. The need for an alternate approach arises from the uncertainties discussed above and the shortcomings of the FISHPASS model itself. Key among these shortcomings is the fact that FISHPASS is incapable of showing impacts below Bonneville Dam due to conditions above the dam and of showing effects on subsequent year classes. Two alternate methods could be examined for suitability: a life-cycle dependent model and a simple one-dam simulation model. A life-cycle dependent or "gravel-to-gravel" model has the advantage of being capable of displaying the results of hydrosystem impacts on the offspring of the generation experiencing the adverse effects. A simple one-dam simulation would remove much of the potential for error that results from FISHPASS' complexity and the interactions of its many variables. Such a model could lessen uncertainties caused by the level of transportation assumption and the reservoir mortality input parameter. For instance, a focus on effects at Lower Monumental Dam might provide insights on how the system as a whole responds to spill and flow effects and may provide some information to start verifying the accuracy of FISHPASS.

B. The Transportation Assumption

The DEIS employs a number of questionable assumptions in its environmental analysis. The assumption of maximum transport at Lower Granite and Little Goose dams has such a major impact on the outcome of the analysis that it merits detailed treatment. By assuming that all fish that can be collected are transported in the Snake River system and at McNary Dam, Bonneville has declined to disclose likely impacts on all stocks that spawn in Idaho. This assumption serves to mask true impacts and amounts to illegitimate shadow policy making on the transportation issue.

The assumption of maximum transport is unrealistic. The Northwest Power Planning Council recently rejected a proposal by the Corps of Engineers to commence "full transportation" in all

water years at all collector dams. Transportation policy has been the subject of fairly heated debate in recent years. It is generally acknowledged that the benefits and dangers of transportation, particularly for chinook, are not fully understood at this time. The hard data necessary to make a final determination of the efficacy of transportation will not be available for a number of years. In the interim, the region's fisheries agencies and tribes have given transportation a more limited role than that advocated by the Corps and modeled by Bonneville in the DEIS.

Current policies on smolt transportation are formulated by the Fish Transportation Oversight Team (FTOT), which is made up of representatives of the fisheries agencies and tribes. The FTOT guidelines currently in effect preclude the type of transportation that Bonneville has modeled to predict fisheries impacts. Present transportation guidelines call for in-river passage of the first 80 percent of the spring chinook migration in the Snake River when flows are over 100 Kcfs and at McNary Dam when flows exceed 220 Kcfs. See Letter from Evans, NMFS, to Murray, BPA, supra, at no. 6. This policy is far different from the transportation program modeled in the DEIS. The Fish and Wildlife Program and the jurisdictional limitations on federal management of fish in the Columbia River system preclude Bonneville from ignoring FTOT guidelines in preparing its environmental analyses.

The DEIS' maximum transportation assumption results in understated fisheries impacts. This point was explained to Bonneville last fall in a letter from the Northwest Power Planning Council regarding the DC upgrade:

> Fish transportation operations and assumptions also are vital to survival results, since transportation effectively 'removes' fish from additional mortality factors in the model, resulting in higher survival rates. By assuming maximum transportation of all stocks at the three collector dams and high collection rates, virtually all downstream migrating fish are collected and not subjected to subsequent downstream mortality factors. Since FISHPASS assumes only a five percent mortality for transported fish, the overall

> survival of upstream stocks tends to be static even with differences in dam survival rates.

Letter from Sheets, Council, to Murray, BPA, supra, at p.3.

This effect of understating impacts through transportation assumptions explains some of the apparently anomalous results presented in the DEIS. Tables showing effects on downstream migrants display significant impacts to Lower Monumental stocks for certain alternatives and yet show no measurable impact on Lower Granite stocks. See e.g., Table 4.5.12, p.4.5-19. Given that Lower Granite stocks enter the river two dams above Lower Monumental stocks, one must assume that the only reason that the analysis does not show more severe harm to Lower Granite stocks than to Lower Monumental stocks is the transportation assumption.

Bonneville should eliminate the maximum transportation assumption and present survival results using two more realistic assumptions. First, system survival assuming no transportation should be presented. This assumption will allow readers to understand the impacts on fish that are left in the river and that experience the full effect of the hydrosystem operations. It will also disclose the extent to which increased system mortality will tend to make increased transportation appear to be a more attractive option. Second, system survival assuming transportation in accordance with FTOT regulations should be presented. In conducting FISHPASS sensitivity analyses, MPAC chose these two transportation assumptions rather than the maximum transportation assumption. Given that the Fish and Wildlife Program currently prohibits the transportation assumption modeled in the DEIS, to retain this assumption in the final EIS would be inconsistent with the Northwest Power Act's requirement that Bonneville take the program into account at each relevant stage of decision making.

C. Stock Status Trends and Significance of Effects

We disagree with the approach of justifying impacts based on improving stock status trends. DEIS at p.4.5-27. Although the weakness of affected stocks may be an indication of the significance of harm, the recent improvement of certain affected stocks does not mean that impacts are insignificant. In addition, the recent trend of increasing upriver spring chinook stocks is

predicted by the agencies and tribes to be reversed in 1987. To find impacts to even improving stocks acceptable is not consistent with the Fish and Wildlife Program's mandate to rebuild anadromous fish runs. As long as production goals are not met and fisheries are curtailed, further dam-induced mortality is not justifiable.

V. MITIGATION

Mitigation measures deserve greatly expanded attention. The DEIS reveals significant harm to a number of stocks; recommended changes in the environmental analysis will undoubtedly reveal that many more stocks also significantly affected. Given the degree of harm to an important resource, Bonneville has a duty to mitigate impacts to the maximum extent feasible. Yet, the DEIS proposes no mitigation measures and discusses mitigation only in the most cursory terms. See p.4.5-28.

The duty to analyze mitigation arises from at least two sources: NEPA and the Northwest Power Act. The CEQ's NEPA regulations require discussion of "means to mitigate adverse environmental impacts...." 40 C.F.R. § 1502.16(h). See also 40 C.F.R. § 1502.14(f) (section on alternatives including the proposed alternative shall include "appropriate mitigation measures"). Moreover, the record of decision on matters covered in an EIS shall "State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not." 40 C.F.R. § 1505.2(c). The DEIS does not supply the Administrator with enough information to make an adequate determination in the record of decision that all practicable mitigation measures have been considered.

The Ninth Circuit recently struck down an EIS for failure to adequately disclose and discuss mitigation measures. The court concluded:

> The Chimney Rock and Blue Creek EISs discuss mitigation measures in part but neither EIS analyzes the mitigation measures in detail or explains how effective the measures would be. A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA. See Adler v. Lewis, 675 F.2d at 1096. The district court's conclusion that the EISs are inadequate for this reason is sound.

Northwest Indian Cemetery Protective Assn. v. Peterson, 764 F.2d 581, 588 (9th Cir. 1985). Therefore, the DEIS's simple, sixteen line description of possible mitigation measures does not comply with NEPA.

The Northwest Power Act adds an additional duty to mitigate impacts on salmon and steelhead. In enacting the equitable treatment standard, Congress contemplated that fish and power concerns would be treated co-equally. This means that a major initiative with major fish and wildlife impacts should not go forward unless there has been an effort to mitigate for those impacts. The Federal Energy Regulatory Commission has interpreted the equitable treatment standard to include a duty to mitigate the impacts of the Mid-Columbia PUD projects. See Public Utility District No. 1 of Chelan County, Washington, 34 FERC ¶63,044, p.65, 168 (1986) ("Whether mitigation is practicable is a matter to be addressed in determining 'equitable treatment'"). The equitable treatment standard applies to actions not specifically constrained by the Columbia Basin Fish and Wildlife Program. Furthermore, section 1304(a)(3) of the program requires that intertie arrangements be consistent with the program. See DAD rejection language for 1504(42.3)/CBFWC. This means that intertie proposals should include mitigation measures that minimize the proposals' impact on the ability of the Council to attain program goals.

The range of mitigation measures listed is inadequate. Installation of turbine screening and juvenile bypass system should not be relied upon to satisfy the duty to mitigate. The analyses that show significant impacts assumed that screening and bypass systems were already in place. Therefore, installation of these systems cannot constitute mitigation for predicted impacts. Additional mitigation measures that should be examined include increased levels of spill and flow protection. Only increased mainstem passage protection measures are capable of adequately mitigating for the adverse spill and flow effects of the intertie on wild and natural stocks, particularly stocks which do not respond well to transportation such as chinook. Mitigation measures tailored to the needs of wild and natural stocks are

necessary in order to maintain consistency with the Fish and Wildlife Program's provisions emphasizing the importance of these stocks. This precludes overreliance on hatchery production to compensate for losses. See Chelan PUD, 34 FERC at 65, 173 ("Chelan has a responsibility to minimize impacts to wild stocks to the maximum extent possible"). A revised discussion of mitigation should describe the level of mitigation necessary to offset adverse effects, where and when mitigation will be undertaken, who will implement the measures, and what source of funding will be used.

A final aspect of the mitigation issue arises from the requirement that in implementing a decision requiring mitigation measures the agency shall include appropriate conditions and monitor compliance with and the effectiveness of the mitigation measures selected. As applied to the fish and wildlife conditions included in the LTIAP, this requirement means that Bonneville should discuss the enforcement program for these conditions. Bonneville should make a commitment of sufficient monetary and staff resources to conduct investigations of compliance with the fishery conditions as requested by the fisheries agencies and tribes. In addition, Bonneville should conduct random or periodic investigations of compliance in order to verify the effectiveness of the conditions. The enforcement situation under the Near-Term Intertie Access Policy in untenable. The fisheries agencies and tribes have the burden under the NTIAP not only to generate the initial information required to make a complaint but also to rebut a presumption of compliance by the scheduling utilities. The equitable treatment standard requires that mitigation measures undertaken be capable of being effectively enforced. Cf. The Steamboaters v. FERC, 759 F.2d 1382, 1394 (9th Cir. 1985) (effectiveness of mitigation measures depends upon how they are applied and enforced).

VI. SPECIFIC COMMENTS ON DEIS

Chapter 2. The DEIS does not clearly state which of the decision packages has been proposed for adoption in the LTIAP. The preferred alternative should be clearly set forth.

As discussed above, the DEIS reveals a need for mitigation. This chapter should discuss and evaluate the effectiveness of a range of potential mitigation measures.

2.1.4., p.2-3 - The Benefit/cost ratio should be altered to reflect the cost of necessary mitigation measures and lost fisheries benefits.

2.2.3.4, p.27 - The DEIS should discuss the environmental impact of the estimated 227a MW of additional new hydro capacity caused by maximum intertie expansion. The DEIS should incorporate small hydro incentives under PURPA into its estimates of how much new hydro capacity will be developed. Given these incentives, new hydro development does not necessarily respond solely to a least cost mix model.

Chapter 3 - A discussion of the impacts of small hydro development should be included in this section, including cumulative impacts from small hydro development.

Section 4.5 - It is difficult to determine whether tables showing effects of access provisions under different capacity assumptions represent the combined effects of the given capacity levels and access provisions. For instance, does Table 4.5.16 display the effect of the DC upgrade assuming access for long-term firm contracts? If this information is not now provided, please include in any subsequent statement tables showing departures from the existing situation caused by capacity upgrades under different access provisions, such as the effect of maximum capacity and long-term firm contracts.

This section should be expanded to include anadromous fish impacts outside of the Columbia Basin, since intertie-related impacts are not felt exclusively within the Basin.

4.5.2.4 - Hourly modeling analysis should be improved and extended to include long-term firm contracts under different upgrade scenarios.

App. C. - An 80% survival rate should be assigned to transported spring chinook based on available data comparing the adult return rates of transported and nontransported fish. See Letter from S. Timothy Wapato, Executive Director, Columbia River Intertribal Fish commission, and John R. Donaldson, Chairman, Columbia Basin Fish and Wildlife Commission, to Robert Saxvik, Chairman, Northwest Power Planning Council (Jan. 24, 1986); "Incorporation of Transportation in Analysis of Fish Passage

Alternatives" by Chip McConnaha and Jim Ruff, NPPC, Dec. 4, 1986 (system survival calculations should take transportation adjustment factor into account).

VII. LONG-TERM INTERTIE ACCESS POLICY

The LTIAP represents an improvement in some respects over the Near-Term Intertie Access Policy (NTIAP). Nevertheless, serious problems remain. Chief among these problems is the enforceability of the fish and wildlife standards that have been adopted. The difficulty in testing and enforcing the LTIAP is illustrated by the experience of the National Marine Fisheries Service (NMFS) in getting a response from Bonneville on its test case and formal complaints regarding compliance with the NTIAP. See Letter from Roland Schmitten, Regional Director, NMFS, to Peter Johnson, Administrator, BPA, April 17, 1986 (submitting formal complaints under the NTIAP). It is our understanding that no formal response to these complaints was ever submitted from Bonneville and that an informal response took months to be released. This experience demonstrates the need for improvement in the enforceability of the intertie access policy.

In addition to establishing the capability to investigate compliance with the policy, Bonneville should require a certification from responsible utility officials that the LTIAP is being complied with. Violation of the certification should lead to an enhanced penalty, such as disqualification of the utility from intertie access for a period of time or a substantial monetary penalty.

The presumption of compliance found at paragraph I.3.a. should be eliminated. This presumption places an unwarranted burden on entities seeking to enforce the policy. It is inappropriate for Bonneville to place the burden of rebutting the presumption on entities that do not have adequate access to the information required to ascertain compliance. See 1 Weinstein's Evidence ¶300[02] ("A... consideration [in allocating the burden of proof] is that of fairness in allocating the burden of first producing evidence upon the party who has superior means of access to the proof"). Therefore, a preferable procedure would put on any entity seeking to ascertain compliance the duty to raise a point of concern regarding the operation of a particular resource. Such a point of concern need not be based on a high

level of factual proof, rather it should require a level of detail similar to that in NMFS' letter of April 17, 1986. Once a point of concern has been raised, the burden should shift to the utility to demonstrate compliance with regard to those facts raised in the point of concern. This procedure and the details of an appeal process should be included in the LTIAP and discussed in the DEIS.

The LTIAP should extend to the Federal Columbia River Power System (FCRPS) dams. The DEIS reveals that much of the impact to salmon and steelhead from intertie operations occurs at these dams. It is not appropriate under the equitable treatment standard to conduct out-of-region power sales if the FCRPS is not in compliance with Bonneville's own policy regarding fish protection. Requiring compliance with the LTIAP would provide a necessary sanction to punish any violation of the Fish and Wildlife Program which may occur at Corps of Engineers projects.

B. Specific Comments

A.14.b. We agree with Bonneville's decision to continue the ban on new resource access to the intertie but do not fully understand the basis for ending that ban when intertie capacity reaches 7900 Mw.

A.14.b.(1) This provision may constitute a significant loophole to the new resource ban. How does Bonneville intend to ensure that this provision is not used by scheduling utilities to develop new resources ostensibly designated to serve regional loads but having the effect of freeing up older resources to serve out-of-region loads?

C.3.c.(1) We strongly approve of the new policy regarding new hydroelectric plants. Our main concerns involve the large number of permit applications for small hydro projects with adverse effects on anadromous fish. It is important that Bonneville address this issue, as it has, in the LTIAP. However, some clarification of the new standard is necessary. The term "substantial" modifying adverse effects makes it difficult to understand what types of adverse effects are covered. This problem could be cured by deleting or adequately defining the term "substantial". "Substantial adverse effects" with respect to anadromous fish may be defined as follows:

> Any activity that may result in mortality or injury to anadromous salmon and steelhead resources or loss of natural habitat of any anadromous salmon and steelhead resources except when an owner or operator of the new hydroelectric plant proposes to modify an existing facility or project in such a manner that can be shown to restore, enhance or improve anadromous fish populations within that river system. Proposed mitigation which may result in a wild stock of fish being converted to a hatchery dependent resource is not acceptable mitigation.

See Chapter 569, Oregon Laws, 1985, (HB 2990).

C.3.c.(3) This section should be expanded to include FCRPS resources. As explained in the preceding paragraph, the term "substantial" needs to be either deleted or defined.

F.2.d. The policy of decrementing represents a substantial improvement over the NTIAP. As recommended above, a stiffer sanction than decrementing should be imposed on scheduling utilities and owner/operators who violate the terms of the policy. Decrementing by a multiple of the capacity of an offending resource would be more effective deterrence in the case of a small resource operated in violation of the policy.

I.3.a. The decision to not extend the presumption of compliance to new hydroelectric plants is an improvement. In general, the presumption should not exist for any resources.

I.3.e.(2) Allowing expenditures in lieu of measures to cure adverse impacts is not justified where wild and natural stocks are affected. Responsible agencies and tribes should be consulted in determining whether off-site mitigation measures are appropriate in a particular instance. "Not inconsistent" should be replaced with "consistent".

I.3.g.(1) and (2) Why is the standard for reviewing a petition to rescind the determination of adverse impact different from the standard for making the determination in the first place? Please refer to the discussion of this standard under section C.3.c.(1), above.

VIII. CONCLUSION

For the stated reasons, we conclude that the DEIS has so many defects as to require preparation and circulation of a revised draft EIS. See 40 C.F.R. §1502.9. Moreover, given the inadequacy of the discussion of mitigation measures, to go forward with the intertie proposals at this time would violate the Northwest Power Act's equitable treatment standard. We are willing to meet with Bonneville staff to address our concerns and sincerely hope that our differences can be resolved without needless delay and conflict.

With best wishes, I am,

Sincerely,

JIM JONES
ATTORNEY GENERAL

JTJ/pw

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attachment
TIE-1-7

MINUTES

MAINSTEM PASSAGE ADVISORY COMMITTEE
December 9, 1986
Portland, Oregon

Members present
Jim Ruff, Chairman
Chip McConnaha, Vice-Chair
Doug Arndt, COE
Stephanie Burchfield, CRITFC
Doug DeHart, NMFS
Fred Olney, USFWS
Al Wright, PNUCC

Members absent
Wes Ebel, NMFS
Steve Smith, BPA

Public present
Dick Adams, PNUCC
John Coon, PFMC
Margaret Filardo, CRITFC
Jim Geiselman, BPA
Mike Henry, FERC
Chris Ross, NMFS
Chris Stoffels, BPA
Frank Young, ODFW

Recorder
Dorothy Anderson

I. CALL TO ORDER

The meeting was called to order at 1:30 p.m. by Chairman Ruff.

II. AGENDA

There were no additions or deletions to the agenda (Exhibit A).

III. BUSINESS

The minutes of November 14, 1986 were reviewed with comment #1 on page 3 revised to read: "The 1985 spill program was selected rather than the 1986 program due to higher levels of spill in 1985".

IV. DISCUSSION OF DEVELOPMENT OF MAINSTEM PASSAGE MODEL

Jim Ruff briefly reviewed the discussion which took place at the November 14th MPAC meeting regarding the development of a new mainstem passage model. An outline of objectives and guidelines drafted by BPA and provided to the committee at the November meeting served as the focal point for further committee discussion.

Comments:

1. It was asserted that the effort involved in developing a new model would be justified only if the output focused upon the standardization of the analytical process rather than the achievement of greater precision.

2. It was suggested that a new model should include the capability of deriving outputs compatible with power analysis models such as the System Analysis Model.

3. It was requested that further comments on the draft "Proposal to Rewrite the FISHPASS Program" be submitted to Jim Ruff by December 15, 1986. A revised version of that proposal, based on committee comments, is included as Exhibit B, including an attached memorandum by Bolyvong Tanovan of the Corps of Engineers on the need for probabilistic additions to the FISHPASS model. Any further activity on model development will be under the auspices of a new advisory committee in the spring of 1987.

V. Maragaret Filardo, CRITFC, briefly summarized the organization of the revised draft sensitivity analysis results (Exhibit C) as follows:

1. The first set of model runs attempted to prioritize some of the parameters by analyzing the high and low estimate for each of the parameters. The prioritized set of parameters included reservoir survival, FGE, turbine survival, and spill effectiveness. Runs with and without FTOT transportation were then performed;

2. Because an analysis of this first set of runs showed that the results could not be directly compared between parameters, a second approach analyzed a certain percentage above and below the MPAC estimates.

Comments:

1. It was recommended that the sensitivity work group report serve as the foundation for any future proceedings in the development of a new mainstem passage model.

2. With reference to future sensitivity analysis work, it was suggested that an analysis using a range of spill scenarios would be useful.

3. It was agreed by the committee that the final report of the sensitivity analysis results would be included in the minutes of the December 9th meeting. This final report will incorporate editorial comments and suggestions submitted by committee members.

4. It was stressed that the committee recognize that the sensitivity analysis report does not attempt to evaluate the actual variability and/or range.

5. It was asserted that an analysis similar to that in the sensitivity report could provide an indication of future research needs.

7. Since a different flow year volume and pattern could result in different conclusions, it was cautioned that the output be applied appropriately.

8. It was suggested that the qualifications and limitations listed on page 8 be highlighted in the final report.

VI. FURTHER DISCUSSION OF SECTION 400 DRAFT AMENDMENT DOCUMENT MEASURES

Jim Ruff announced a meeting to be held at 2:00, December 12 at the downtown Seattle Hilton for purposes of discussing spill and water budget accounting. Chairman Ruff clarified the major topics of this discussion as consisting of the following:

1. The revision of the language regarding the accounting procedures in the water budget's accounting proposal. This revision was requested by CRITFC for purposes of maintaining flexibility in a situation which changes annually;

2. A proposal from IDFG recommending the minimum optimum flow concept for the Snake River;

3. The postponement of issues related to the above topics, along with an extension of the comment period;

4. The option of leaving portions of Section 300 open rather that the entire section.

VII. OTHER

None.

VIII. PUBLIC COMMENT

None.

IX. ADJOURN

James D. Ruff, Chairman

These minutes are a complete and accurate summary of the Mainstem Passage Advisory Committee meeting held December 9, 1986.

EXHIBIT A

NORTHWEST POWER PLANNING COUNCIL

SUITE 1100 • 850 S.W. BROADWAY
PORTLAND, OREGON 97205 • (503) 222-5161

Toll free number for Idaho, Montana & Washington: 1-800-222-3355
Toll free number for Oregon: 1-800-452-2324

AGENDA

Meeting of the

MAINSTEM PASSAGE ADVISORY COMMITTEE

1:30 p.m. - December 9, 1986
Council Meeting Room
Portland, Oregon

I. Call to order

II. Review agenda

III. Business

IV. Discussion of development of mainstem passage model

V. Work group report on final results of FISHPASS model sensitivity analysis

VI. Further discussion of Section 400 draft amendment document measures

VII. Other

VIII. Public comment

IX. Adjourn

Exhibit B

December 15, 1986

MEMORANDUM

TO: MPAC Members

FROM: Jim Ruff JR

SUBJECT: Revisions to the Proposal to Rewrite the FISHPASS Program or to Develop a New Mainstem Passage Survival Model

The following are committee member suggestions and revisions to the objectives concerning proposals to rewrite the FISHPASS program to make it more "user-friendly," as discussed at recent Mainstem Passage Advisory Committee (MPAC) meetings. These suggestions, if implemented in total, would likely necessitate development of a new mainstem passage survival model. As stated at the last MPAC meeting, development of a new mainstem passage model would be justified only if the effort focused on standardization of the analytical processes in the model rather than trying to achieve greater output precision. The model should also be accessible to any agency or organization which desires to utilize the model's analytic capabilities.

Model Objectives or Suggested Revisions

1. A user should be able to run the model on a PC rather than a mainframe. It could be a major undertaking to develop such a model on a PC, since the existing FISHPASS program requires over 640,000 bytes of storage to run.

2. The model needs to be more flexible and easier to run than FISHPASS.

a. Parameters should be able to be modified easily to enable the user to run alternative passage scenarios quickly. Presently, FISHPASS data sets have to be changed manually for each scenario to be studied, which is a time-consuming and laborious process.

b. It should have a built-in sensitivity for fish guidance efficiencies and other passage parameters, i.e., a switch that could be turned on or off to utilize parameter distributions (see also 5.d. below).

3. The model should be user-friendly so that it does not require extensive training or computer skills to run, i.e., both the input and output files should be menu-driven.

4. The ability to link the program's output to other models needs to be considered, although developing such linkages could be difficult since it would require development of interface programs for both the input and output data files. Suggestions for possible model linkages include:

a. A linkage with the System Analysis Model or the VAX system.
b. A linkage with the SAS graphics program.
c. A linkage with the Council's "gravel-to-gravel" life cycle production model.
d. A linkage to BPA-Fish and Wildlife Division's project management information system for simulation of proposed and completed projects.

5. Input data file suggestions:

a. The input data files should be menu-driven, for example:

1) Link to a water year dataset--could have default water years built into the program, but user could also choose different water years.
2) Should have the potential to include new or expanded hatchery production.
3) Should be able to apply the EPA stream reach designation code to enable a linkage to the Council's anadromous fish data base.

b. User should be able to specify alternative seasonal and diel fish distributions, i.e., skewed early or late, random, or normal distribution between two dates.
c. Should consider changing the fish input for Lower Granite and Wells headwaters so it is in the same format as the hatchery data.
d. Should consider building in stochastic elements for selected input parameters, e.g., developing a production distribution in input data file. This assumes adequate data are available to develop probability distributions and that consensus can be reached on use of distributions.
e. An option should be available to specify a differential mortality for transported fish, by species.

6. Output data file suggestions:

a. An output summary table should be developed to enable "first glance" review of results without having to wade through all output.
b. The output files should be menu-driven, i.e., the program should have a menu containing a listing and brief description of each output report available so a user can select output report(s) of interest.
c. The output should have the capability to provide the following types of information:

1) System stock survival rates for each stock, regardless of where a stock enters the system, e.g., stream or hatchery.
2) Dam survival rates.
3) Reservoir survival rates.
4) Project survival rates, e.g., dam + reservoir survival.
5) System survival rates.
6) System reservoir survival rates.
7) System dam survival rates.
8) Survival rates 2) through 7) above by species.
9) Total numbers of fish arriving below BON Dam, by stock.

10) The seasonal and diel fish distributions used.
11) The percentages of hatchery vs. natural or wild production within each pool, for the spring and summer periods.

d. Maintain all output that FISHPASS reports now, but reformat it in a simpler, tabular form.
e. Include the capability to have output files graphically displayed.
f. Provide an output file showing number of juveniles entering various points of the Columbia and Snake rivers by stock and whether artificially or naturally propagated.
g. Provide the capability for 40 or 50-year hydrologic simulations with resulting expected value survival levels by stock, for both base year and future year production levels, or an average annual production level. It was noted this would be a very time consuming and difficult program to run on a PC system.

ATTACHMENT

25 August 1986

NPDEN-WM(Water Quality)

MEMORANDUM FOR THE RECORDS
Subject: Probabilistic Appendage to FISHPASS Model

1. FISHPASS Model is a conceptual model designed to perform a detailed accounting of anadromous fish losses in the main stem Columbia/Snake Rivers (See attached model description). While it incorporates elements that are believed to be fairly representative of the fish migration process, many of its inputs are presently only known within variable ranges of values; and there is no easy way of directly determining the accuracy of its output. For practical purposes, it is essential to provide some kind of probabilistic sensitivity analysis, including simple variances and summary statistics based on these variances. We need a procedure to quickly determine the confidence level of the model output by using the least amount of parameter combinations possible and, therefore, by making the minimum number of model calculations.

2. Since there are a good one dozen of parameters involved in the model, to include all the logical combinations of high and low values of these parameters (C=2**12=4096) in the probabilistic sensitivity analysis would clearly be unmanageable. Several simplifying assumptions come to mind that may reduce the number of combinations, e.g. high and the low parameter values have equal or quantifiable differential occurrence probabilities; selected parameters are semi-independent and vary up and down in tandem; parameter variation can be approximated by a known function, possibly linking frequency of occurrence and parameter values; etc.

3. An alternative to the above problem would be to try to first agree on the probability distribution for each parameter of the model-- outlining the shape of the distribution function between the high and the low parameter values and relating this distribution function with quantifiable parameter values. This alternative should also involve examining how joint probability would work for those parameters that may not be truly independent from a biological point of view (conditional probability). The remaining task would then be, knowing the probabilities of occurrence for each and every parameter value specified to the model, to determine the resulting confidence level of the model output.

4. A variation to the alternative mentioned in Paragraph 3 would be to apply one of the Monte Carlo simulation techniques. The following steps would be followed:

(1) define the parameter distribution probability functions
(2) calculate the cumulative distribution function
(3) generate N cycles of random numbers
(4) locate parameter value for each random number
(5) run the model for each of the N parameter sets, and
(6) calculate the average value of the outputs

Obviously, this approach assumes that the model parameters can vary randomly between given high and low values, and that the entire set of logical parameter combination is all physically possible (and will occur with certainty).

5. Regardless of the procedure used, there appears to be considerable problem in accommodating the truly randomness of parameter distribution and conditional probability, and in achieving meaningful results with a limited number of model runs. Brain-storming between knowledgeable fish biologists, computer modelers and statisticians on this subject would be highly beneficial.

Bolyvong Tanovan
Ch, Water Quality Section

FISHPASS SENSITIVITY

INTRODUCTION

Ecological models, which can be used to simulate biological systems, can provide useful information on the response of the environment to various factors. FISHPASS is a complex ecological model that simulates the process of smolt outmigration in the Columbia River ecosystem. This process is dependent on several interactive factors that are poorly understood or highly variable. The FISHPASS model contains many assumptions about these factors and their interactions that can greatly affect the model output. Therefore, an analysis of the behavior and characteristics of the model was conducted to facilitate the application of FISHPASS to planning and management. Ideally, the model should be sufficiently defined such that there is no variability in the interpretation of the output.

The level of precision of the input parameters, or various interactions, determines the emphasis placed on the numerical value associated with the output. If the precision and interaction of individual parameters are not sufficiently documented, then the model output could be used to provide insight into the general trends in the whole system rather than to supply detailed information of each component of the system. The results may also provide an indication as to where more investigations or other actions may be required.

For any model development there are six major phases (Orlob, 1975):

Conceptualization;
Functional Representation;
Computational Representation;
Calibration;
Verification or Sensitivity; and
Documentation.

Most of the major phases listed above have been completed for the FISHPASS model. Chief among the previously ignored phases has been the verification or sensitivity phase.

The purpose of the sensitivity or verification phase of model development is to define the model's response to variations in input data, coefficients, boundary conditions, and the functional representations included in the model. The product of a sensitivity analysis may be a modified or improved model or simply a statement of the model's limitations in terms of the data and information supplied to it (i.e., an awareness of its precision).

In its May 16, 1986 meeting, the Mainstem Passage Advisory Committee (MPAC) formed an ad hoc work group to design a series of sensitivity tests of the FISHPASS model and to collate and analyze results of these tests. The primary objective of this task was to provide an indication of which parameters have the most impact on the model results. By identifying the most A sensitive parameters, model users might gain a better appreciation of the risk and uncertainty associated with the model's results. Moreover, future research efforts could be directed to reduce the uncertainty of those input parameters in efforts to increase the precision of the model.

METHODS AND DESIGN OF STUDIES

The work group jointly developed a list of input parameters. This list was prioritized according to preliminary studies conducted on SURVIVAL, a spreadsheet fish passage model developed by the Columbia River Inter-Tribal Fish Commission (See July 3, 1986 memo to James Ruff from Stephanie Burchfield). At the July 26, 1986 MPAC meeting, the committee directed James Ruff to request the Corps of Engineers to conduct 20 model runs for the highest priority parameters (See August 6, 1986 letter to Colonel James R. Fry from James Ruff). After the initial model runs were completed, the ad hoc work group collated the data and presented it at the September 25, 1986 MPAC meeting.

The first set of model runs included two base conditions: one with no fish transportation and the other with transportation according to 1986 Fish Transportation Oversight Team (FTOT) guidelines. The base runs were identical in all other respects. The following conditions were held constant for all runs:

1) Fish input only above Lower Granite Dam
2) Monthly flows based on the 1932 water year (average)
3) Spill according to the Corps' 1985 Fish Passage Plan
4) All other parameters consistent with 1985-1986 MPAC values

(Spill and MPAC parameters are listed in Table 1)

In addition to the 2 base runs, 18 studies were conducted that tested the following five input parameters: 1) reservoir mortality, 2) transport mortality, 3) spill effectiveness, 4) fish guidance efficiency (FGE), and 5) turbine survival. Each of these parameters was tested with a high and a low value. The

values were mutually agreed upon by the ad hoc group, and while in some cases they represent measured ranges in data, not all of the values are based on measured data. These values are listed in Table 2, which also lists the titles of the initial 20 model runs.

Following review of the results of the initial model runs, the ad hoc work group recommended that additional runs be conducted in which parameters were varied by a given percent above and below the base run (MPAC) values. The parameters that were tested in the next set of model runs (32) included the five listed above as well as seasonal distribution and hourly distribution (See October 8, 1986 letter to Nicholas Dodge from James Ruff). Table 3 lists these runs and identifies the percent changes in each parameter.

After collating the results, the work group prepared tables and graphs to assist in the interpretation of the results.

Table 1. Values used for input parameters in FISHPASS model for MPAC sensitivity analyses.

Parameter/Dam	Lower Granite	Little Goose	Lower Monumental	Ice Harbor	McNary	John Day	The Dalles	Bonneville
Spill [1] efficiency	0	0	50%	25%	0	0 [2]	20%	37%
Diurly fish dist.	1:1 at all dams except The Dalles Curve 1 at all dams for all species except curve 2 at Ice Harbor and curve 2 for the alukeney at The Dalles.							
Turbine Survival	.85 at all dams							
Spill Survival	.98 at all dams							
Collection Survival	.99 at all dams							
Bypass Survival	.99 at all dams							
Transport Survival [3]	.95	.95	-	-	.99	-	-	-
Sluiceway Survival	-	-	-	.99	-	-	.99	-
Sluiceway Efficiency (all species)	-	-	-	.51	-	.40	-	-
Fish Guidance Efficiency								
Yearling Chinook	.50	.50	.03	.03	.74	.72	.03	.76 [4]
Subyearling Chinook	.50	.50	.03	.03	.38	.20	.03	.72
Steelhead	.74	.74	.03	.03	.76	.85	.03	.78

1. Spill is listed as an instantaneous percent of hourly flow during 12 hours.
2. At John Day, spill in June = 26% of instantaneous flow for 12 hours.
3. No "post transport" adjustment factor is applied to transported fish.
4. FGE at Bonneville I as shown. FGE at BVL II = .19, .24, and .35.

Table 2. Initial FISHPASS Model runs for MPAC Sensitivity Analyses.

Model Run Name	Parameter Varied	Value Used	Transport Status
Base Run A	none	-	no
Base Run B	none	-	yes
Reservoir Mortality low	Res.mort.	*	no
Reservoir Mortality low	Res.mort.	*	yes
Reservoir Mortality high	Res.mort.	#	no
Reservoir Mortality high	Res.mort.	#	yes
Transport Mortality low	Trans.mort.	1%	yes
Transport Mortality high	Trans.mort.	97%	yes
Spill Effectiveness low	Fish:spill	.45:1	no
Spill Effectiveness low	Fish:spill	.45:1	yes
Spill Effectiveness high	Fish:spill	2.35:1	no
Spill Effectiveness high	Fish:spill	2.35:1	yes
FGE low	FGE	$	no
FGE low	FGE	$	yes
FGE high	FGE	$	no
FGE high	FGE	$	yes
Turbine mortality low	Turb.mort.	7%	no
Turbine mortality low	Turb.mort.	7%	yes
Turbine mortality high	Turb.mort.	32%	no
Turbine mortality high	Turb.mort.	32%	yes

*MPAC reservoir survival curve was shifted upward by 20%.
#MPAC reservoir survival curve was shifted downward by 20%.

$The following FGE values (listed for yearling chinook/subyearling chinook/steelhead) were used at each dam for either the low or high runs (The values at Ice Harbor and The Dalles were intended to replace sluiceway values, but in actual runs the FGE values were replaced instead):

	% FGE Low	% FGE High
Lower Granite	33/33/60	75/50/74
Little Goose	33/33/60	75/50/74
Lower Monumental	0/0/0	3/3/3
Ice Harbor	23/18/23	51/51/51
McNary	60/34/65	83/62/80
John Day	60/20/65	72/60/80
The Dalles	25/15/25	40/40/40
Bonneville I	66/54/60	83/72/79
Bonneville II	19/20/19	68/55/63

Table 3. Second set of FISHPASS Model runs for MPAC Sensitivity Analyses. Each model run listed was tested with and without FTOT transport except the following parameters were tested only under the transport scenario: transport mortality, hourly fish distribution, and seasonal fish distribution.

Model Run Name	Parameter Varied	Value Used
Reservoir Mortality -10%	Res.mort.	*
Reservoir Mortality +10%	Res.mort.	‡
Transport Mortality 30%	Trans.mort.	30%
Transport Mortality 60%	Trans.mort.	60%
Spill Effectiveness	Fish:spill	.75:1
Spill Effectiveness	Fish:spill	1.50:1
FGE -50% at each dam	FGE	$
FGE +50% at each dam	FGE	$
FGE -25% at each dam	FGE	$
FGE +25% at each dam	FGE	$
Turbine mortality =0%	Turb.mort.	0%
Turbine mortality =24%	Turb.mort.	24%
Hourly fish distribution	Hourly	+4 hrs
Hourly fish distribution	Hourly	-4 hrs
Hourly fish distribution	Hourly	+8 hrs
Hourly fish distribution	Hourly	-8 hrs
Seasonal fish distribution	yrlg/subyr/stlh (days)	+5/6/4
Seasonal fish distribution	yrlg/subyr/stlh (days)	-5/6/4
Seasonal fish distribution	yrlg/subyr/stlh (days)	+13/18/13
Seasonal fish distribution	yrlg/subyr/stlh (days)	-13/18/13

*MPAC reservoir survival curve was shifted upward by 10%.
‡MPAC reservoir survival curve was shifted downward by 10%.

$The following FGE values (listed for yearling chinook/subyearling chinook/steelhead) were used at each dam (the values at Ice Harbor and The Dalles replaced sluiceway rather than FGE values):

	FGE-50%	FGE+50%	FGE-25%	FGE+25%
Lower Granite	25/25/37	75/75/100	38/38/56	63/63/93
Little Goose	25/25/37	75/75/100	38/38/56	63/63/93
Lower Monumental	2/2/2	5/5/5	2/2/2	4/4/4
Ice Harbor	26/26/26	77/77/77	38/38/38	64/64/64
McNary	38/19/38	100/57/100	56/29/57	92/48/95
John Day	36/10/43	100/30/100	54/15/64	90/25/100
The Dalles	20/20/20	60/60/60	30/30/30	50/50/50
Bonneville I	38/36/39	100/100/100	57/54/58	95/90/98
Bonneville II	19/24/35	19/24/35	19/24/35	19/24/35

RESULTS

The results of the FISHPASS modeling exercise for the no transport runs are tabulated in Tables 4 through 9 and in Tables 10 through 15 for the FTOT transport runs. Each value for system survival is assessed as a percent deviation from either base case A (no transport) or base case B (FTOT transport). The base cases use MPAC values (listed in Table 1) for all input parameters.

The slopes of the lines associated with the percent changes in system survival from the base cases were calculated in the following fashion: a regression line was drawn using the zero value of the base case and the two points closest to the base case for both reservoir mortality and FGE (for reasons further explained in subsequent sections); for turbine mortality all points on the graph were used. The slopes reported in Table 16 are the slopes of the regression lines and represent the average percent change in system survival for a one percent increase in the input parameter.

LIMITATIONS OF ANALYSIS

Careful consideration must be given to the interpretation of the results of this sensitivity analysis. The analysis is limited in its application by the constraints of the input parameters i.e., water year, input of Lower Granite fish only, spill regime and FTOT transport scenario. The 1932 water year represents an average water year and parameters which are affected by flow (e.g. amount of spill and reservoir mortality) could behave

differently under other water conditions. The input of fish only at Lower Granite causes maximum differences between the transport and no transport scenarios since almost all fish are removed at the Snake River collector projects leaving very few in-river migrants below Little Goose Dam. In addition, more error is associated with subyearling results since the Lower Granite input contains very few subyearling fish. Spill (according to the 1985 Corps fish passage plan) occurs only at Lower Monumental, Ice Harbor and The Dalles Dams in the spring and summer and at John Day Dam in the summer. Consequently, any changes in fish:spill ratios should be analyzed in terms of the dam survival at these dams. Likewise, the sensitivity of FGE is impacted by the level of bypass development modeled at each dam. For the purposes of these studies, bypass system development was assumed at its current status. If fully operational bypass systems were assumed for every dam, FGE would have been a more important factor in the sensitivity analysis. Finally, the results of the FTOT transport scenarios cannot be assumed to produce the same results as a full transport scenario.

RESERVOIR MORTALITY

The percent differences from either base A or B are plotted versus the percent difference from the MPAC reservoir mortality curve for yearling, subyearling and steelhead outmigrants (Figures 1-3). It should be noted that a decrease in reservoir mortality of 20% could translate to a reservoir survival greater than 100% at certain flows. To avoid this problem of "creating"

fish in a reservoir (i.e., reservoir survival values which exceed 100%), 100 percent reservoir survival may have to be used even before the full 20% decrease in reservoir mortality is achieved. Furthermore, plots of reservoir mortality versus percent difference from the base case in the no transport run are neither symmetrical nor linear.

Several conclusions can be drawn from these graphs:

1) The no transport scenario is characterized by a steeper slope than the FTOT scenario because of the larger number of fish exposed to reservoir mortality in the no transport scenario. (The negative slope means that a decrease in reservoir mortality actually results in an increase in survival).

2) Reservoir mortality is the most sensitive parameter in the model. (It should be noted that even the FTOT transport scenario, where very few fish are affected by reservoir mortality, provides slopes that are equal to those obtained in the FGE scenario).

3) The reservoir mortality sensitivities (slopes in Table 16) for different pool stocks relative to the FGE and turbine mortality sensitivities will approach the no transport results (even with transportation at upriver dams) as one considers stocks entering at dams progressively downstream from Lower Granite Dam.

4) Flow conditions would not have substantial impacts on the sensitivity results of reservoir mortality scenarios as altered in these studies. The reservoir survival curve agreed to by MPAC

was merely adjusted upward or downward by a set percent in these studies. Hence, the slopes of the regression lines for yearling, subyearling, and steelhead are not significantly different in the no transport scenarios despite changes in flow between the spring and summer seasons. A more comprehensive study would evaluate changes in reservoir mortality by varying the shape of the reservoir survival curve rather than simply shifting the curve.

FISH:SPILL

The changes in survival with changes in the fish:spill ratio cannot be analyzed using system survival changes since spill occurred at so few dams. Referring to the tables, it should be noted that changes in dam survival of greater than 5 percentage points are measured at Lower Monumental and up to 4 percentage points at The Dalles for a 135% increase in spill efficiency. The importance of the fish:spill ratio is a function of the dams at which spill occurs and the amount of spill at the dam. For instance, at John Day dam (where only summer spill occurs) only small variations in dam survival are measured.

FGE

The percent difference in system survival from either base case versus the percent difference from the MPAC values for FGE are plotted for the three different outmigrants (Figures 4-6). The y-axis is asymmetrical since at some dams a 50% increase in FGE from the MPAC value would cause the value to exceed 100% guidance. The change in FGE at Ice Harbor and The Dalles reflects changes in the sluiceway passage efficiency.

Additionally, Lower Monumental has no bypass system; therefore, small changes were made in the percent of fish voluntarily entering the gatewell orifices. Under the FTOT transport scenarios for Lower Granite fish, the slopes associated with the lines for the three groups of outmigrants are approximately equal to the slopes for reservoir mortality and turbine survival. Under no transport the FGE sensitivity for system survival is less than that of both reservoir mortality and turbine survival.

TURBINE SURVIVAL

The percent difference in system survival from the base case versus the percent difference from the MPAC value for turbine survival is plotted for each group of outmigrants (Figures 7-9). The asymmetry of the y - axis is a function of the compounding of the benefits of increasing turbine survival. If more fish survive through an upriver dam then more will be present at the next dam. If these increases in survival occur through the entire system, then there is the probability that deviation from the base case will occur more rapidly than for decreases in FGE.

The slope for turbine survival is approximately the same as the other scenarios in the FTOT transport scenario and a little less than half the value of the no transport reservoir mortality scenario. For in-river migrants it appears to be an important parameter.

TRANSPORTATION MORTALITY

Transportation mortality was not evaluated in the same fashion as the other parameters because: 1) unlike the other parameters, it was not increased a set percentage above or below

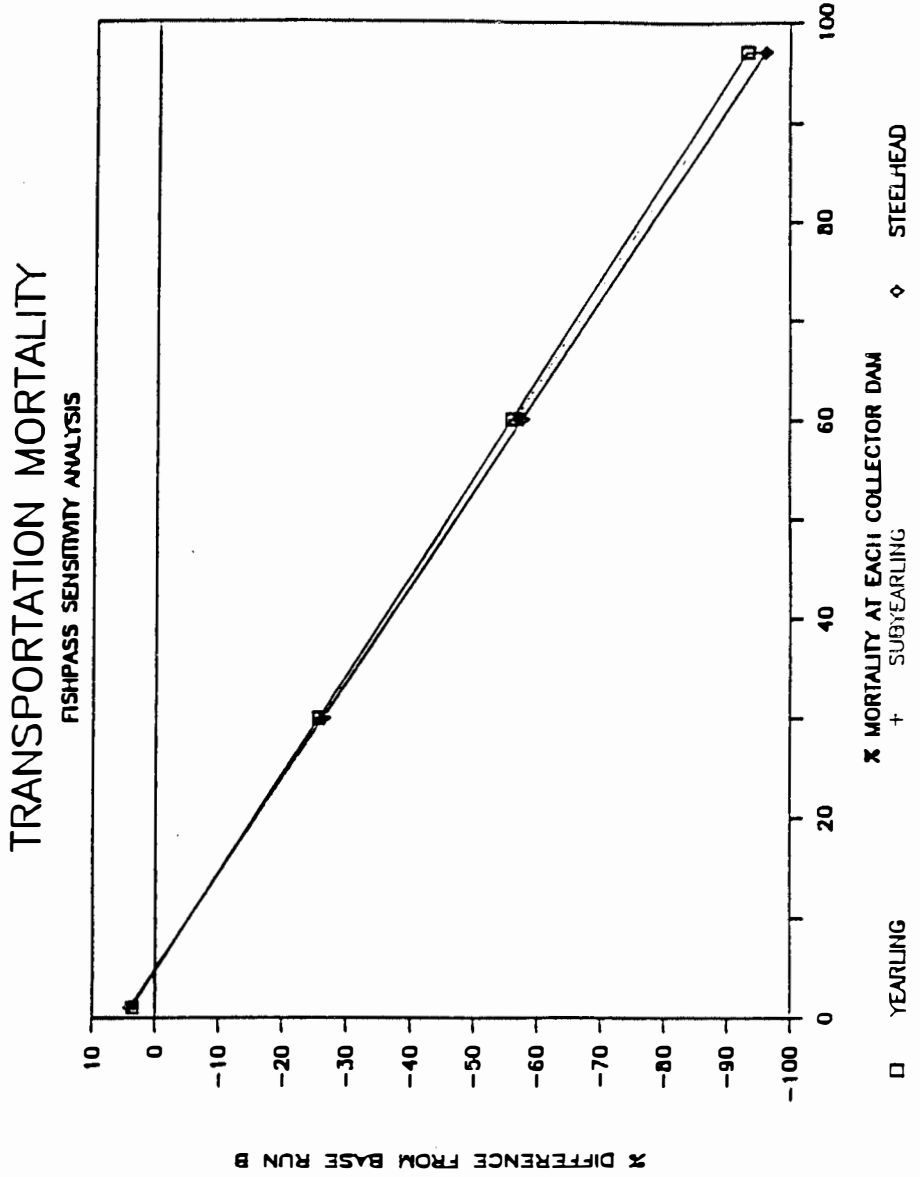
page 13 missing 1/14/87

CONCLUSIONS

The ad hoc work group did not by any means conduct a complete sensitivity analysis. In order to address all the logical combinations of the high and low values of at least twelve parameters would require more than 4000 runs (Tanovan, August 25, 1986). Since this approach was not practical in this forum, certain key parameters in the model were identified and tested. The work group did not address any interactions that might occur among these variables.

Attached is an August 25, 1986 memorandum from Bolyvong Tanovan. It proposes to consider the variables in FISHPASS as probability distributions rather than parameter values. As more data for each parameter becomes available, this approach would be recommended for modeling purposes. However, at this time the work group agrees that this approach to parameterization would assign the model variables a level of precision which is not justified.

Figure 10. Percent deviation from Base B with different mortality values for yearling, subyearling and steelhead.



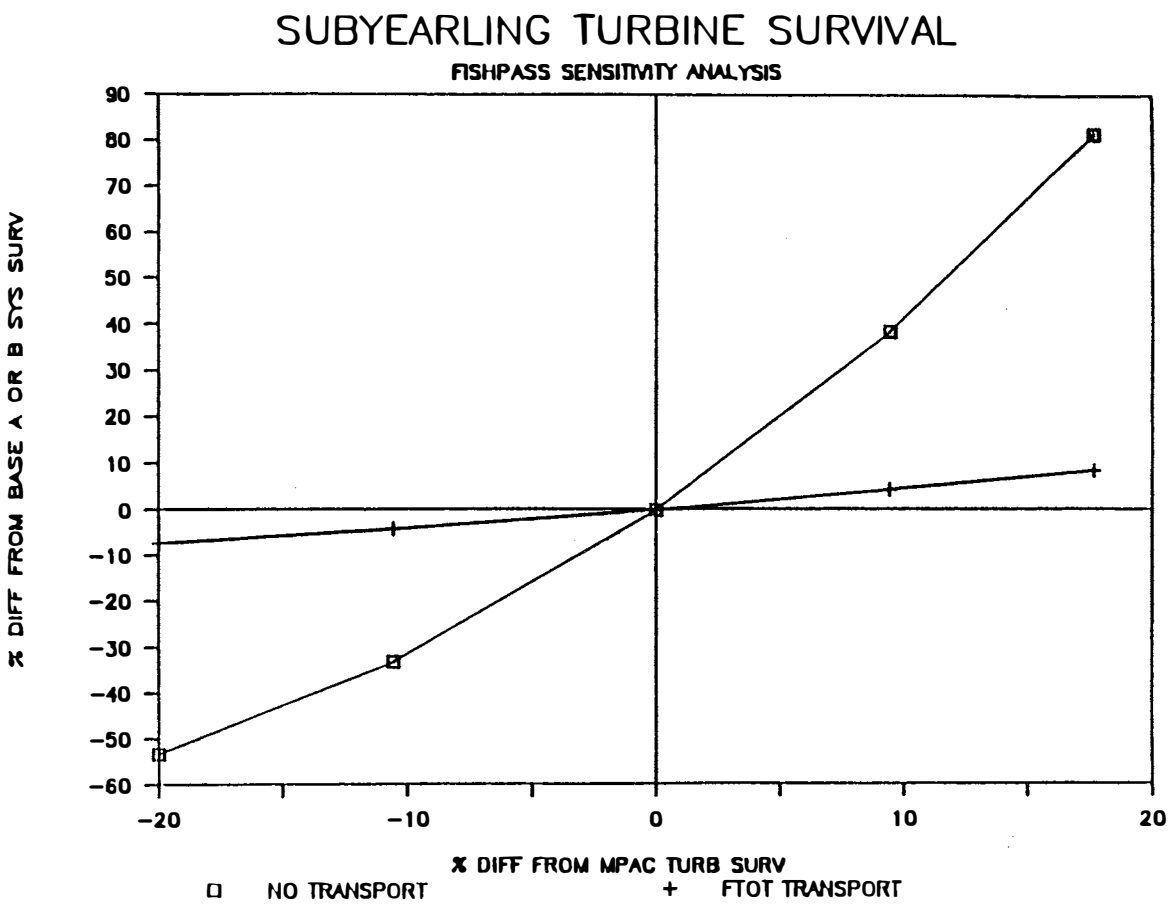


Figure 6. Percent deviation from base A or B with changes in turbine survival for subyearling outmigrants.

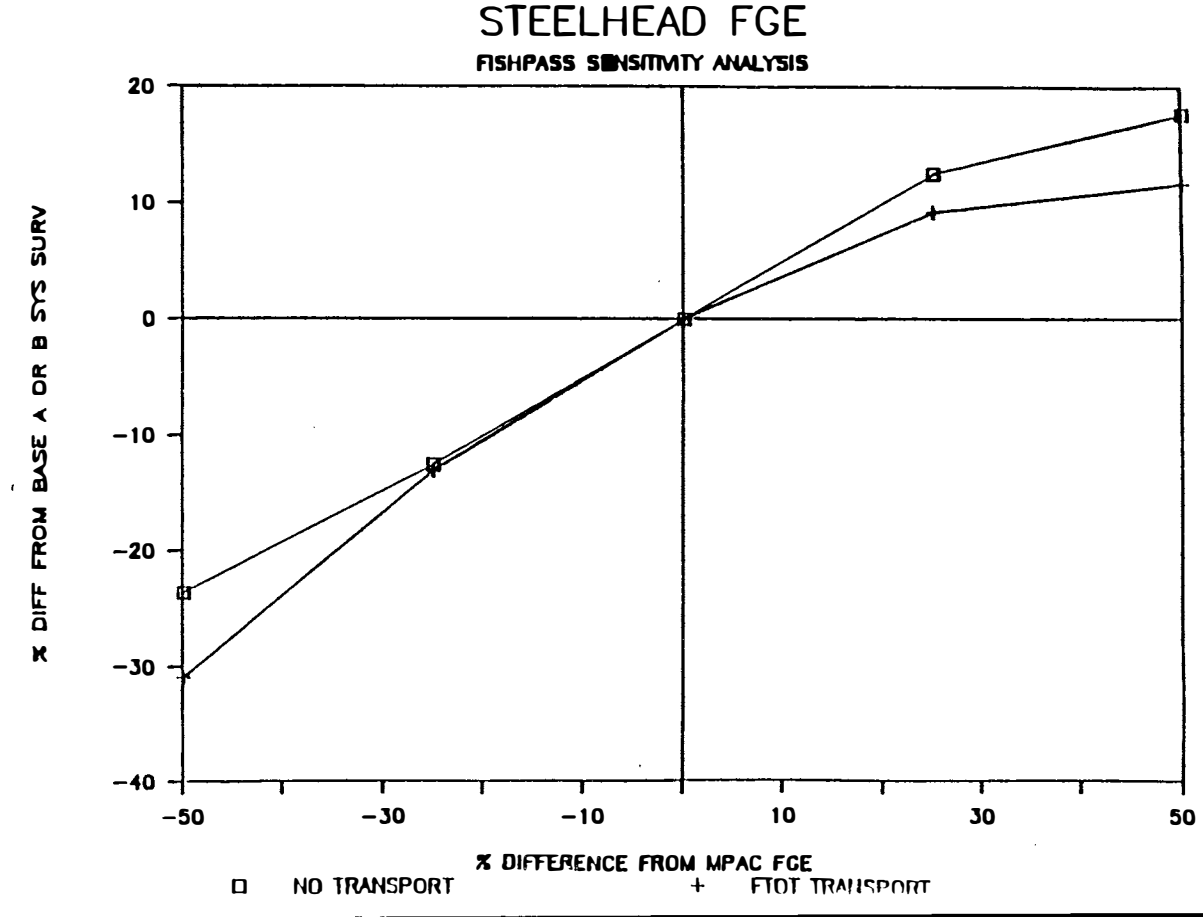


Figure 5. Percent deviation from base A or B with changes in fish guidance efficiency for steelhead outmigrants.

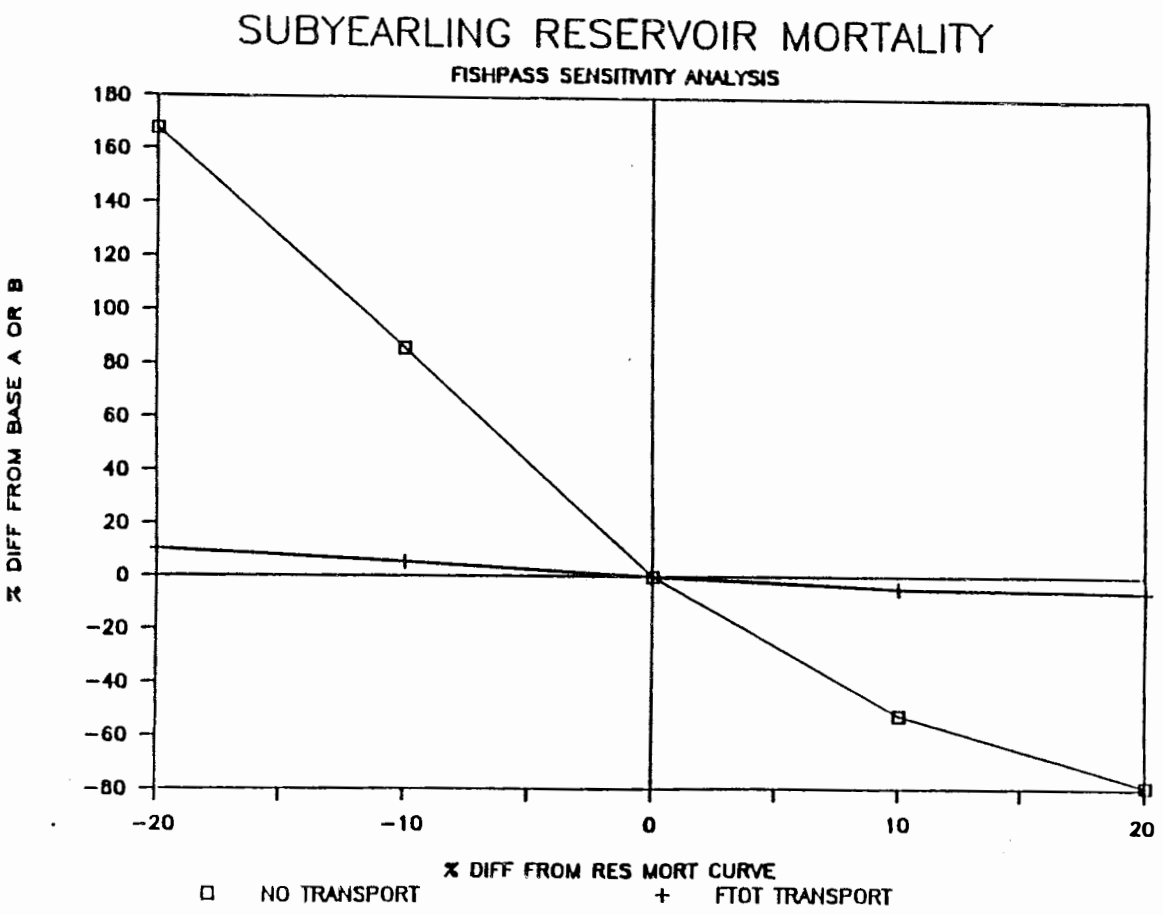


Figure 3. Percent deviation from base A or B with changes in reservoir survival for subyearling outmigrants.

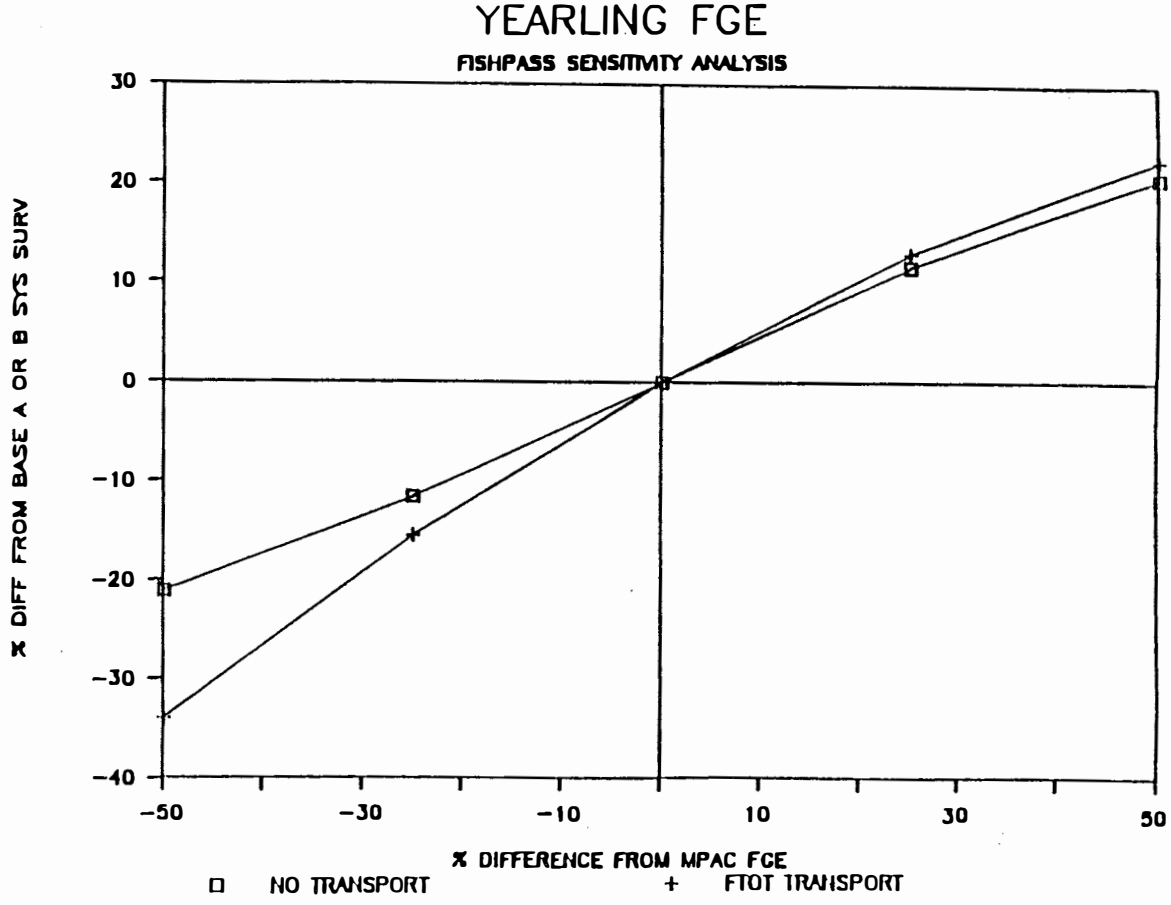


Figure 4. Percent deviation from base A or B with changes in fish guidance efficiency for yearling outmigrants.

Table 16. Slopes associated with the regression line of the points around the MPAC value for a given parameter.

Parameter	Scenario	
	No Transportation	FTOT Transportation
Reservoir Mortality		
Yearling	- 6.85	- 0.74
Subyearling	- 6.92	- 0.50
Steelhead	- 6.94	- 0.29
FGE		
Yearling	0.46	0.57
Subyearling	0.35	0.66
Steelhead	0.50	0.44
Turbine Survival		
Yearling	2.82	0.54
Subyearling	3.56	0.42
Steelhead	2.12	0.23

Table 14. Dam and system survival values for steelhead outmigrant FTOT transport FISHPASS runs.

MPAC FISHPASS SENSITIVITY RUNS

FTOT TRANSPORT SCENARIOS

STEELHEAD	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN: B	0.918	0.921	0.906	0.942	0.957	0.965	0.927	0.964	0.837
RES MORT +20%	0.918	0.921	0.906	0.942	0.957	0.965	0.927	0.964	0.795
RES MORT - 10%	0.918	0.921	0.906	0.937	0.957	0.965	0.925	0.964	0.864
RES MORT + 10%	0.918	0.921	0.906	0.937	0.957	0.965	0.925	0.964	0.815
RES MORT -20%	0.918	0.920	0.906	0.942	0.957	0.965	0.927	0.964	0.678
FISH:SPILL .45:1	0.918	0.919	0.877	0.934	0.952	0.962	0.906	0.963	0.842
FISH:SPILL .75:1	0.919	0.920	0.893	0.934	0.953	0.963	0.925	0.963	0.840
FISH:SPILL 1.5:1	0.919	0.922	0.932	0.945	0.963	0.967	0.960	0.964	0.832
FISH:SPILL 2.25:1	0.920	0.926	0.958	0.956	0.966	0.971	0.966	0.964	0.824
FGE LOW	0.906	0.908	0.903	0.952	0.946	0.943	0.940	0.952	0.760
FGE HIGH	0.918	0.921	0.906	0.966	0.961	0.959	0.949	0.966	0.839
FGE + 25%	0.935	0.939	0.906	0.953	0.976	0.980	0.930	0.975	0.914
FGE + 50%	0.941	0.949	0.907	0.967	0.980	0.980	0.934	0.975	0.933
FGE - 25%	0.902	0.904	0.905	0.925	0.938	0.941	0.921	0.952	0.728
FGE - 50%	0.886	0.887	0.905	0.910	0.918	0.916	0.916	0.940	0.578
TURB MORT = 0%	0.957	0.958	0.991	0.992	0.984	0.982	0.991	0.983	0.874
TURB MORT = 7%	0.939	0.940	0.951	0.972	0.971	0.974	0.962	0.974	0.856
TURB MORT = 24%	0.896	0.898	0.854	0.905	0.942	0.954	0.886	0.952	0.818
TURB MORT = 33%	0.875	0.879	0.809	0.880	0.929	0.945	0.853	0.942	0.802
TRANS MORT = 1%	0.947	0.948	0.906	0.942	0.957	0.965	0.927	0.964	0.872
TRANS MORT = 30%	0.740	0.751	0.906	0.937	0.813	0.965	0.925	0.964	0.618
TRANS MORT = 60%	0.525	0.547	0.906	0.937	0.665	0.965	0.925	0.964	0.357
TRANS MORT = 97%	0.260	0.295	0.906	0.942	0.481	0.965	0.927	0.964	0.034
FISH DIST + 4 HR	0.918	0.919	0.886	0.933	0.953	0.963	0.918	0.956	0.841
FISH DIST + 8 HR	0.918	0.919	0.885	0.933	0.953	0.963	0.909	0.961	0.841
FISH DIST - 4 HR	0.918	0.920	0.906	0.937	0.956	0.964	0.918	0.964	0.838
FISH DIST - 8 HR	0.917	0.919	0.870	0.931	0.951	0.962	0.907	0.953	0.843
FISH DIST + 5 DAY	0.919	0.921	0.906	0.938	0.959	0.965	0.925	0.964	0.834
FISH DIST - 5 DAY	0.918	0.919	0.905	0.936	0.955	0.963	0.925	0.963	0.842
FISH DIST + 10 DAY	0.918	0.920	0.906	0.937	0.961	0.965	0.926	0.964	0.835
FISH DIST - 10 DAY	0.917	0.918	0.894	0.933	0.954	0.963	0.917	0.963	0.839

Table 12. Dam and system survival values for the subyearling outmigrant FTOT transport FISHPASS runs.

MPAC FISHPASS SENSITIVITY RUNS

FTOT TRANSPORT SCENARIOS

SUBYEARLING CHINOOK	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN B	0.895	0.896	0.904	0.938	0.915	0.883	0.926	0.957	0.644
RES MORT +20%	0.895	0.896	0.904	0.938	0.915	0.883	0.926	0.957	0.594
RES MORT - 10%	0.895	0.896	0.904	0.938	0.915	0.883	0.924	0.957	0.680
RES MORT + 10%	0.895	0.896	0.904	0.938	0.915	0.883	0.924	0.957	0.616
RES MORT -20%	0.895	0.895	0.904	0.938	0.914	0.883	0.925	0.957	0.712
FISH:SPILL .45:1	0.895	0.895	0.877	0.932	0.906	0.879	0.905	0.957	0.644
FISH:SPILL .75:1	0.895	0.895	0.892	0.931	0.911	0.881	0.924	0.957	0.644
FISH:SPILL 1.5:1	0.895	0.896	0.930	0.939	0.923	0.867	0.957	0.957	0.645
FISH:SPILL 2.35:1	0.896	0.896	0.955	0.951	0.931	0.893	0.964	0.957	0.646
FGE LOW	0.880	0.880	0.902	0.946	0.911	0.883	0.933	0.945	0.492
FGE HIGH	0.895	0.896	0.904	0.964	0.940	0.932	0.948	0.959	0.653
FGE + 25%	0.907	0.907	0.905	0.948	0.926	0.890	0.928	0.969	0.744
FGE + 50%	0.918	0.918	0.906	0.963	0.935	0.896	0.933	0.976	0.821
FGE - 25%	0.884	0.884	0.904	0.918	0.905	0.877	0.919	0.945	0.531
FGE - 50%	0.873	0.873	0.903	0.904	0.895	0.870	0.914	0.932	0.399
TURB MORT = 0%	0.970	0.970	0.992	0.993	0.990	0.995	0.991	0.984	0.699
TURB MORT = 7%	0.935	0.935	0.951	0.970	0.955	0.943	0.962	0.971	0.672
TURB MORT = 24%	0.850	0.851	0.852	0.898	0.870	0.816	0.885	0.941	0.618
TURB MORT = 32%	0.810	0.811	0.865	0.870	0.831	0.758	0.949	0.928	0.598
TRANS MORT = 1%	0.915	0.915	0.904	0.938	0.915	0.883	0.926	0.957	0.670
TRANS MORT = 30%	0.772	0.772	0.904	0.938	0.915	0.883	0.924	0.957	0.479
TRANS MORT = 60%	0.623	0.624	0.904	0.938	0.748	0.883	0.924	0.957	0.261
TRANS MORT = 97%	0.441	0.442	0.904	0.938	0.643	0.883	0.926	0.957	0.036
FISH DIST + 4 HR	0.895	0.895	0.885	0.931	0.909	0.880	0.917	0.950	0.644
FISH DIST + 8 HR	0.895	0.895	0.884	0.930	0.909	0.880	0.908	0.955	0.644
FISH DIST - 4 HR	0.895	0.895	0.899	0.933	0.914	0.882	0.917	0.958	0.644
FISH DIST - 8 HR	0.895	0.895	0.870	0.929	0.904	0.878	0.907	0.947	0.644
FISH DIST + 5 DAY	0.895	0.895	0.903	0.933	0.910	0.881	0.922	0.956	0.639
FISH DIST - 5 DAY	0.897	0.897	0.905	0.935	0.919	0.887	0.925	0.958	0.657
FISH DIST + 10 DAY	0.895	0.895	0.892	0.929	0.902	0.877	0.907	0.950	0.618
FISH DIST - 10 DAY	0.897	0.898	0.906	0.935	0.921	0.894	0.925	0.959	0.682

Table 10. Dam and system survival values for the yearling outmigrant FTOT transport FISHPASS runs.

MPAC FISHPASS SENSITIVITY RUNS

FTOT TRANSPORT SCENARIOS

YEARLING CHINOOK	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN B	0.896	0.898	0.903	0.939	0.951	0.947	0.923	0.960	0.687
RES MORT +20%	0.896	0.898	0.903	0.939	0.951	0.947	0.923	0.960	0.610
RES MORT - 10%	0.896	0.898	0.903	0.939	0.951	0.947	0.921	0.960	0.744
RES MORT + 10%	0.896	0.898	0.903	0.939	0.951	0.947	0.921	0.960	0.643
RES MORT -20%	0.896	0.898	0.903	0.939	0.951	0.947	0.922	0.960	0.779
FISH:SPILL .45:1	0.895	0.898	0.876	0.933	0.949	0.945	0.904	0.960	0.686
FISH:SPILL .75:1	0.896	0.898	0.891	0.932	0.950	0.946	0.921	0.960	0.687
FISH:SPILL 1.5:1	0.896	0.899	0.928	0.941	0.954	0.948	0.952	0.960	0.688
FISH:SPILL 2.35:1	0.896	0.900	0.953	0.954	0.956	0.951	0.958	0.960	0.689
FGE LOW	0.880	0.882	0.901	0.950	0.936	0.932	0.936	0.954	0.531
FGE HIGH	0.918	0.922	0.904	0.965	0.961	0.947	0.947	0.967	0.839
FGE + 25%	0.907	0.911	0.904	0.950	0.971	0.968	0.926	0.973	0.776
FGE + 50%	0.918	0.922	0.905	0.964	0.980	0.980	0.931	0.976	0.841
FGE - 25%	0.885	0.886	0.903	0.920	0.931	0.925	0.916	0.948	0.581
FGE - 50%	0.873	0.873	0.902	0.907	0.912	0.903	0.910	0.936	0.454
TURB MORT = 0%	0.970	0.973	0.992	0.993	0.984	0.985	0.992	0.983	0.763
TURB MORT = 7%	0.936	0.938	0.950	0.971	0.969	0.967	0.961	0.972	0.725
TURB MORT = 24%	0.851	0.854	0.850	0.900	0.932	0.933	0.879	0.947	0.650
TURB MORT = 32%	0.811	0.814	0.803	0.873	0.914	0.903	0.943	0.935	0.623
TRANS MORT = 1%	0.915	0.916	0.903	0.939	0.951	0.947	0.923	0.960	0.713
TRANS MORT = 30%	0.773	0.791	0.903	0.935	0.826	0.947	0.921	0.960	0.512
TRANS MORT = 60%	0.625	0.661	0.903	0.935	0.697	0.947	0.921	0.960	0.304
TRANS MORT = 97%	0.443	0.501	0.903	0.939	0.537	0.947	0.935	0.960	0.048
FISH DIST + 4 HR	0.896	0.898	0.885	0.932	0.949	0.945	0.915	0.953	0.686
FISH DIST + 8 HR	0.896	0.898	0.883	0.931	0.949	0.945	0.906	0.958	0.686
FISH DIST - 4 HR	0.896	0.898	0.898	0.934	0.951	0.946	0.914	0.961	0.687
FISH DIST - 8 HR	0.895	0.898	0.869	0.930	0.948	0.944	0.906	0.950	0.686
FISH DIST + 5 DAY	0.896	0.899	0.903	0.936	0.952	0.947	0.924	0.961	0.686
FISH DIST - 5 DAY	0.895	0.897	0.900	0.934	0.951	0.946	0.917	0.960	0.688
FISH DIST + 10 DAY	0.896	0.902	0.906	0.936	0.954	0.950	0.925	0.961	0.668
FISH DIST - 10 DAY	0.895	0.898	0.890	0.932	0.949	0.945	0.908	0.958	0.683

Table 6. Dam and system survival values for the subyearling outmigrant no transport FISHPASS runs.

NPAC FISHPASS SENSITIVITY RUNS

SUBYEARLING CHINOOK	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN A	0.915	0.915	0.904	0.938	0.915	0.882	0.925	0.957	0.109
RES MORT + 20%	0.915	0.915	0.904	0.938	0.915	0.882	0.925	0.957	0.023
RES MORT - 10%	0.915	0.915	0.904	0.933	0.915	0.882	0.925	0.957	0.203
RES MORT + 10%	0.915	0.915	0.904	0.933	0.915	0.882	0.923	0.957	0.052
RES MORT - 20%	0.915	0.915	0.904	0.938	0.914	0.881	0.925	0.956	0.292
FISH:SPILL .45:1	0.915	0.915	0.877	0.932	0.906	0.879	0.905	0.957	0.101
FISH:SPILL .75:1	0.915	0.915	0.892	0.931	0.911	0.880	0.923	0.957	0.106
FISH:SPILL 1.5:1	0.915	0.915	0.930	0.933	0.923	0.885	0.923	0.957	0.112
FISH:SPILL 2.35:1	0.915	0.915	0.955	0.951	0.930	0.889	0.963	0.957	0.125
FGE LOW	0.893	0.893	0.902	0.946	0.911	0.882	0.922	0.944	0.103
FGE HIGH	0.915	0.915	0.904	0.964	0.940	0.931	0.948	0.958	0.124
FGE + 25%	0.932	0.932	0.905	0.948	0.925	0.888	0.928	0.969	0.118
FGE + 50%	0.948	0.948	0.905	0.963	0.935	0.894	0.932	0.976	0.128
FGE - 25%	0.899	0.899	0.904	0.918	0.905	0.876	0.919	0.944	0.099
FGE - 50%	0.883	0.883	0.903	0.904	0.895	0.869	0.914	0.932	0.091
TURB MORT = 0%	0.990	0.990	0.992	0.993	0.990	0.995	0.991	0.984	0.198
TURB MORT = 7%	0.955	0.955	0.951	0.970	0.955	0.942	0.962	0.971	0.151
TURB MORT = 24%	0.870	0.870	0.852	0.897	0.870	0.814	0.883	0.941	0.073
TURB MORT = 32%	0.830	0.830	0.805	0.969	0.830	0.754	0.848	0.927	0.051

Table 8. Dam and system survival values for steelhea outmigrant no transport FISHPASS runs.

NPAC FISHPASS SENSITIVITY RUNS

STEELHEAD	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN A	0.947	0.947	0.906	0.941	0.956	0.963	0.927	0.963	0.216
RES MORT + 20%	0.947	0.947	0.906	0.941	0.956	0.963	0.927	0.963	0.045
RES MORT - 10%	0.947	0.947	0.906	0.936	0.956	0.963	0.925	0.963	0.403
RES MORT + 10%	0.947	0.947	0.906	0.937	0.956	0.963	0.925	0.963	0.103
RES MORT - 20 %	0.947	0.947	0.906	0.941	0.955	0.963	0.927	0.963	0.331
FISH:SPILL .45:1	0.947	0.947	0.877	0.934	0.952	0.962	0.906	0.963	0.202
FISH:SPILL .75:1	0.947	0.947	0.893	0.933	0.954	0.962	0.925	0.963	0.211
FISH:SPILL 1.5:1	0.947	0.948	0.932	0.937	0.959	0.964	0.925	0.963	0.222
FISH:SPILL 2.35:1	0.948	0.949	0.957	0.955	0.960	0.966	0.965	0.963	0.244
FGE LOW	0.929	0.930	0.903	0.951	0.944	0.940	0.940	0.951	0.203
FGE HIGH	0.947	0.947	0.906	0.965	0.960	0.957	0.949	0.965	0.227
FGE + 25%	0.971	0.971	0.906	0.951	0.975	0.980	0.929	0.975	0.243
FGE + 50%	0.980	0.980	0.907	0.965	0.980	0.980	0.934	0.977	0.254
FGE - 25%	0.924	0.924	0.905	0.922	0.936	0.939	0.920	0.951	0.189
FGE - 50%	0.900	0.901	0.905	0.909	0.917	0.914	0.916	0.939	0.165
TURB MORT = 0%	0.985	0.985	0.991	0.993	0.984	0.993	0.991	0.983	0.311
TURB MORT = 7%	0.967	0.967	0.951	0.971	0.971	0.973	0.962	0.973	0.264
TURB MORT = 24%	0.924	0.925	0.854	0.903	0.939	0.951	0.885	0.951	0.171
TURB MORT = 32%	0.904	0.904	0.808	0.877	0.924	0.941	0.852	0.941	0.139

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Table 4. Dam and system survival values for the yearling outmigrant no transport FISHPASS runs.

NPAC FISHPASS SENSITIVITY RUNS

NO TRANSPORT SCENARIOS

YEARLING CHINOOK	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN A	0.915	0.916	0.903	0.939	0.952	0.946	0.921	0.960	0.199
RES MORT + 20%	0.915	0.916	0.903	0.939	0.952	0.946	0.921	0.960	0.042
RES MORT - 10%	0.915	0.916	0.903	0.935	0.951	0.946	0.919	0.960	0.368
RES MORT + 10%	0.915	0.916	0.903	0.935	0.952	0.946	0.919	0.960	0.095
RES MORT - 20%	0.915	0.916	0.903	0.939	0.951	0.946	0.920	0.960	0.487
FISH:SPILL .45:1	0.915	0.915	0.876	0.933	0.949	0.945	0.903	0.960	0.187
FISH:SPILL .75:1	0.915	0.915	0.891	0.932	0.950	0.945	0.919	0.960	0.194
FISH:SPILL 1.5:1	0.916	0.916	0.927	0.935	0.954	0.947	0.919	0.960	0.204
FISH:SPILL 2.35:1	0.916	0.916	0.952	0.954	0.956	0.949	0.953	0.960	0.223
FGE LOW	0.893	0.894	0.901	0.950	0.936	0.931	0.935	0.954	0.187
FGE HIGH	0.948	0.948	0.903	0.964	0.961	0.946	0.945	0.967	0.229
FGE + 25%	0.932	0.932	0.904	0.949	0.971	0.968	0.924	0.973	0.222
FGE + 50%	0.948	0.948	0.904	0.964	0.980	0.980	0.929	0.976	0.240
FGE - 25%	0.899	0.899	0.902	0.920	0.931	0.924	0.914	0.948	0.176
FGE - 50%	0.883	0.883	0.903	0.907	0.912	0.902	0.910	0.936	0.157
TURB MORT = 0%	0.990	0.990	0.992	0.993	0.984	0.985	0.992	0.983	0.321
TURB MORT = 7%	0.955	0.955	0.950	0.971	0.969	0.967	0.960	0.972	0.259
TURB MORT = 24%	0.871	0.871	0.850	0.900	0.932	0.922	0.876	0.947	0.145
TURB MORT = 32%	0.831	0.831	0.802	0.873	0.914	0.902	0.839	0.935	0.110

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL
BOISE 83720

JIM JONES
ATTORNEY GENERAL

TELEPHONE
334-2400

January 19, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

Enclosed are replacement pages for the Office of the Attorney General's Comments on the Draft Environmental Impact on Intertie Development and Use dated January 15, 1987. The replacement pages correct typographical errors in the original. Thank you for your assistance in this matter.

Very truly yours,

William S. Whelan
Deputy Attorney General
Natural Resources Division

WSW/paw
Enclosures (10 pages)

ADDRESS ALL COMMUNICATIONS
TO THE COMMISSION
CALIFORNIA STATE BUILDING
SAN FRANCISCO, CA 94102
TELEPHONE (415) 557-

2403

Public Utilities Commission

STATE OF CALIFORNIA

January 15, 1987

FILE NO

RECEIVED BY BPA
PUBLIC INVOLVEMENT
LOG #: 71E-1-73
RECEIPT DATE:
JAN 16 1987
AREA: DISTRICT

Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
1002 N.E. Holladay
Portland, OR 97232

Re: Comments on the Intertie Development and Use Draft Environmental Impact Statement

Dear Ms. Geiger:

The staff of the California Public Utilities Commission ("CPUC") submits the attached comments regarding the Intertie Development and Use Draft Environmental Impact Statement ("IDU DEIS").

If you have any questions concerning these comments, please contact me at (415) 557-2403.

Sincerely,

J. Calvin Simpson/jz

J. Calvin Simpson
Assistant General Counsel

ATTACHMENT

COMMENTS OF THE STAFF OF THE

CALIFORNIA PUBLIC UTILITIES COMMISSION

ON THE

BONNEVILLE POWER ADMINISTRATION

INTERTIE DEVELOPMENT AND USE

DRAFT ENVIRONMENTAL IMPACT STATEMENT

(BPA IDU DEIS)

It is desirable that all parties and agencies reviewing the proposed expansions to the Pacific Interties prevent complications that could arise from avoidable inconsistencies between their respective analyses. The Bonneville Power Administration (BPA) Intertie Development and Use Environmental Impact Statement (IDU EIS) provides a unique opportunity for a consistent set of data to be developed and used. The purpose of an EIS is to be a full disclosure document to the public of the facts, analysis and judgment which produces conclusions. The comments of the staff of the California Public Utilities Commission (CPUC) are directed to further this aim.

In addition, the BPA proposes that the IDU EIS be the document which analyzes the impacts of the Long Term Intertie Access Policy (LTIAP) and alternative LTIAP options. The comments of the CPUC staff address this analysis.

GENERAL COMMENTS

1. Variables for final studies

The CPUC staff supports what we understand to be BPA's intent to use the most up-to-date and current data for the final economic studies on the transmission expansion projects and revenue effects of the different access policy options:

a. The most current oil/gas price forecasts must be used, not one developed before the major change in oil/gas prices in 1986.

b. The entire cost of the project to be undertaken must be included in the analysis. The California-Oregon Transmission Project (COTP) costs include the costs of the Los Banos-Gates line (about $100 million), the costs of the associated facilities in California to deliver the electricity to the COTP participants (about $200 million), and the cost of capitalized interest (i.e., AFUDC).

2. Detail in the final studies

The level of detail in the studies must be such as needed to support the conclusions.

The CPUC staff requested details on the input assumptions, calculations, derivations and supporting documentation behind BPA's estimates of the economics of the transmission expansions and the revenue effects in the Pacific Northwest (PNW). This request included but was not limited to the costs of the projects, gross and net benefits, assumptions on the avoided energy costs to California, revenue effects in the PNW, BPA rate assumptions used, estimated non-federal rate assumptions used, support for the development of 3150 MW as the maximum capacity sale, support for the limitation of 2550 MW as the capacity sales over the existing lines, and development of sales estimates by year. Some useful information was provided, but noteable absent was data on the specfic BPA and PNW rates used, and support for the 2550 and 3150 MW limits. Also, the data does not allow one, for example, to determine if the calculation of the benefits of the PSW capital deferrals was done by annualizing the gas turbine capacity cost on a nominal or real carrying charge basis, with the resultant correct or incorrect effect on the calculation of the net present value of the benefits.

The IDU EIS should contain sufficient detail to allow reviewers to understand the data used and in turn adopt it for themselves wherever possible. This would be most helpful if contained in a technical appendix.

3. Support for conclusions

The IDU DEIS finds that BPA wholesale power rates change negligibly with the transmission projects, with nonfirm allocation options, or long-term firm contracts. One objective of the LTIAP is to materially affect BPA revenues. If the various LTIAP options do not materially affect BPA revenues, the LTIAP chosen is unsupported.

4. PNW spill

The BPA first option for nonfirm energy allocation results in less spill of PNW hydro resources and less coal consumption

in the PNW. The other options result in more PNW spill and more coal consumption. The advantages of increased PNW spill/coal consumption should be quantified relative to the advantages of less PNW spill/coal consumption, to support BPA's choice to adopt a policy of spilling more hydro resources and burning more coal.

5. Alternatives

The IDU DEIS analyses 7 decision packages. Notably absent is a decision package which mirrors the use of the interties over the first 20 years. That use included long term contracts for firm service when mutually beneficial to both regions (e.g., 20 year capacity/energy exchange contracts; multi-year firm capacity and/or firm energy contracts), and access for comsummated transactions when they occurred, limited only by the terms of the Exportable Energy Agreement (EEA). This alternative deserves analysis since it reflects the existing use on the interties.

Another alternative that should be analyzed is the one wherein the intertie access policy in no way inhibits competition. This alternative decision package should not include the EEA, nor any comparable replacement, and should analyze the effects of transactions made only when mutually agreed to between the parties, without prorata limits to access and without restrictions on firm transactions, as proposed by BPA in the LTIAP.

6. Support for capacity sales

The IDU DEIS contains the assumption that capacity sales will be limited to 2550 MW with the existing intertie size, and can be increased to 3150 if the interties are expanded (with either the DC Upgrade or the COTP). Capacity sales have in the recent past been in the range of 3100 MW with the capacity of the interties at 1000 MW less than assumed in the DEIS (i.e., 4200 MW rather than 5200 MW). The final EIS should make clear why the limitation exists of 2550 MW on the existing lines, why the 600 MW generic sale can occur only with a transmission expansion, and why the capacity sales are limited to a total of 3150 MW.

SPECIFIC COMMENTS

1. Congressional Intent (Summary Section D, page S-1; DEIS Section 1.4.2.1, page 1-2)

The DEIS states that the Congressional intent in authorizing the Intertie was, among other things, to increase BPA revenues. This is incorrect and contributes to an analysis which does not support the conclusions reached.

The BPA is a non-profit federal agency with a revenue requirement. BPA cannot design rates which are intended to collect a "profit", or revenues in excess of its forecast revenue requirement. Revenues from sales to California are used to lower rates within the PNW (see, for a limited example within the DEIS, pages A-14 to 15, section A.7.6, which describes how nonfirm energy reveunes are used to reduce rates for loads served from FBS and New Resources; for more detail see BPA rate design exhibits in BPA rate proceedings).

BPA response to California Parties Data Request No. 10 in FERC Docket No. EF81-2011-003 provided the "Justification for Appropriation (1964)" for the Pacific Interties. The justifications did not include increasing BPA revenues.

BPA cannot design revenues for sales over the Intertie to "increase revenues" in excess of its revenue requirement. To the extent the revenues from sales over the Interties increase, the revenues from sales within the PNW must decrease.

The DEIS should state the correct relationship of revenues from its various customers and do the correct analysis of the effect of the different options on its rates. To the extent lower rates within the PNW (because of higher rates to the PSW) allow growth within the PNW (which would not occur at higher BPA/PNW rates), the growth inducing effects of the LTIAP options deserve analysis.

2. Size of the interties (Summary Section E, page S-2; DEIS Section 1.4.2.2, page 1-5)

Here and throughout the document the BPA refers to the size of the existing Pacific Interties as being 5200 MW, with the two existing AC lines being rated at 3200 MW. Pacific Gas and Electric Company informs the CPUC that the two existing AC lines are rated at 2800 MW. PG&E expects to continue efforts to increase the rating to 3200 MW in 1987, but problems with the 400 MW increase have occurred and the increase in not certain. It would be more accurate to complete the analysis based on the current situation and not speculation about the success of the potential 400 MW increase. At least the assumptions behind the 400 MW increase, if it is used, should be made clear.

3. Price effect of the "Pre-IAP" option (Summary Section E, page S-3; DEIS Section 2.2.1, page 2-5)

The "Pre-IAP' option is dismissed because this option depresses the prices received by PNW sellers, particularly BPA. The secondary revenue to the PNW under this option is $151 million more (3.0%) than under the proposed policy at the existing capacity of the interties (page 2-13). The conclusion does not seem to be supported by the data, and there is no data in the DEIS which supports the conclusion that BPA is especially hurt by the price effect.

4. Deferral of gas turbines and refurbishments in California (Summary Section F, page S-5; DEIS Section 4.8.2.2, page 4.8-3)

The DEIS analysis is based on California benefits in part being derived from the deferral of gas turbines or refurbishments. This is not the correct basis for the analysis.

First, refurbishments are cited as an alternative studied, but actually only gas turbines are used in the study (page 4.8-3) as a "proxy for capital additions". Exhibits in proceedings at the CPUC find refurbishments to cost less than gas turbines by between 50 and 66% (refurbishments between $200 to $250 per kilowatt, gas turbines between $500 and $600 per kilowatt). To the extent only gas turbines are used in the study, the PSW capital deferral benefits are overstated.

Second, gas turbines are not used in Pacific Gas and Electric Company and Southern California Edison Company resource plans per se. These California utilities have no gas turbines in their resource plans for the next 10 years (to 1996) and only generic base, intermediate and peaking resources past 10 years. The majority of gas turbines used to compare against COTP are in the resource plans of the California municipal utilities. A thorough analysis must consider, however, that new wholesale power requirements rates may be developed which will delete the gas turbines from the municipal utilties resource plans.

Furthermore, the California Energy Commission (CEC) finds in their Electricity Report 6 that California does not need capacity until the late 1990s. BPA's analysis assumes a 600 MW capacity sale attributable to the COTP beginning in 1993 (page 4.8-3). This is inconsistent with California's needs and does not result in the correct calculation of the benefits of COTP.

The CEC is developing a need test which requires that a municipal utility have a standard offer available to qualifying facilities (QFs) for at least one year before the CEC will site a municipal utility requested power plant (such as a gas turbine). Federal law, in fact, requires that municipal utilities have standard offers for QFs under most conditions. Given the cost of COTP and the cost of the purchased power over COTP, it is not inconceivable that there will be sufficient QFs to meet the municipal utilities needs without building COTP. The BPA IDU FEIS should contain this possibility, which includes the

circumstance of no additonal firm PNW sales to California.

In addition, California parties will be exploring a less costly alternative to supply the same benefits as the COTP project through a "mixed strategy" approach. This approach would combine a series of measures (such as some Qualifying Facilities, some mid-range and peaking plants, some conservation and load management, some wholesale power requirements rate adjustments, other transmission lines, and some additions to enhance the capacity of the existing interties with phase shifters, series compensation and such). The FEIS should recognize California's ability to use a mixed supply of options to accomplish the same goals at less cost.

Finally, the energy benefit of the capacity sales is overstated in the DEIS (see comment 15 below). The Final EIS should correct this calculation or explain why it is reasonable.

In summary, the DEIS should refer more directly to what is actually in the resource plans, along with the proper costs for refurbishments and the three generic plants. It should account for the revised requirements rates alternative to gas turbines to more properly measure the benefit for avoided capacity. Furthermore, to properly calculate the benefit of transmission expansion, it should more correctly reflect California's capacity needs, with no new capacity needed until the late 1990s. It should reflect the QF alternative and the effect on the benefits if QFs are developed. It should recognize the cost of a mixed supply of options as a less costly alternative than gas turbines as the measure of the benefit to the PSW of COTP. Finally, the energy benefit of capacity sales should be corrected.

5. Effect on BPA of the Exportable Energy Agreement (DEIS Section 1.4.4.2, page 1-8)

It is claimed that California buyers would purchase from PNW sellers other than BPA in heavy runoff months and force BPA into the Exportable Energy Agreement (EEA). This resulted in BPA selling its power at low rates, leading to an unreasonable cost burden on BPA's PNW ratepayers. This claim is used to support the rejection of the pre-IAP option. The claim is incorrect and does not support the rejection.

The use of the EEA does not rest on whether California buys too much from nonfederal sellers. The EEA becomes effective when the PNW is in a spill or imminent spill condition and there is more energy to be marketed at BPA's rate than there is capacity on the Intertie. The BPA rate used for the EEA was the BPA spill rate until August 1984, when BPA began using the standard rate. The current EEA rate does not result in BPA selling its power at low rates, nor an unreasonable cost burden to PNW ratepayers. The effect without the EEA is not studied in the DEIS.

6. CPUC decision on the IOUs request for a CPCN (DEIS Section 2.1.3, page 2-3)

The DEIS notes that the CPUC is expected to release a decision on the project by January 1988, given the WAPA final Record of Decision in July 1987. California law provides for the CPUC decision within 6 months of the final Environmental Impact Report or six months of the receipt of a complete application by the Investor Owned Utilities, whichever is later. There is the opportunity for a one-time three month extension. Assuming the IOUs file complete applications before July 1987, and the TANC/WAPA final EIR is July 1987, the CPUC decision is expected between January 1988 and April 1988.

7. COTP cost (DEIS Section 2.1.3, page 2-3)

It is noted that the COTP capital cost is estimated to be $290 million in 1986 dollars. The DEIS does not reveal the components of this number. Discussions with TANC and the IOUs in California over the last year have included this number. The CPUC staff has pointed out to TANC that this number is faulty because it does not include the cost of the facilities south of Tesla, the associated facilities to deliver the electricity to TANC members, nor does it include the cost of capitalized interest (allowance for funds used during construction). These costs must be included to properly reflect the costs of the project being considered.

The issue of what costs to include turns on the definition of the project. The definition of the project includes all facilities which will be built as a result of the contemplated action. The Los Banos-Gates line would not be built if not for the COTP, for example, and becomes a part of the project. Similarly with the Associated Facitlities referenced in the Memorandum of Understanding for the COTP.

It is unclear elsehere in the DEIS what costs are included (e.g., $676 million in 1986 dollars, page 4.8-4). All costs of the project(s) under consideration must be included for a correct analysis. Furthermore, all costs must be included to provide consistency with the analysis the CPUC must perform under the California Environmental Quality Act, in which all costs of the project must be included, not simply a subset. The the Final EIS should include all costs in its analysis, or at least make clear what costs are included (e.g., south of Tesla, associated facilities, interest; how much is estimated to be the cost within the PNW and the PSW; how much for COTP versus whatever other "subprojects" aggregate to the whole third AC line cost of $676 million).

8. PNW spill (DEIS Section 2.2.1.6, page 2-6)

It is observed in the DEIS that the BPA first option minimizes the amount of spilling of PNW hydroelectric energy, and minimizes the amount of coal burned for sale to California. The preferred option results in more spilling of hydro and more burning of coal.

The final EIS should better explain how burning more coal with more coal air pollution while spilling more water is a better option than an option which allows buyers and sellers to agree without administrative direction from BPA over allocations (e.g., IAP) or price (e.g., EEA). Under the "free market" alternative, all the hydro would be sold (assuming PNW sellers are willing to sell rather than spill the energy) before any thermal is consumed for sales to California. The advantages of spilling more and burning more coal should be quantified relative to spilling less and burning less coal. Along with being discussed in other parts of the Final EIS, this should be addressed as part of a fully competitive decision package (see comment 11 below).

9. Pre-IAP revenue effects (DEIS Section 2.2.1.6, page 2-7)

Both Near Term and BPA first options increase BPA revenues compared to the Pre-IAP option, according to the DEIS. The data does not seem to support this conclusion, however (see item 3 above).

10. Firm exports (DEIS Section 2.2.2, page 2-7; Section 2.3.1, page 2-10)

The DEIS says that the Intertie has traditionally been used for "as available" sales. Under the Near Term IAP firm contracts were allowed for only the duration of the Near Term IAP. The DEIS fails to recognize that over 2000 MW of firm capacity sales were made over the Interties for nearly 20 years, and in 1984 there were contracts for 3111 MW of firm capacity.

The DEIS fails to analyze the alternative which was in effect for nearly 20 years: firm contracts are allowed on the intertie as was done from 1968 to 1984 (and "grandfathered" under the Near Term Intertie Access Policy until 1987). The No Action alternative is protrayed as (page 2-10):

> ...the Near Term IAP would expire, and conditions for use of the Intertie would probably revert to the practices before BPA implemented the Interim IAP in September 1984.
>
> ...there would be no new long-term power or capacity contracts by PNW utilities.

This conflicts, however, with the actual experience of the operation of the Interties. BPA had long term firm capacity/energy exchange contracts for nearly 20 years totaling in excess of 1200 MW. BPA sold 600 MW of firm contract capacity to PG&E under Schedule CF, and other long term firm contracts bringing the total BPA commitments to nearly 2000 MW. Nonfederal sellers had long term contracts for firm sales of 1160 MW. Most of these contracts were "grandfathered" in the Near Term IAP, bringing the total PNW long term firm sales to California to 3111 MW in 1984. Appendix A, Table A.3, in fact, list 2300 MW of existing capacity sales which were modeled in SAM.

The No Action alternative does not accurately portray the condition prior to the Near Term IAP in 1984. The correct No Action alternative should be used in the Final EIS. The Final EIS should correctly portray the condition wherein 3000 plus megawatts of long term firm contracts are possible as under the intertie from 1968 to 1984, or explain why the nearly 20 years of actual experience does not represent an option which is available in the next 20 years. If it is not done in the No Action alternative, another alternative should be created to mirror the actual use of the interties for nearly 20 years.

11. Decision Packages (DEIS Section 2.3.2, page 2-10)

The decision packages analyzed in the DEIS combine the effects of different LTIAP options and different expansions to the Interties. The combined analysis does not allow a clear understanding of one or the other effect. The Final EIS should analyze the LTIAP options independently of the intertie expansions if the EIS is to support the selection of an LTIAP, and the choice of LTIAP is truly independent of intertie expansion choices. Similarly, the Final EIS should analyze the intertie expansions independently of the LTIAP options, if in fact expansion of the interties is an independent choice from the choice of an LTIAP.

To the extent the combined analysis holds one variable constant (e.g., transmission expansions), the PSW secondary revenues in Table 2.1, page 2-13, are all essentially the same in decision packages 4 through 7 (with the same intertie capacity of 7900 MW but the variation being different LTIAPs). It appears that the only revenue effects come from transmission expansions, not LTIAP options. To the extent secondary revenues is a criterion in the selection of the LTIAP, the analysis does not support the LTIAP selected at the maximum intertie expansion studied. Independent analysis of each choice would help the reviewer understand the impact of each choice, without the potentially interactive effect of other options being treated in the same analysis.

12. Pacific Northwest Secondary Revenue (DEIS Section 2.4, page 2-13)

The DEIS analyzes the effect on secondary revenues to the PNW and to British Columbia of the several decision packages. The FEIS must reveal the input assumption which underlie this analysis. If the input assumptions are as they seem (based on trying to determine them from the results), as explained below, the analysis does not support the conclusions, is based on incorrect assumptions given California actions, and must be modified for the Final EIS.

It appears that the current analysis assumes the same sales despite LTIAP selected, with the revenues varying only as a result of transmission expansions. This is not a correct assumption, and does not allow the testing of the effect of LTIAPs. If the assumption is constant that the PNW will receive 75% of the PSW decremental cost or the BPA rate, for example, and the sales do not vary by LTIAP selected, the DEIS does not at all measure the effect of different LTIAPs on PNW revenues.

It is quite reasonable to expect that the secondary sales to the PSW will reduce over time with LTIAPs which result in the PNW receiving higher prices, since the PSW will develop its own resources rather than pay prices essentially the same as the alternative prices to the PNW. The effect is that an LTIAP which results in the benefits being equitably shared will result in more PNW sales to the PSW than an LTIAP which results in more of the benefits going to the PNW. This proposition was presented to the CEC in Electricity Report 6 and essentially adopted, with different PNW sales assumptions based on the expectation of the cost to California of PNW energy. The FEIS should recognize and analyze this effect.

Furthermore, the LTIAP selected is intended to increase BPA's ability to repay the U.S. Treasury. The effect on BPA revenues of different IAP options impacting long term sales cannot be fully understood unless BPA reveals and analyzes its assumptions about rates for capacity, firm energy and long term firm sales, as well as secondary energy.

In addition, the LTIAP selected will presumably have an effect on the prices charged to the PSW. If not, the DEIS does not test any LTIAP options which affect the decision criterion of "enhancing BPA's ability to repay the U.S. Treasury". If that is correct, the DEIS does not even attempt to meet its stated objective of testing different LTIAPs.

13. Economic Assumptions (DEIS Section 4.8.2.1.2, page 4.8-2)

The fall 1985 gas price projections by DRI should be replaced with current fossil fuel price projections for the final study.

The constant inflation rate of 6% is high by standards in 1986. A more current inflation rate should be used if this variable turns out to have much of an effect on the results.

14. Results (DEIS Section 4.8.2.2, pages 4.8-2 to -4)

The results are nicely summarized in the DEIS. It would greatly help reviewers if the Final EIS contains a technical appendix (more detailed than Appendix A) which lists in more detail the inputs, assumptions, major outputs from the models, formulas for major items in the models, and such, to allow informed observers to do simple analysis using the major items from BPA's work to duplicate that work. This should include computer printouts of inputs and outputs of models, for example. This will allow the use of consistent data and analysis whenever and wherever possible between all the parties and agencies reviewing expansions to the interties and resource development in the Western United States. The CPUC staff data request of December 10, 1986, while not a comprehensive list of all the data needed to support the Final EIS (and assist the reviewers and users of the Final EIS in making consistent analysis wherever possible), does identify the type of information which is essential.

15. On-Peak displacement (DEIS Section 4.8.2.2, page 4.8-3)

The on to off peak differential is assumed to be 65% for BPA's analysis (33/20 mills/kWh). The differential, however, is much less.

CPUC staff models forecast that the differential will decrease over time as the oil/gas plants that are used at the margin become more efficient (the less efficient plants are retired or refurbished), less oil/gas plants are used at the margin overall, and more non-oil/gas resources are used on the margin. The actual differential is not 13 mills (65%). For the months in 1986 with relevent data, the differential was 3.1 mills/kWh, or 20%, for one of California's major utilities which is expected to have the largest differential.

Furthermore, to the extent the IAP works to keep the PNW rates high relative to the PSW decremental variable operating cost, and purchases of PNW nonfirm energy are used for the payback in the future like in the past, the differential is far less than 13 mills and 65%. Similarly, prices of Southwest sellers follow the prices of the PNW sellers, and keep the differential low even under the assumption that purchases from the Southwest are used for the payback. Southwest prices increased, for example, at the same time as PNW prices increased following the implementation the the Interim Near Term Intertie Access Policy, even though no cost increases in the Southwest occurred simultaneously. Therefore, the assumption of the differential needs to be reassessed, given that the actual differential is approximately 3 mills (20%), and the prices of PNW and SW energy used for payback (if assumed in the analysis) will stay high relative to the PSW decremental cost if the LTIAP is chosen which accomplishes high prices.

16. Additional benefits (DEIS Section 4.8.2.2, page 4.8-3)

Additional unquantified benefits are cited in the DEIS, such as greater access by the PNW to markets in California that have not previously been accessible, and lower costs of purchased power for many California public utililties participating in COTP. This is incorrect and the presentation should be balanced to include the full effect.

All of California has essentially been available to PNW sellers before. Utilities not having direct access to the PNW are typically part of the aggregrate demand of the utilities who do have access, and receive a prorata share of the benefits from coordination transactions with the PNW. Furthermore, when the intertie is unused by the owners, it is made available to nonowners.

If the benefits to California from coordination transactions with the maximum intertie expansion are "X", they cannot be increased by the ownership pattern for the Interties in California. Therefore, if some public utilities will benefit due to "substantially" lower costs, it will be at the expense of other public and private utilties who will have to charge their ratepayers higher costs. The Final EIS should balance the presentation to include the full effect. If BPA believes this is not true, the Final EIS should contain some evidence why this is not so.

17. SAM treatment of PNW as a single-owner system (Appendix A, Section A.1, page A-1)

SAM treats the PNW as a single-owner system. It is unclear how the analysis can be said to then tell the revenue effect on the BPA versus nonfederal utilities of different nonfirm allocation methods (e.g., pro rata, BPA first) and other IAP policy options. To the extent the EIS is used to select the LTIAP which has the best revenue effect on the BPA, it is unclear how SAM allows this conclusion. The FEIS should clarify this analysis.

18. PSW demand at 75% of PSW decremental cost (Appendix A, Section A.1.2, page A-2)

A PSW demand curve is created in (or for) SAM based on assuming the PSW will pay 75% of the decremental cost of the resources the economy energy displaces. This is not consistent with experience. The model should better reflect actual experience.

The PNW has been charging the PSW 95% of the PSW decremental cost in 1986 (PNW rate of 17.5 mills/kWh; PSW decremental cost of 18.1 mills/kWh based on $1.90/mmBTU, 10000 BTU/kWh decremental heat rate at generation near the load center, with a loss adjustment of 5% for the equivalent price/cost at the

Oregon border). As the California Parties indicated in the Brief to FERC dated July 18, 1986 (FERC Docket Nos. EF85-2011-003 and EF85-2021-003) the BPA attempts to price its nonfirm energy within 2 mills/kWh of the PSW decremental variable operating cost. Under the EEA and IAP, other PNW sellers either cannot sell below BPA's rate (under the EEA) or have no incentive to price below BPA (under the IAP), resulting in the composite PNW rates being within 2 mills.

A margin of 2 mills below the PSW decremental variable operating cost would require the PSW decremental cost to be 8 mills for the PNW rate to be a ratio of 75% of the PSW decremental cost. PSW decremental costs are not on average that low. As the decremental variable operating cost increases, the ratio increases with a constant margin of 2 mills. At a decremental cost of 20 mills, the ratio is 90%, not 75%, with the 2 mill margin.

19. Modeling of NTIAP (Appendix A, Section A.1.4, page A-2)

Appendix A contains a good description of how the three conditions work in the NTIAP but do not describe how they are modeled. A better description of how the model assess the nonfirm options would help reader understanding in the Final EIS.

20. 1985 forecast (Appendix A, Section A.1.4.1, page A-3)

The Draft IDU EIS relies on BPA's 1985 load forecast. It is assumed that BPA will use its most recent 1986 forecast for the final EIS, and the CPUC staff supports the use of the more recent forecast.

21. PNW load/resource balance (Appendix A, Section A.1.4.1, page A-3)

The Draft EIS finds that the PNW has firm surplus energy through 1996-1997, and is in load/resource balance beginning in 1997, based on the 1985 load/resource forecast. The BPA "1986 Pacific Northwest Loads and Resources, Executive Summary", dated December 1986, shows that the firm surplus is calculated both before and after service to the DSIs (lines 35 and 36, page 18). Since the DSIs have priority of service over sales out of the region (to California), it would be more useful to the reviewer of the EIS to have the firm energy surplus available for California noted, not the firm energy surplus before sales to the DSIs. BPA should at least clarify that the DSIs have first priority to the firm energy surplus for the purposes of serving the top quartile if the DSI's choose. To the extent the analysis includes this energy for sale to California which will be used by the DSI's, the FEIS should correct for

this use, or explain why it is available to sell to California.

22. Oil/gas price forecasts, BPA rate forecasts (Appendix A, Section A.1.4.3, page A-3)

It would help the reader of the FEIS if forecast data upon which the analysis is based is presented in the FEIS or a technical appendix. The data used in the DEIS was requested by the CPUC staff and some of it was received. It would help readers and users of the final EIS if this information is contained directly in the final document and/or technical appendix, without requiring a data request to BPA to seek the information upon which the final analysis is based.

23. Rate impacts of nonfirm energy options (Appendix A, Section A.7, page A-10)

The Supply Pricing Model is used to derive estimates of the rate impacts of nonfirm energy allocation options. The results of this analysis should be contained in the final EIS. The lack of data on the SPM, its inputs and outputs, and the use made by BPA prevent any more informed comments at this time, other than the observation that BPA finds that the various decision packages have little effect on BPA revenues and rates (page S-6). If this is true, it is unclear how the LTIAP can be justified to meet the objective of enhancing BPA's ability to repay the U.S. Treasury.

Department of Water and Power the City of Los Angeles

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Mayor

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DANIEL W. WATERS, *Assistant General Manager - External Affairs*
NORMAN J. POWERS, *Chief Financial Officer*

January 15, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

Bonneville Power Administration (BPA)
Intertie Development and Use Draft
Environmental Impact Statement (IDU-DEIS)

The Department of Water and Power of the City of Los Angeles (Los Angeles) submits the following comments in response to BPA's request for comment, dated October 22, 1986, on both Volume One and Volume Two: Proposed Long Term Intertie Access Policy (LTIAP), of the IDU-DEIS.

Los Angeles has actively participated in all phases of the Public Involvement Process since the publication of the proposed Near Term Intertie Access Policy (NTIAP) discussion paper in the Federal Register on February 15, 1984. To the extent the proposed LTIAP simply carries forward provisions of the now current NTIAP and its predecessor, the interim NTIAP, Los Angeles reasserts its previous comments.

ASSURED DELIVERY

As defined in the LTIAP, assured delivery, once granted, is interruptible only as a result of uncontrollable forces or by a determination of BPA pursuant to specified procedures relating to fish and wildlife resources. Los Angeles commends BPA for its recognition that long-term power transactions between the Pacific Northwest (PNW) and California are possible only when necessary transmission service is guaranteed for the life of the transaction.

It is suggested, however, that BPA attempt to establish a remedy for noncompliance with the provisions of the LTIAP other than a "refusal to accept schedules" as set forth in Subsection I(2)(b)(2). A long-term power purchase is, in a

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practical sense, a resource acquisition. Accordingly, the value of each potential purchase will be compared to a variety of alternatives which include other possible purchases and, of course, the construction of new resources. The existence of a third-party action which has the power to arbitrarily impact the firmness of any purchase will certainly diminish the value of that purchase in relation to the other alternatives.

On page S-7 of the IDU-DEIS, BPA concludes that long-term firm contracts are expected to provide significant benefits to California through deferral of capital spending. BPA's policies, however, tend to discourage, rather than promote, such agreements. In the future, California utilities must provide for load growth and replacement of aging generating facilities. In the absence of acceptable long-term firm contracts, utilities will be forced to construct new resources.

Another important consideration in determining the relative worth of a proposed purchase is the buyer's estimate of how the completed contract will be evaluated for "firmness". Even if the purchase is superior to the next best alternative, it may not be chosen if the purchaser has reason to believe that it will not be reviewed in a timely manner or that the review may result in substantial modifications to negotiated terms and conditions. Under the LTIAP, BPA is not simply acting as a provider of transmission service, but is additionally assuming a quasi-regulatory role. By granting itself the power to review all aspects of any contract which requires intertie transmission service, BPA places itself in the unique position of not only being an aggressive competitor for sales to California, but also being able to directly impact the ability of others to compete for the same market.

In establishing a sixty-day review period for requests for assured delivery, BPA has taken a positive step toward mitigating the potential mischief which could result from intemperate exercise of the LTIAP's contract review procedures. It is nonetheless obvious that this single action is not sufficient to assure that submitted contracts will be either objectively evaluated or that the evaluation will, in fact, be completed in a timely manner. To provide such assurance, two additional changes are required. The first is an additional limitation on the maximum time permitted for re-review of a contract which has been rejected. Halving the maximum time allowed for successive reviews will not only help to ensure that the initial evaluation is sufficiently comprehensive, but would also protect a competing sale from the very real possibility of being subjected to an endless series of sixty-day reviews. The second necessary requirement is a list of objective standards by which each submitted contract will be evaluated. By only stating broad guidelines to direct the evaluation process, BPA not only adds substantial uncertainty to negotiations between PNW and

California utilities, thereby discouraging such negotiations, but also creates another opportunity for BPA to unfairly compete for a given transaction. Because it is impossible to provide hard and fast rules to cover every conceivable contractual arrangement, it is recognized that BPA must design some flexibility into the standards for granting assured delivery. The need for flexibility should not, however, be interpreted to mean that the standards themselves cannot be specific and objective. At minimum, the standards must spell out clearly those arrangements which have such a low probability of qualifying for assured delivery that their inclusion in a submittal would certainly result in rejection.

RESERVED CAPACITY

In an interesting departure from current practice, BPA proposes to reserve intertie capacity sufficient to transmit the full amount of BPA's surplus firm power. At this time, BPA draws a distinction between assured delivery, the mechanism used to effect firm transactions, and the formula allocation procedure used to effect sales of nonfirm energy. Currently, all intertie capacity is available for formula allocations until such time as a qualifying firm transaction is actually in effect. At that time, sufficient capacity is reserved to serve that transaction. Although BPA's qualifying criteria for determining the "firmness" of a given transaction are vague and subjective, the final distinction between the categories of delivery is rather well defined.

BPA's proposal to prospectively reserve sufficient capacity to market the full amount of its firm surplus tends to blur the distinction between firm and nonfirm transactions thereby adding another layer of uncertainty into the PNW/California energy market. Currently, BPA markets a portion of its firm surplus energy on a day-to-day basis under the formula allocation procedures. Although this "daily" or "hourly" firm surplus energy is, from the buyer's perspective, virtually identical to nonfirm energy, and therefore inappropriately priced as a firm product, its marketing under BPA's formula allocation is at least consistent with the letter of the NTIAP.

Due to the lack of a fully developed methodology for computing the Exhibit B surplus and the absense of illustrative examples of allocations under conditions one and two, it is difficult to completely foresee the impact of this change. It is almost certain, however, that moving large amounts of BPA's firm surplus into the assured delivery category will substantially decrease the amount of intertie capacity available to both BPA and the PNW for sales of nonfirm energy.

Treatment of Section 9(i)(3) Priority Resources

Although Los Angeles has no direct interest in BPA's interpretation of Section 9(i)(3) of the regional act, BPA's treatment of Section 9(i)(3) priority resources in the LTIAP does deserve comment. As previously mentioned in public comment sessions, Los Angeles is of the opinion that BPA must design its policies to conform with its statutory directives.

Air Quality

On page S-6, BPA concludes that "in California, increases in intertie capacity would generally reduce air pollution in the region as a whole". It should be recognized that simply increasing transfer capability between regions will not, in itself, change air quality levels one way or another. Pricing of PNW power, BPA rate predictability and reasonableness, the ability to negotiate long-term power contracts with the PNW and other alternate sources, all effect the manner in which additional intertie capacity will be used. Reasonable assumptions regarding patterns of use are necessary in order to achieve any accuracy in evaluating the environmental consequences of intertie expansion.

The DEIS fails to take into account the probable effect of the LTIAP and BPA's ratemaking policies on the California market for PNW power. The assumption that intertie capacity is synonymous with intertie utilization has not been valid since implementation of the interim NTIAP in September 1984.

Thank you for the opportunity to comment. Los Angeles appreciates your consideration of our concerns.

Sincerely,

DAVID J. MAHONEY
Assistant Engineer
of System Development

PACIFIC GAS AND ELECTRIC COMPANY

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January 14, 1986

Donna L. Geiger
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Re: Proposed Long Term Intertie Access Policy and Draft Intertie Development and Use Environmental Impact Statement

Dear Ms. Geiger:

In response to your October 1986 notice, Pacific Gas and Electric Company (PGandE) submits the following comments on the Bonneville Power Administration (BPA) proposed Long Term Intertie Access Policy (LTIAP) and Intertie Development and Use Draft Environmental Impact Statement (IDU DEIS or DEIS).

I. The LTIAP

Faced with the challenging task of rationalizing competing demands for use of BPA's share of the Pacific Intertie, BPA would use the LTIAP to move considerably further along the course BPA has already charted with its Near-Term IAP. The LTIAP would far more pervasively replace competition in the West Coast bulk power market with an administrative market allocation scheme conducted solely by BPA, for virtually all transactions among California, the Pacific Northwest (PNW) and Canada.

The LTIAP is inappropriate, harmful to PGandE and other California utilities and their customers, economically unjustified, and contrary to both statutory authority and congressional intent. Assuming equal quantities of energy purchased, PGandE estimates the LTIAP would cost its

ratepayers approximately $300 million over the period 1987 through 1996 as a result of artificially inflated energy prices and prohibited power exchanges. In addition, important benefits to utilities in both California and the PNW will be lost if the LTIAP renders the proposed COTP/3d AC intertie uneconomic. The IDU DEIS, presented to evaluate both Intertie access policy alternatives and Intertie expansion proposals, does not support the justification offered by BPA for the LTIAP. In addition, the DEIS contains a number of flaws and inaccuracies which need revision before it can serve as the basis for a final EIS consistent with the National Environmental Policy Act (NEPA).

PGandE has submitted comments at every opportunity in BPA's Near-Term and Long Term IAP development processes. PGandE's review reveals that virtually all of our previous comments still apply to the LTIAP and the IDU DEIS. PGandE specifically incorporates by reference its letters to BPA on this subject dated April 3, 1986, January 31, 1986, April 11, 1985, May 31, 1985, March 15, 1985, August 10, 1984, March 16, 1984, and September 16, 1983.

1. Objectives of the LTIAP. In its "Proposed Long-Term Intertie Access Policy Issues" paper (Issues Paper) issued with the LTIAP and DEIS, BPA presents three objectives guiding its development of the LTIAP: (1) manage the Intertie so as to ensure BPA's ability to meet its fiscal obligations (i.e., maximize its revenue from sales of surplus power to California); (2) provide transmission service on the Intertie for PNW utilities to market their surplus firm and non-firm power; and (3) provide long-term certainty and stability for BPA and other PNW power marketing to the Pacific Southwest (PSW). In making these objectives the guiding principles in its development of the LTIAP, BPA has ignored and in fact has created conflicts with Congress's purpose in approving plans for the Pacific Intertie in the 1960's, principally that of sharing resources between California and the PNW for the equitably-distributed benefit of both regions. See LADWP v. BPA, 759 F.2d 684, 686 (9th Cir., 1985) (including citations). This sharing means using the Intertie both to provide economical alternative sources of power for purchase, and to enable seasonal (capacity) and capacity/energy exchanges based on differing load and resource characteristics of these regions. (California has a summer peak load while the PNW has a winter peak; California's generation is typically capacity-constrained thermal resources while the PNW's largely hydroelectric resources are energy-constrained.) The LTIAP would seriously interfere with congressional intent by eliminating all exchanges for the foreseeable future (BPA

itself does not intend to conduct exchanges until after PNW load/resource balance (see, e.g., BPA SCE-86 rate case)) and by reducing the amount of PNW power and energy economically available to California by increasing its price and causing a shift to alternative resources (e.g., cogeneration PURPA-qualified facilities). The latter effect includes the reduction or elimination of peaking capacity sales, pursuant to paragraph E.2.b. of the LTIAP, because such transactions apparently would market insufficient quantities of surplus firm energy in BPA's judgment.

The heart of BPA's first objective, maximizing revenue from California, is not whether BPA will receive revenue from California but how much it will get. The real issue is how much BPA can subsidize PNW electric rates with California's wealth. While PGandE and other California utilities obtain undeniable benefits from purchasing BPA and other PNW surplus power and energy, consistent with federal law and policy we should be able to obtain these resources at fair, non-monopolistic prices so that electricity trade between regions does not devolve into exploitation sponsored by a federal agency.

In addition to subverting congressional intent concerning the use of the Intertie, the LTIAP would also conflict significantly with congressional intent in the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act), 16 U.S.C. secs. 839-839h. In discussing the statute's impact on other regions, the relevant House Report observes that the PNW:

> ...is more likely to have the resources to support mutually advantageous exchanges with other regions and, in years of high river flows, seasonal surpluses to sell.
>
> In summary, the Committee was careful to ensure that this bill would not detrimentally impact other regions and that any impact would, in fact, be beneficial. (emphasis added)

H. Rep. No. 976, 96th Cong., 2d Sess. 44, reprinted in 1980 U.S. Code Cong. and Ad. News 5989, 6011. Since the LTIAP would convert "mutually advantageous" exchanges to transactions permitted only when they benefit BPA, as well as reduce the attractiveness of BPA and other PNW surplus electricity by artificially boosting its price, the proposed policy inevitably will be detrimental to California and the rest of the PSW, in direct conflict with Congress's expectations.

2. Conflict with Statutory Authority. Section 6 of the 1964 Northwest Preference Act, 16 U.S.C. sec. 837e, requires BPA to make available any capacity in federally-owned transmission lines connecting the PNW with both Canada and California (or other regions) "as a carrier," as long as such capacity is not needed for transmitting federal energy or Canadian treaty power. Once BPA has reserved the capacity needed for its power sales (which does not include sales it may wish it could make), the carrier status of its share of the Intertie requires non-discriminatory access to remaining available capacity for all other users. Indeed, if it were not for the first priority accorded to federal and Canadian treaty power, section 6 would operate to mandate common carrier status for BPA's portion of the Intertie; once those first preferences are satisfied, the federal Intertie is indeed intended to operate as a common carrier.

BPA's carrier obligation is inconsistent with at least two of the most problematic aspects of the LTIAP: its prohibition of certain types of resources (e.g., exchanges and capacity sales) from receiving access at all, or only when BPA decides its financial interests are not threatened; and its allocation of about 80% of the PNW's California market (BPA's share of the Intertie) among sellers, regardless of the wishes of PNW and California utilities. Despite unequivocal use of mandatory language in section 6 ("...shall be made available as a carrier... ." (emphasis added)), Section 1.4.4.3.1 of the DEIS, which discusses BPA's authority to develop Intertie access policy, regards this obligation as optional ("only after BPA's needs are met may any excess capacity be made available to non-Federal entities (16 U.S.C. sec. 837e)." (emphasis added)).

Since Canadian treaty power, in the form of the downstream power benefits which Canada received under the 1961 Columbia River Treaty, is entitled to priority equal to federal energy in access to the Intertie, any LTIAP must recognize that such power must be given access before any power other than federal power, at least to the extent BPA is exercising first priority for its power. 16 U.S.C. secs. 837e, 837h; see also LADWP v. BPA, 759 F.2d at 694. Because the LTIAP is proposed to be a policy with indefinite duration, priority for Canadian treaty power must be included even though present marketing arrangements for that power do not expire until 1997-2000.

Section 9(i)(3) of the Northwest Power Act also requires BPA to provide transmission service throughout the PNW including the Intertie, unless there is a determination that such service cannot be furnished without substantial interference

with BPA's power marketing program and other, more fundamental limitations. 16 U.S.C. sec. 839f(i)(3). Transmission service is also subject to the limitations of section 9(c) of this Act, which maintains PNW-use preference for BPA's resources. 16 U.S.C. sec. 839f(c). However, section 9(d) requires BPA to provide, among other things, "transmission access," without discrimination for development of new non-federal resources which do not increase BPA's firm load obligation. 16 U.S.C. sec. 839f(d). This last subsection appears to conflict with provisions of the LTIAP which deny access to new resources until the Intertie is upgraded to approximately 7,900 MW (para. A.14.b.(2)), and possibly also those which restrict Intertie access for new hydroelectric generation which meets all applicable licenses, permits and laws but which BPA decides will have adverse impact on fish or wildlife resources (paras. C.3.c. and I.3.e., f).

The limitation on transmission service due to substantial interference with BPA's power marketing program in section 9(i)(3) of the Northwest Power Act should not arise as an issue for Intertie access, given the first priority accorded to BPA sales under 16 U.S.C. sec. 837e. PGandE does not believe that BPA's proposal to set aside for its own use Intertie capacity equal to the total amount of its surplus firm power is consistent with the obligation to other entities contained in 16 U.S.C. sec. 837e, because such capacity is not "required for the transmission of Federal energy" unless a sale has been consummated which necessitates the transmission of such energy. As an alternative, PGandE recommends BPA modify LTIAP paragraph D.1. to correspond with paragraph D.3.a., which refers to capacity needed for performing obligations under new BPA transactions, while paragraph D.2. already reserves sufficient capacity for existing BPA contractual obligations.

3. BPA is not a federal regulatory agency. One of the more disturbing aspects of the LTIAP is the extent to which BPA proposes to control nearly all of the market between the PNW and the PSW. While BPA should use its power resources to the best advantage of all its customers, consistent with its statutory directives and limits, Congress has not authorized BPA to regulate the entire bulk power market among California, Canada and the Pacific Northwest. For privately-owned utilities, that responsibility belongs to the Federal Energy Regulatory Commission pursuant to the Federal Power Act.

Despite this, the LTIAP would dictate terms and conditions for transmission service contracts by requiring BPA approval

(e.g., conditions for access for exchanges mandated in paragraph E.4 and as suggested in the Issues Paper; conditions or payment of consideration for Intertie access by B.C. Hydro), would replace a competitive market in bulk power with administrative fiat, and would determine which types of resources (and their benefits) can pass from one region to the other. Given the means by which BPA proposes to allocate capacity on the Intertie, using a horizontal market-sharing scheme without regard to price for both firm and non-firm resources, and given the requirement that other PNW entities with transmission to California use their own capacity before receiving any BPA service (para. C.6.), BPA's allocation of the Intertie in fact amounts to allocation of the entire market between the PNW, including Canada, and California. However, BPA has no authority to regulate interstate and international commerce in electricity. Although BPA must provide some arrangement for allocating Intertie capacity (even if that arrangement is largely first-come, first-served, as before the Near-Term IAP), this arrangement cannot go so far as to regulate the bulk power market, largely for the parochial benefit of BPA and to the detriment of California and many PNW utilities. With good reason, Congress has not chosen to permit a federal agency engaged in proprietary activities to regulate the entire market in which it is located in lieu of all competition.

4. Formula (spot energy) allocation methods. This portion of the LTIAP (Section F.) appears nearly identical to the comparable provisions of the Near-Term IAP. An exception is that BPA proposes to reserve a larger share of the Intertie for itself under Condition 1 (after the expiration of the Exportable Energy Agreement), using an ambiguous definition of hydroelectric capacity. In our previous comments, incorporated above by reference, PGandE has discussed extensively the reasons why BPA should not use this horizontal market-sharing method which operates independently of price and which has the primary purpose of inflating the price of spot energy to California through the elimination of price competition among PNW sellers. As discussed above, BPA lacks statutory authority to create and operate a PNW cartel for purposes of sales to California. In addition, as described below in item 10, BPA's own studies fail to support a conclusion that BPA's revenue objectives will best be met by using this policy, as opposed to allowing price competition. In addition, under both the LTIAP and the Near-Term IAP, portions of BPA's Intertie capacity are wasted because a PNW seller receiving an allocation based on declared quantity is not always able to consummate a sale, even though in many or most cases another seller would be able to make a sale to a California buyer

and fill the unused portion of the other seller's allocated capacity. This phenomenon typifies the economic inefficiencies which would be perpetuated by the LTIAP in order to maintain some form of cartel discipline.

Instead of allocating virtually the entire PNW surplus spot energy market, BPA should allow price competition for such energy. BPA may first choose to reserve first for itself an amount of available capacity necessary to deliver spot energy BPA has sold to California, before making the remainder available to other PNW (and Canadian) utilities. This will avoid economic inefficiency and excess use of non-renewable and polluting fossil fuels for alternative generation, and will be much more likely to result in the equitable distribution of benefits from use of the Intertie that was part of Congress's intent in approving it. Even when the PNW hydro system is in or near spill conditions, while the price under a competitive regime may be lower than at other times of the year, PNW sellers still benefit handsomely because the revenue obtained from the sale of secondary hydroelectric energy is pure opportunity gain since there is no production cost, as BPA admits by assigning PNW hydro a marginal cost of zero (see letter of December 19, 1986, from A. Linehan of BPA to B. Mattson of CPUC, p. 3).

5. Exchanges and capacity sales. As discussed above, one of the most striking ways in which the LTIAP expressly contravenes congressional intent is in its prohibition, under a variety of conditions, of exchanges and most if not all peaking capacity sales. BPA admits in its Issues Paper that the purpose of eliminating exchanges at times when there is any firm surplus in the PNW is to market this surplus by preventing California utilities from obtaining needed resources by exchange instead of purchase. For much the same reason BPA apparently intends to provide Intertie access for few, if any, peaking capacity sales because they do not dispose of sufficient PNW firm surplus power. (PGandE understands that BPA has modified the LTIAP as issued by deleting paragraph E.3. concerning assured delivery for capacity contracts and incorporating a capacity factor criterion in paragraph E.2.b.(2) as an element to be used to determine whether a transaction is enough of a firm power sale to receive Intertie access.)

BPA admits in the Issues Paper that it is substituting its notion of what is best for BPA for "the best interest of individual Pacific Northwest sellers and Pacific Southwest buyers...." (Issues Paper, p. 2.) By deliberately foreclosing Intertie access not needed for any BPA transaction from other PNW and PSW entities, BPA is

expressly ignoring the requirements of Section 6 of the Northwest Preference Act, 16 U.S.C. sec. 837e. Since a California utility which wants to participate in a peaking capacity purchase, a seasonal capacity exchange or a capacity/energy exchange is interested in obtaining electrical capacity, BPA's refusal to permit such transactions would not meet its goal of disposing of surplus PNW firm power because that commodity consists of energy at a substantial capacity factor, along with capacity. From this perspective, BPA's major purpose appears to be yet another form of artificially inflating the price of surplus PNW energy by requiring California utilities to purchase quantities of energy they do not need along with capacity they do need. This constitutes a tying arrangement, something forbidden under federal antitrust law. That law would apply to BPA if it were not a federal agency; and BPA proposes to take advantage of its immunity to harm California. The purpose of this tying arrangement is to extract a higher price and a guaranteed market for the energy. Instead of being priced as spot energy, it would be priced at BPA's higher "cost" of exchange power, forcing California to subsidize rates in BPA's residential exchange program. Unfortunately, many of the California utilities which need capacity and find PNW prices attractive have no need to buy energy other than on the spot market. Indeed, for some of them, including PGandE, it would be wasteful at times to have take-or-pay energy purchase obligations.

BPA's essential purpose behind prohibitions and severe limits on exchanges and peaking capacity contracts, inflating the price at which this energy will be purchased, also would be accomplished by preventing the import (return) of energy to the PNW. However, BPA need not use such extreme means. As long as BPA is willing to compete fairly on price with other PNW sellers, and because the cost of PNW surplus energy (particularly hydro) can always be priced below California's alternative resources since the marginal cost of hydro energy is zero (see item 4. above), California utilities should be willing to purchase BPA's spot energy to fulfill both their peaking return energy and exchange energy obligations. Likewise, because BPA has such substantial hydroelectric resources, it should often, if not usually, be able to sell such energy to PNW utilities for the same purposes.

In its Issues Paper, BPA holds out the possibility of allowing Intertie access for exchanges if a California utility is wiling to pay BPA for this privilege (beyond wheeling rates). The example used is allowing BPA to displace both bulk power sales in California and purchases of economical PNW power made by the California utility. The

solution BPA offers is thus a Hobson's choice; in either situation (no exchange, or exchange with conditions) BPA would prevent the California utility from realizing virtually any net benefit from an exchange.

The worst effect of BPA's proposed policy is to require construction or acquisition of additional resources sooner than otherwise necessary in both California and the PNW, with associated adverse economic and environmental impacts. These consequences have not been examined in the DEIS, and indeed the asserted deleterious impact on BPA of permitting exchanges and peaking capacity sales has not been demonstrated in any quantitative terms in the DEIS or elsewhere. This effect is expressly contrary to one of BPA's stated purposes of both the LTIAP and Intertie expansions, namely "the maintenance and enhancement of environmental and economic efficiency," provided by John Taves at BPA's Public Comment Forum on the LTIAP and IDU DEIS held in Portland on December 10, 1986. (Transcript, p. 13, ll. 7-8.) Mr. Taves also admitted that "access for new resources to support some types of long-term firm contracts, for example, capacity energy exchanges, could actually reduce new resource development in both the Pacific Northwest and California by exploiting [load differences and resource complementarity of the two regions]." (Id., p. 19, ll. 2-9.) PGandE urges BPA to let these types of resources compete with all other long-term transactions for Intertie capacity, both to respect statutory dictate and congressional intent and to avoid imposing otherwise premature or unneeded resource costs on ratepayers in both regions.

6. Use of Average Firm Energy Surplus to Allocate Long-Term Intertie Access. Paragraph E.2.c. of the LTIAP places a ceiling on the amount of long-term firm transmission service a PNW utility may receive. This amount is to be based on the most current version of Exhibit B, showing average firm energy surplus as determined by BPA. It is inappropriate to derive and apply a ceiling this way, instead of allowing a competitive bulk power market to award access to the highest value transactions regardless of the seller. This provision of the LTIAP would reward PNW sellers who did the least judicious planning and therefore the greatest amount of overbuilding to meet native load. It would also destroy most price competition for firm PNW power in much the same way as the spot energy formula allocation, because a seller cannot increase its share of the long-term firm market by lowering its price; the seller is always constrained by BPA's determination of its share of the regional firm surplus.

The arrangement also conflicts with several provisions of BPA's statutory authorities. First, it is inconsistent with federal Intertie carrier status under Section 6 of the Northwest Preference Act, 16 U.S.C. sec. 837e, both by providing different treatment for certain resources and by discriminating against utilities which may have more power to sell than what BPA decides is good for itself. It would also extend impermissibly the restrictions imposed on BPA alone by Section 3 of the Northwest Preference Act, 16 U.S.C. sec. 837b and Section 9(c) of the Northwest Power Act, 16 U.S.C. sec. 839f(c), by preventing PNW utilities from selling power outside that region which BPA decides is not surplus to regional needs. Finally, it would conflict with Section 9(d) of the Northwest Power Act, 16 U.S.C. sec. 839f(d), by discriminating against PNW utilities in the provision of transmission access "on the basis of independent development of [a new] resource." For all these reasons, BPA should provide long-term firm transmission service in a manner which promotes a competitive bulk power market among the West Coast regions, including Canada. This will also enhance economic efficiency and, if environmental effects are reasonably incorporated in resource prices, minimize environmental harm.

7. Regional Distinctions are Inappropriate. The Pacific Intertie was built neither for the sole benefit of BPA nor even BPA and PNW utilities. Indeed, Congress intended that the benefits of the Intertie be shared equitably between the regions, as noted in item 1. above. Since the Near-Term IAP went into affect, and BPA has been able to price spot energy for itself and other PNW sellers at barely below the typical decremental cost of California purchasers, the overwhelming majority of benefits from interregional electricity trade have flowed northward. Any Intertie access policy promulgated by BPA should allow a California utility access to a PNW or Canadian utility for a purchase it has made, firm or non-firm, equally with access for PNW utilities which have sold power to California. This is what 16 U.S.C. sec. 837e requires. See also H. Rep. No. 590, 88th Cong., 2d sess., reprinted in 1964 U.S. Code Cong. and Ad. News 3342, 3350. Indeed, BPA should evaluate the comparative benefits and impact of such a policy as part of its IDU DEIS, in order to help explore a range of alternatives pursuant to NEPA consistent with what is provided for under relevant statutes such as the Northwest Preference Act.

In addition, BPA should clarify in any Intertie access policy it issues that imports to the PNW are not subject to preemption by BPA, since BPA has no need to do this in order to transmit federal energy, the only first preference

provided for the Intertie (apart from Canadian treaty power) under Section 6 of the Northwest Preference Act, 16 U.S.C. Sec. 837e. The sole exception is exchange energy, including peaking return, provided to BPA under contract.

8. Fish and Wildlife Protection. The LTIAP contains provisions intended to protect PNW fish and wildlife from impacts BPA judges are too adverse to be consistent with its programs to enhance these natural resources. As noted above, some of these provisions may conflict with Section 9(d) of the Northwest Power Act if they are new resources. In addition, BPA proposes to preempt short-term Intertie capacity allocations under the formula allocation methods if it decides it needs additional capacity to move more water through the federal dams. (LTIAP, para. F.1.; Issues Paper, p. 6.) To keep the parties whole, instead of merely preempting an allocation already provided to a PNW utility which may have concluded a sale to a California purchaser, to the extent preemption does interfere with a previously-concluded transaction BPA should make the energy generated by its additional flow at the dams available to the displaced seller at the seller's incremental cost. BPA should also specify standards for engaging in such extraordinary actions, and should explain why these would be needed in addition to the careful advance planning BPA performs along with other federal agencies and PNW utilities for use of the Columbia River system.

9. The LTIAP is Ratemaking. As PGandE has pointed out previously, we regard establishment and modification of the types of Intertie access policies proposed and implemented by BPA to be ratemaking under Sections 7(a) and 7(k) of the Northwest Power Act, 16 U.S.C. secs. 839e(a), (k). Specifically, we incorporate by reference our comments on this subject in our letter on the Near-Term IAP of August 10, 1984 and in the petition of the California Parties in FERC Docket No. EL85-6, of which BPA has a copy. In summary, because the purpose of the LTIAP is to raise BPA's rates above what they would be in the absence of a non-price based, horizontal market allocation scheme for firm power and non-firm energy, the LTIAP has an inescapable connection with BPA's rates. More specifically, by using this device designed expressly to limit or eliminate competition in the relevant market, BPA proposes to provide an essential ingredient in establishing and implementing its rates for power and energy. It also proposes to state an essential element of implementing its Intertie transmission rates and services, although its present (1985) and proposed 1987 rate schedules do not include these elements. Because the LTIAP is a component of BPA's 1985 and proposed 1987 rates and rate schedules, BPA should follow the statutory requirements

for revising current rates and should incorporate the policy as part of its 1987 rate proposal in order to make some form of LTIAP effective no later than July 1, 1987, as BPA intends.

10. The LTIAP Lacks Justification. Although a major objective of the LTIAP is to provide BPA with more revenue than it believes it would receive under the circumstances which preceded the Near-Term IAP (Issues Paper, p. 1; DEIS, Sec. 1.4.4.2), studies performed for BPA expressly for the IDU DEIS generally show less revenue to the PNW under a "BPA First" IAP then under Pre-IAP conditions. ("Final Report on the Long-Term Development and Use of the Pacific Northwest-Pacific Southwest Intertie: Effects on Pacific Southwest Utilities With an Emphasis on California," Independent Power Corporation, January 22, 1986, Table H-2, pp. H-2, H-4 for year 1987, pp. H-3, H-5 for years 1992, 1997, 2002.) Of the four years studied, assuming that the DC expansion and COTP are completed prior to 1992, only in 1987 does the PNW derive slightly greater total revenue under a BPA-first IAP than under pre-IAP conditions. In the other three years, under each of the export level cases studied, the PNW is better off without the horizontal arrangement of the LTIAP. Data for BPA alone is not provided.

The DEIS itself reveals the same paradox. In Table 2.1, item B. under Environmental Effects shows that secondary revenues under pre-IAP conditions are greater than under a policy like the LTIAP at current Intertie rating (Decision Package 1 vs. 2). These revenues under an Intertie expanded by both the COTP/3d AC and DC Expansion are greater under pre-IAP conditions (with long-term firm service) than under a policy like the LTIAP (Decision Package 6 vs. 4).

In addition, the DEIS does not evaluate the economic impact of various LTIAP options, and the options themselves (included in the Decision Packages) do not even include the LTIAP in the form proposed as Volume 2 of the DEIS. Even Section 4.8 of the DEIS, whose purpose is to present economic analysis, includes only a cursory examination of Intertie expansions and no access policy alternatives, and leaves to one short paragraph (4.8.3) the statement that the impacts of expansions and LTIAP alternatives on retail rates in both regions are "difficult to predict." (DEIS, p. 4.8-4.) This may not constitute compliance with NEPA, and BPA should provide an expanded economic analysis which evaluates alternative policies and shows how benefits and costs are allocated to BPA, other PNW, and PSW separately.

Since this intrusive, harmful, anticompetitive LTIAP has not been shown to meet BPA's financial objectives better than alternatives, sound discretion and judgment by BPA requires that it formulate an LTIAP which is not market-regulating, less destructive of competition, and more economically efficient. If BPA were to adopt the present LTIAP without persuasive evidence, particularly after experience with the Near-Term IAP, that it is the best alternative for achieving BPA's lawful objectives, BPA's actions would be unnecessarily arbitrary, capricious and punitive towards California and at least some PNW interests. BPA should specify in an LTIAP how it will determine the amount of capacity on the Intertie needed for sales of federal energy and how it will make all remaining capacity available to other utilities, regardless of region, for firm and non-firm transmission service.

II. The IDU DEIS

The greatest difficulty experienced by PGandE's technical reviewers in evaluating the IDU DEIS was the lack of quantified data upon which to evaluate BPA's analyses of the impacts of the various Decision Packages. The consensus among PGandE's reviewers is that BPA has either (1) not conducted the studies needed to support their evaluation of impacts, or (2) not adequately referenced their studies in a way that reviewers can use them to evaluate the BPA findings. The IDU DEIS should present adequate supporting documentation for the conclusions reached regarding the environmental effects of the specific Decision Packages, especially concerning air quality and water quality. In general, documentation for terrestrial and aquatic biology was well supported. The quantitative analysis examining the effects of operational changes in flows, spills, and reservoir levels on fish production and survival in the Columbia River for the scenarios BPA chose to evaluate was thorough, provided that the changes to its System Analysis Model (SAM) do not significantly change the result.

In the IDU DEIS, BPA indicated that various impact analyses may be subject to revision as a result of modification of SAM: "During the course of analysis for this EIS, several improvements were made to SAM. Some of these affected the Intertie study results. Therefore, the data presented in subsequent sections are not always entirely consistent" (page 4.2-6 of the IDU DEIS). This potential problem was discussed at the Portland clarification meeting on November 20, 1986. However, BPA added that a second IDU DEIS would not be issued to evaluate the environmental effects of the modified SAM results. PGandE requests that BPA provide an opportunity for

further review if changes in BPA's studies produce results that materially differ from those presented in the IDU DEIS.

PGandE believes that substantial effects may be under-represented due to the fixed set of assumptions used in BPA's power system models. BPA should include scenario or sensitivity analysis for a variety of factors. Specifically, alternative Intertie pricing, fuel costs, Canadian competition, load growth and load/resource balance forecasts, and the installation of combustion turbines as likely future Northwest resources should be studied in order to eliminate the possibility that the IDU DEIS is later found to be deficient.

PGandE's review of the Decision Package results presented by BPA shows that there are no negative environmental effects associated solely with open access to excess capacity (the Pre-IAP non-firm allocation option). Any adverse effects BPA associates with open-market IAPs in packages 1 and 6 can, if necessary, be avoided by adding specific features (e.g., new resource access) from the other packages, without including the horizontal market allocation, surplus firm energy based assured access, and Canadian power restrictions. Further, BPA's study results have provided no economic basis upon which BPA might choose a policy other than "Pre-IAP" for its non-firm market allocation option.

As BPA notes at page 2-4, power exchanges could defer resource development in both regions. Yet BPA's proposed policy would generally exclude access for such exchanges for the foreseeable future. BPA notes, at page 2-8, that it is considering granting assured delivery for exchanges after the region reaches load resource balance if BPA's power marketing program (PMP) is not "harmed." Given the substantial uncertainties at this time, PGandE believes BPA's assessment of impact should consider as an adverse impact the resource development that would occur (i.e., QF's in California and CT's in the PNW) assuming BPA denies access for exchanges. Potential exchange parties may pursue, or regulatory authorities may require, alternative resource development if the prospect for exchange access appears too speculative due to BPA's broad discretion or the uncertainty associated with determining when the Northwest will reach load/resource balance. Absence of such an analysis could be a major deficiency if BPA ultimately adopts an IAP which generally denies access for exchanges.

Reference Chapter 1 - Purpose and Need

1.1 o BPA does not have the authority to "manage other inter-regional transfers of surplus

power" as a regulatory agency; its function is to provide access to excess Intertie capacity.

1.2.2 o BPA does not need this LTIAP to enhance its ability to repay the U.S. Treasury. The proper way to repay the Treasury is to make reasonable rate case assumptions and, if necessary, revise rates to reflect changed circumstances.

1.2.2 o The LTIAP should not be used to shift benefits from California to the Northwest. BPA should follow congressional expectations and provide an equitable distribution of financial benefits. See PGandE's August 10, 1984 letter to Mr. Peter Johnson at page 3.

1.2.2 o BPA has no directive to "equitably allocate" access in excess of its needs. BPA is directed to "make capacity available" on a non-discriminatory basis.

1.4.2.1 o Somewhere in the IDU EIS BPA should describe how its choice of an LTIAP is consistent with congressional intent and how BPA will carry out this intent, including the second and third objectives and statutory transmission access directives.

1.4.3.2 o BPA should evaluate how its LTIAP could affect other Interties. BPA's denial of access for exchanges may provide sufficient incentive to build the Inland Intertie and thus render its LTIAP assessments largely meaningless.

1.4.4.2 o BPA has inaccurately characterized much of the history surrounding NTIAP development. BPA claims (page 1-8) that the lack of an IAP lead to "an unreasonable cost burden for BPA's PNW ratepayers." Although BPA cites its own reports for evidence of the rate impacts, an accurate evaluation would reveal that BPA's failure to adopt a flexible SP-1 rate as suggested by California parties was the root cause of BPA's 1982-1983 marketing problems. Once BPA added downward flexibility to its SP rate in November 1983, BPA's revenue recovery for surplus firm power sales improved dramatically (see CEC Opening Brief, CEC v. BPA, Ninth Cir. nos. 84-7836, 84-7838, 85-7430, and 85-7470).

1.4.4.3.1 No connection is shown or referenced between the proposed LTIAP or other policy alternatives and BPA's revenue enhancement. Also, the references to BPA's non-federal transmission obligations omit both the equal status of Canadian treaty downstream benefits with federal power and the restriction that "BPA's needs" do not include power which would be used to preempt sales made by utilities.

1.4.4.3.3 o BPA should identify an additional legal challenge to the NTIAP: FERC Docket No. EL85-6, brought by the California parties, which is before the FERC for rehearing.

1.5 o BC Hydro's Site C hydroelectric project could become a connected action if BPA's and other economic studies do not show sufficient benefits without additional sources of power.

Reference Chapter 2 - Alternatives, Including the Proposed Actions

2.1.1 o BPA projects $290 million in additional revenues to the PNW with the maximum upgrade, yet this amount is not supported elsewhere in the IDU DEIS.

2.1.4 o BPA's statement that the maximum Intertie capacity permits expanded capacity/energy diversity exchanges is not true under its proposed LTIAP.

2.1.4 o BPA should clarify the relationship it sees between the COTP/Third AC and additional firm sales and Northwest capacity availability.

2.1.5 o BPA's statement that expanded Intertie capacity could enable resource deferral through power exchanges between the Northwest and California is not true under its proposed LTIAP.

2.2.1.1 o PGandE does not think that Section 1.4.4.2 correctly describes the consequences of the Pre-IAP allocation option. (See PGandE's comments on Section 1.4.4.2.) BPA has presented no analytic evidence in the IDU DEIS to support the consequences described in Section 1.4.4.2. Indeed, Table 2-1 shows secondary revenues to the Northwest

$151 million, or about 3%, more than under the proposed policy for existing Intertie capacity.

2.2.1.3 o To conform to BPA's statutory transmission obligations, the BPA-First alternative should assume that excess capacity is made available on a non-discriminatory basis (e.g. first-come first-served; market auction; total load size percentage share; or mutually negotiated), and that if BPA does not use its own transmission allocation during any particular hour excess space becomes available for others.

2.2.1.4 o BPA should also state that an environmental dispatch-based Intertie access policy is not within the agency's authority to implement because it would amount to regional regulation of both privately and publicly-owned utilities.

2.2.1.4 o BPA's statement that air quality determinations are highly sensitive to meteorological conditions and necessitate hourly information implies that BPA should have undertaken such a level of analysis for this IDU DEIS.

2.2.1.5 o PGandE agrees that economic dispatch or power brokering would require utility consent or additional congressional authority in order for BPA to implement it. As discussed in PGandE's comments on Section 2.2.1.3, BPA could implement an auction process which would accomplish much the same objectives.

2.2.1.6 o BPA should quantify the effects and provide evidence stating the basis for its conclusion that the Near-Term IAP and BPA-First options would increase its revenues and that retail rate impacts in California would be negligible. BPA should also explain how reducing total non-firm sales under the BPA-First option meets the congressional intent of using resources more efficiently. BPA should explain how a LTIAP policy option that relies on administration rather than the free market uses resources most efficiently.

2.2.1.6 o If the revenue impacts BPA can assess are as negligible as BPA claims, then no policy

option can be favored because of its BPA revenue impacts. This conclusion supports PGandE's comment that Section 1.4.4.2 does not accurately describe the consequences of the Pre-IAP option on BPA's revenues. If BPA's policy choice is based at all on BPA revenue effects or interregional benefit distribution, then BPA must give a full account of its studies or judgments. See PGandE's comments on Section 2.2.1.1.

2.2.2.2 o BPA should specifically assess the alternatives of granting or not granting assured delivery for seasonal capacity with energy exchanges and capacity/energy exchanges in the IDU EIS, including the degree of impacts on BPA's PMP, if any. BPA should also explain what standards it would use to determine whether provision of access after load/resource balance would "harm" BPA's PMP. BPA should indicate any results that would be different if BPA used the "substantial interference" standard instead, such as under Section 9(i)(3) of the Northwest Power Act.

2.2.2.3 o BPA should qualify its long-term firm exports study results as based entirely on BPA's export marketing assumptions, including its assumption to associate only 600 MW of incremental sales with the Third AC/COTP. (Appendix A, Section A.6, page A-10).

2.2.2.3 o As BPA stated at the November 20, 1986 clarification meeting in Portland, the economic savings to California will depend upon the results of negotiation. BPA's statement that California resource savings would be "small but significant" is ambiguous and unfounded. BPA should consider a range of possible outcomes that would encompass the likely values for each of its policy alternatives. See also PGandE's comments on section 4.8 and Appendix A.

2.2.3.2 o BPA should explain how its interpretation to provide access for new resources at load/resource balance if it does not "affect" its PMP affects the results of the IDU DEIS compared to the statutory "substantial interference" standard.

2.2.3.3 o BPA should further explain the basis for its assumption that unrestricted Intertie access would lead to significant PNW hydro resource development because such resources may cost less than alternative California resources. Whether this actually occurs would also depend on regulatory approvals to build and operate the projects. BPA should provide evidence that an LTIAP is the only significant factor limiting new hydro development and quantify the amounts. BPA should include its assessment of the impact of such development on its PMP to determine the degree of interference, if any.

2.2.3.4 o BPA should explain further how unrestricted access leads to the resource development BPA assumes. Who is selling this power and who is building the resources? Also, could this resource development occur anyway over the unrestricted Intertie shares of other Northwest utilities? These study results seem to ignore key institutional planning processes. BPA should explain how such factors were considered. BPA should assess the impact of new resource development on its PMP to determine the degree of interference, if any. BPA should also evaluate the impact on interregional exchanges of its proposed LTIAP which will reduce California's willingness and ability to enter into such exchanges, as a result of building new resources when exchanges with the Northwest are unavailable.

2.3.1 o BPA provides no explanation as to why assured delivery would be available only for pre-existing contracts. Prior to the Near-Term IAP, the "pre-existing" contracts received assured Intertie access. There is no apparent reason why future contracts would not receive "assured delivery" without a formal LTIAP in place. BPA should clarify its reasoning concerning competitive prices resulting from Intertie access. It should be made explicit that the alternative higher prices are the result of anti-competitive practices.

2.4.5 o BPA should quantify the effects and provide evidence to support its claim that Decision Package 5 produces the largest decline in

BPA's PF rate and that California costs would increase. In the November 20, 1986 clarification meeting, BPA said it would not assess regional benefit distribution. In addition, BPA data from the Independent Power Corp. report (Appendices, Table H-2) on California impacts show relatively minor net effects on the surplus sales and prices under alternate LTIAP options.

2.4.6 o BPA should quantify the effects and provide evidence to support its claim that new resource development combined with the Pre-IAP access option could lead to higher Northwest retail rates. Secondary revenues reported under Table 2.1 are higher for package 6 than under packages 4, 5, and 7. In Section 2.2.1.6, BPA claims the retail rate impact due to non-firm policy options is negligible. PGandE believes PNW utilities would not develop resources for export if it would increase their retail rates. BPA should explain why it believes Northwest resources for export would be developed even when it would lead to increased retail rates. Could BPA change or institute any other type of policy that contributes to this effect?

Table 2.1 BPA's basic premise for stating that no protective measures are provided for fish and wildlife under packages 1 and 6 appears to be due to the fact that BPA will have no control through this policy over the development of new non-federal resources which are "harmful to BPA's fish and wildlife program." BPA's fish and wildlife program should be described. The IDU EIS should note that protection of fish and wildlife from the development of new resources would be provided by stringent federal and state regulatory requirements.

Table 2.1 BPA's Summary of Major Decision Elements and Environmental Effects is misleading and contradictory. BPA indicates in Decision Element F that packages 4, 5, and 7 offer protection to fish and wildlife resources. However, Part E on Environmental Effects shows significantly more effects on Pacific Northwest fish due to the implementation of packages 5 and 7 than with package 6. This was evident in virtually every area of fishery

related impacts, including: 1) springtime flows, 2) survival of migrating juvenile anadromous fish, 3) the coordination of fall and spring flows for Hanford Reach spawning and emergence, and 4) resident fish protection below Hungry Horse and Libby dams. With regard to the effects of reservoir drawdown on resident fish production in all Northwest reservoirs, implementation of package 6 was no worse than packages 5 and 7. As discussed at the November 20, 1986 clarification meeting package 6, Environmental Effects, Resident Fish-Reservoir Drawdown, should be corrected to read "Same as 2."

Table 2.1 BPA should show the environmental effects data for the four study years for the secondary revenues, the average energy price collected, fuel use (i.e., natural gas, coal and nuclear) and hydro spill for both the Northwest and Canada separately; and within the PNW, for BPA and all other PNW.

Reference Chapter 3 - Affected Environment

3.2.5.3 o BPA should include a summary of the remarks in the California Energy Commission's 1986 Electricity Report concerning BPA's Intertie access and rate-making policies. BPA should clearly indicate in its EIS that California policymakers are responding to BPA's anti-competitive pricing and marketing actions directed towards California by giving serious consideration to other resources (e.g., QFs) to displace Northwest imports of limited benefit unless BPA changes direction, while welcoming a BPA initiative like the non-firm rate cap formula in its proposed 1987 rates.

3.2.7.2.1 o BPA should summarize the CEC and CPUC actions to limit or remove the amounts of PNW energy assumed for the determination of QF pricing and siting. These actions increase QF energy payments and raise California ratepayer costs but are proposed because of the perception that BPA's pricing and marketing practices will seek to garner virtually all the benefits of Intertie use for the Northwest.

3.2.10 o Although BPA includes background information concerning cultural resources, no field

inventories have been conducted to evaluate the potential effect on significant cultural resource sites where reservoir levels will be lower than previously experienced. This was established at the clarification meeting of November 20, 1986 in Portland. Both NEPA and the National Historic Preservation Act (NHPA) require the agency to take into account the potential effect of undertakings on significant cultural resource sites. In order to do that, a professional cultural resource field inventory, archaeological subsurface testing program, ethnographic and historic research, and significance evaluations must be completed. BPA's cultural resource impact conclusion in Section 2.1.5 should be modified accordingly.

3.3.1 (footnote **) o BPA should not assume that the operation of British Columbia's thermal plant would not be effected by any of the proposed actions. BC Hydro has asked the Canadian National Energy Board for approval to operate the plant for export. In addition, PGandE considers Canadian summer capacity likely to be available to make beneficial use of existing or expanded Intertie capacity during periods when PNW power availability is limited and PGandE needs additional capacity to meet load. If BC Hydro did not have sufficient hydro capacity at such times, PGandE would seek to obtain capacity from BC Hydro's thermal plant if BC Hydro was willing to make it available. BPA's denial of Intertie access for capacity exchanges could lead to a greater probability that PGandE would need access to BC Hydro power.

Reference — Chapter 4 - Environmental Consequences

4.2.1 o BPA should clearly distinguish where results are based on its modeling of the integrated West Coast utility systems and where the result relies on BPA's judgments alone. BPA should explain the limitations of its modeling and how such limitations could affect predicted results (e.g., regions treated as single owner systems). BPA should provide commentary on the modeling results. Such commentary should use reasoned judgment to

evaluate the modeling results and explain possible effects under alternative scenarios.

4.2.2 (footnote *) o BPA should identify any inconsistent data and provide an explanation of the inconsistency and estimate the impact.

4.2.2 o Additional PGandE comment on BPA's modeling studies is provided as comment on Appendix A.

4.2.3.1.3 o BPA should indicate whether it has changed any assumptions about California market size under alternative policies. BPA should provide its assessment of the cause of a change in average price paid according to its models and indicate if this accounts for any change in sales. BPA should provide its judgment as to the cause of the change in sales. If BPA has assumed static pricing and market size, then BPA is really modeling availability rather than sales.

4.2.3.2.2 o BPA should at least briefly describe the assumptions used in its models about the factors that determine the mix of resources in the West Coast region. In particular, if BPA has assumed the same pricing regime across all LTIAP options, then the resource mix results from BPA's models may be completely invalid. See PGandE's comments on BPA's modeling studies under Appendix A.

4.2.3.2.1 o BPA should include in its results the changes in spilled hydro energy. This will provide an additional measure of efficient use of resources.

4.2.3.2.2 o The increase in oil and gas generation in California associated with firm contracts could be reduced if the capacity exchanges between PNW and PSW utilities traded equal amounts of capacity and energy. The assumed exchange contract used by BPA assumes that California utilities return large net quantities of energy to the PNW.

4.2.3.2.4 o While the relative shares of BC Hydro generation may not change, BPA should still evaluate the change in absolute generation quantities and identify, in particular, whether alternative LTIAP's affect the spill

of BC Hydro energy. This will provide a measure of efficient use of resources and allow a comparison of the trade-offs in effects on renewable vs. non-renewable generation (e.g., Northwest coal vs. Canadian hydro).

4.2.3.3 o BPA should make reference to and summarize the CEC's statements in its 1986 Electricity Report regarding BPA's pricing and Near Term Intertie Access Policy which may influence future California regulatory decisions. BPA should indicate how it has addressed such regulatory responses to alternative LTIAP's.

4.2.3.3 o BPA's assessment of new resource development may be seriously flawed by failing to include combustion turbines (CT's) as possible new resource options for the Northwest. BPA should study a scenario in which 500-1,000 MW of CT's are assumed to be developed first, as is indicated in BPA's draft WNP-1 and -3 study (p. II-7). BPA should also update its assessment of WNP-1 and -3 as likely future resources.

4.2.3.3 o BPA should provide an assessment of the new resources effects associated with denying access for seasonal capacity and capacity/energy exchanges. Denying such access could add an additional incentive for Northwest utilities to build CT's and result in additional QF development in California.

4.2.3.3.3 o BPA should make it clear that simply allowing new resources to have Intertie Access will not result in new resource development. In addition, denying Intertie access for new resources will not eliminate development, or the possible sale of such resources out of the region over existing or new interties using non-BPA Intertie capacity.

4.4.2.1.2 o BPA should use a presently available regional model (RIVAD, RTM, etc.) to model the western states for acid deposition.

4.4.4 o BPA's air quality analysis precludes a reasonable assessment of air quality impacts by decision package. BPA should provide a summary of emission estimates for all decision

packages along with emission projections for all other (i.e., non-utility) sources. Without emission data from all basin-wide emission sources, a determination of the effects of changes in fuel consumption (and, therefore, the alternative Decision Packages) on air quality is impossible. There is no SO_2 or TSP problem in California. Thus decreased SO_2 and NOx emissions will not make a significant air quality improvement in California air basins. The California air quality standards which are presently being violated are short-term: 1-hr. standard for O_3 and 24-hr. standard for PM-10^3. Therefore, the model should use projected seasonal (rather than annual average) emissions to determine whether the maximum short-term concentration will be affected. Moreover, sophisticated airshed models should be used. The analysis of air quality impacts has not been substantiated with supporting calculations and assumptions used in the derivation of expected emission rates. This deficiency makes it impossible to understand how numbers presented in the IDU DEIS were derived or what they mean.

Tables
4.4.9-4.4.22 The application of an "annual average concentration" to a large number of receptors is meaningless and is not used in air quality regulatory analysis. The modeling results presented are deceptive because they project changes computed by a Gaussian model as being regionally representative, which they are not since the regions are so large. A Gaussian model is normally used to model a few point sources in a region. Gaussian models are not meant for regional application.

4.4.5.3 o The argument presented for the reduction in exposure of a population to air pollutants as a consequence of proposed Intertie capacity and policy changes is unsubstantiated and incorrect. It is likely that reductions in NOx emissions in California may lead to an increase in the exposure to ozone. In addition, an increase in SO_2 and NOx emissions in the Pacific Northwest may be detrimental from the standpoint of acid deposition in the

Cascades. An in-depth analysis is warranted to examine these issues.

4.4.5.5.2 o The air quality impacts in California associated with firm contracts could be reduced if the capacity exchanges traded equal amounts of capacity and energy. See comments on Section 4.2.3.2.2.

4.5 o Although BPA concludes that impacts to water quality due to Intertie capacity and policy changes will be insignificant, no quantitative data from either monitoring or modeling studies was presented in the IDU DEIS to support the conclusions.

4.5.1 o BPA should examine the cumulative impacts to fishery resources resulting from energy development (especially small hydro) outside of the Columbia River.

4.5.2.1.5 o In discussions on PGandE's Pittsburg and Contra Costa Power Plants, the IDU DEIS fails to recognize operating constraints placed on these plants for the protection of striped bass. The IDU DEIS did not account for this loss in generation with the Intertie capacity and policy alternatives. Acid deposition is identified as a potential impact to surface waters in the Western States, yet no quantitative analysis was performed to analyze the effects of emission changes on water quality. Considering the potential sensitivity of lakes in the Cascades and Sierra Nevada to acid deposition, an evaluation which includes the application of an integrated lake watershed acidification model is warranted.

4.6 o There is no attention given to the consumptive loss of habitat resulting from development of solid waste disposal sites required for coal burning power plants. Other impacts associated with these facilities are only lightly touched upon (e.g., contamination of groundwater and direct toxic effects of surface water at waste containment ponds). The IDU DEIS fails to provide a list of rare and endangered botanical species associated with the project, an absolute requirement of any environmental analysis.

The IDU DEIS also fails to include any discussion on bird collisions with transmission lines, specifically with regard to the analysis of impacts associated with the proposed Third AC/COTP. The preliminary material prepared by Biosystems included a brief discussion on the subject. Impacts to wildlife and vegetation due to the development of another intertie would be significant, especially in the area of wildlife habitat losses. This would apply to a lesser extent to water quality and aquatic biology as well. Although this is an indirect effect of Intertie development, it warrants examination in the IDU DEIS.

4.7.1 o The text of the IDU DEIS is not clear
4.7.5.1 concerning the anticipated effect of fluctu-
Table 4.7.2 ating reservoir levels and wave erosion on significant cultural resource properties. The statement on page 4.7-1 that lower reservoir elevations would lead to less erosion on cultural resources is unsupportable without conducting field inventories to determine if significant sites are located within the anticipated fluctuation zones. Additionally, BPA states that changes in indices of wave erosion would be "less than one percent." Although the percentages may be small, there are no data to indicate how much additional shoreline acreage may be exposed at minimal pool levels, as the supporting table (Table 4.7.2) shows percent changes from existing capacity rather than surface area; there may be numerous cultural resource sites presently inundated that would be exposed at minimal pool levels. BPA's cultural resource impact conclusion in Section 2.1.5 should be modified accordingly.

4.7.3.1 o Although potential impacts are identified, no quantitative data are presented for the number of recreationists affected, no mitigation measures are proposed, and the magnitude of downstream and dispersed effects are not adequately discussed. BPA should also address the potential effect of new hydroelectric development within the BPA service territory on recreation.

4.7.5.4 o BPA apparently relied solely on existing information for their evaluation and it is not clearly stated in the IDU DEIS that BPA intends to conduct cultural resource inventories of the shorelines of reservoirs that may be subject to lower minimal pools. BPA proposes "completion of archeological surveys at Grand Coulee, Dworshak, and Hungry Horse Reservoirs in order to evaluate the existing sample of sites" (emphasis added). Unless complete surveys are made, some significant cultural resource properties could suffer from erosion and/or vandalism.

4.8 o BPA should present an economic analysis not only of the Intertie upgrades, but also for each access policy scenario and should include an assessment of benefit distribution among the regions. BPA's LTIAP choice and the relative distribution of benefits could affect CPUC evaluation of PGandE's application to proceed with its share of the COTP. BPA will fail to evaluate key economic impacts associated with its policy choices if it does not conduct and present such an analysis.

4.8.2.2 o PGandE thinks that available and useful capacity exists both within the PNW and its surrounding regions so that full use can be made of new Intertie capacity. Summer capacity, in particular, should be available from Canada in amounts up to the transfer capability of the existing BPA-British Columbia transmission lines. BPA should clarify whether it has considered the existing oil or gas fueled thermal resources in the Northwest and Canada as available capacity sources for summertime peaking needs.

4.8.2.2 o BPA should explain the basis for its assumption that the Third AC/COTP "would have to be completed" before the Northwest could transmit more than 2,550 MW of firm capacity.

4.8.2.2 o BPA's assessment of on-peak displacement benefits does not appear reasonable for PGandE's system. For example, the recent CEC 1986 Electricity Report shows low probabilities of non-oil/gas fired resources being on margin in future years. Thus, oil/gas resources and economy energy will be

the likely sources of return energy. BPA's assumption that all off-peak energy return will be provided by coal plants or equivalently priced energy is unreasonable. BPA should also consider that the return provisions of its proposed capacity contracts would require energy return during shoulder periods. Thus, over the life of the contract the maximum return energy price differential is likely to be only one-half to one-third of the amount estimated by BPA.

4.8.2.3 o BPA should study alternative scenarios for at least a range of Northwest energy and capacity availability and fuel prices.

4.8.3 o BPA should make the assumptions necessary to estimate possible regional impacts for the LTIAP options and allow reviewers to comment on the assumptions. BPA has recently made estimates of the revenues expected through sales to California in its planning studies such as its 1987 Draft Resource Strategy. (BPA assumed the California price would equal the average of 85% of value and BPA's non-firm rate.) BPA clearly has the ability to assess regional economic benefit distribution and should do so.

4.9 o BPA concludes that none of the Intertie actions is expected to affect significant cultural resources or heritage properties or sites significant to Native Americans. Such a statement can not be fully supported without completing field inventories and ethnographic studies, as indicated earlier concerning section 4.7.5.4; given BPA's proposed management program it may not be true that all anticipated effects will be mitigated. BPA's cultural resource impact conclusion in Section 2.1.5 should be modified accordingly.

APPENDIX A - Power System Analyses

Reference

Introduction: As BPA notes, it has relied extensively on the results of using various models to determine the impacts of Intertie policy and expansion alternatives. Thus the assumptions used in

these models become critically important in assessing the range of actual results. For this reason, PGandE believes BPA should now consider multiple scenarios. The single best-guess approach to key variables used in the IDU DEIS has long been abandoned in virtually every other analytic process BPA undertakes. BPA should also make reference to the limitations of models. For example, PGandE doubts whether BPA has incorporated "the wasted allocation" effect of its access policy in its modeling. This effect occurs when a Northwest utility that receives an Intertie allocation is unable to market its spot power and also blocks other utilities from marketing some of their power. This effect, which becomes more likely under low oil/gas prices, reduces both available Intertie capacity and energy sold to California. This phenomenon has been observed under both high and low market price conditions under the Near-Term IAP.

A.1.2 BPA appears to assume that willingness to pay is constant across LTIAP options and under all marketing conditions. PGandE suggests that BPA consider alternative "willingness to pay" factors which could be triggered either by LTIAP option or by Intertie marketing conditions (i.e., relative Northwest power availability and California market saturation). By assuming a constant pricing regime across all LTIAP options, BPA is either ignoring a critical factor substantially affecting resource development and operations or is assuming that its policy choice really has little effect on Intertie spot market pricing. BPA's modeling should reflect actual market experience to the extent possible. BPA should explain its basis for its "willingness to pay" assumption and compare this to experience.

A.1.3 PGandE thinks BPA should consider at least one alternative BC Hydro pricing regime in order to determine if this could affect BPA's environmental results. At the November 20, 1986 clarification meeting BPA said it plans to revise the modeling of BC Hydro competition in its SAM model. BPA should fully describe the changes, particularly where reservoir

operations may be affected, and allow additional comment if the study results materially differ from those presented in the IDU DEIS.

A.1.4 BPA should explain what feature of the BPA-First policy option it would implement in order to prevent BC Hydro's sales under Condition 3 from causing a price drop. BPA's basis for including such a feature in an LTIAP package should be explained fully in the description of this feature in the IDU DEIS.

A.1.4.1 BPA should study at least two alternative load growth and load resource balance forecasts. BPA should also consider scenarios in which WNP-1 and -3 are not developed but are replaced by other resources. At least one scenario should assume that 500-1000 MW of CT resources are developed (see BPA's draft WNP-1 and -3 study at page II-7).

A.1.4.2 As discussed at the November 20, 1986 clarification meeting, BPA plans to make several revisions affecting marketing decisions to its SAM model. BPA should take actions noted in our comments on Section A.1.3.

A.1.4.3 BPA should update its fuel price forecast and include at least two alternative fuel price forecasts. The fuel price forecast is fundamental to the issue of oil versus coal versus hydro resource dispatching. BPA must include alternate forecasts in order to assess the range of environmental impacts due to likely resource operation impacts. BPA should provide the non-firm and surplus firm rate forecasts used.

A.2.1 At the November 20, 1986 clarification meeting, BPA noted that it did not consider combustion turbines as future new resources because the LCMM does not adequately represent such resources. Because the addition of such resources could so profoundly affect the Northwest system operation and drastically change results under various scenarios for the IDU EIS, PGandE believes BPA should add 500-1,000 MW of new CT resources into an alternative resource plan to test the impacts

of Intertie policy and capacity changes on such a system. BPA's recent draft WNP-1 and -3 resource strategy recognized that CT resources could be the economic choice ahead of the WNP units.

A.6 BPA should model a generic capacity exchange contract in which the summer capacity and energy amount provided to California equals the winter capacity and energy amount received by the Northwest. Such contracts may have environmental results less severe than those associated with the generic exchange contracts assumed by BPA. In addition, analysis of such a contract may allow BPA to present the aspects of such an exchange it thinks are harmful and to quantify such harm.

Appendix B - Air Quality Analysis

Reference

Appendix B The conversion rate for SO_2 to SO_4 is not specified. These rates are highly oxidant dependent and will vary regionally as well as with the time of year (from <1%/hr to 100%/hr).

These comments are substantial, and if people at BPA would like clarification we will do our best to provide it. If BPA examines alternatives to the present version of the LTIAP, we would be pleased to participate in that process.

Very truly yours,

Stuart K. Gardiner

cc: Dan Beard, U.S. House Subcommittee on Water and Power Resources
Linda Carey, SMUD
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COMMENTS OF THE NATURAL RESOURCES DEFENSE COUNCIL ON THE

BONNEVILLE POWER ADMINISTRATION'S

PROPOSED LONG TERM INTERTIE ACCESS POLICY AND

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Submitted by: Ralph Cavanagh
Senior Staff Attorney

Dated: January 15, 1987

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COMMENTS OF THE NATURAL RESOURCES DEFENSE COUNCIL ON THE BONNEVILLE POWER ADMINISTRATION'S LONG TERM INTERTIE ACCESS POLICY AND DRAFT ENVIRONMENTAL IMPACT STATEMENT (No. SJ-L2)

January 15, 1987

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I. Introduction and Overview

This statement presents the views of the Natural Resources Defense Council (NRDC) on the Bonneville Power Administration's (BPA) proposed Long-Term Intertie Access Policy, and the accompanying Draft Environmental Impact Statement (DEIS). NRDC is a nonprofit environmental organization with some 70,000 members and contributors, more than 3250 of whom reside in the four Pacific Northwest states. NRDC has been an active participant in BPA decisions since 1974, and has filed extensive comments at numerous earlier points in this proceeding.[1]

At its current capacity, the Pacific Intertie creates a 5200 Megawatt (MW) transmission pathway between California and the Pacific Northwest.[2] BPA owns almost 80% of this capacity. Proposed additions could expand the system to 7900 Megawatts by the early 1990s, and increase still further BPA's ownership share.[3] Transactions on this scale create huge economic stakes; every transfer of 1000 average megawatts creates almost $90 million in income for every penny per kilowatt-hour that the seller can charge, and the typical year of the 1980s has produced more than 3000 average megawatts (aMW) of Intertie commerce. For California, of course, the equation works in reverse: every penny per kilowatt-hour saved on each thousand average megawatts of Northwest imports, compared with alternative power supplies,

[1] See, e.g., Comments on BPA's Notice of Intent to Develop an Intertie Access Policy (Aug. 19, 1983); Harvesting Conservation: Seven Trillion Mills From a Long-Term Sale of Firm Surplus Electricity (Jan. 1984); An Access Policy for the Pacific Northwest -- Pacific Southwest Intertie: Recommendations to the Bonneville Power Administration and the Northwest Power Planning Council (March 7, 1984); Surplus Power Marketing Issues (March 28, 1984); Comments on the Bonneville Power Administration's Near-Term Intertie Access Policy (Aug. 13, 1984); Comments on BPA Notice of Intent to Prepare an Environmental Impact Statement on a Proposed Long-Term Intertie Access Policy (Oct. 29, 1984); Cross-comments on the scope of BPA's Intertie Access Policy EIS (Dec. 28, 1984); Comments on the Bonneville Power Administration's Draft Implementation Plan for the Environmental Impact Statement on its Long-Term Intertie Access Policy (June 2, 1985); Comments on the Bonneville Power Administration's Discussion Paper of Major Issues in the Development of the Draft Long Term Intertie Access Policy (April 3, 1986). We intend these materials as part of the instant comments, and incorporate them by reference in what follows.

[2] A 2000 MW direct-current line connects northern Oregon and the Los Angeles area; two 1600 MW alternating-current lines link the Northwest system to numerous California terminals that extend from Round Mountain in the north to Lugo in the south.

[3] Proposed AC and DC system upgrades would add 1600 and 1100 MW, respectively, with lead-times of about three years (AC) and two years (DC) each. BPA would own all the capacity from the DC upgrade, and more than 80% of its AC system counterpart. Telephone communication from Roy Fox, BPA, January 12, 1987. A much more speculative and costly inland Intertie would expand still further the Northwest's inter-regional transfer capabilities.

represents an additional $87.6 million in the pockets of state ratepayers. Environmental stakes are also high for both regions, in terms both of potentially displaceable generators and the development of export-oriented power supplies. BPA's Long-Term Intertie Access Policy represents an extraordinary opportunity to create enduring benefits for both regions.

The draft policy and DEIS are in some respects promising, but stand in urgent need of amendment. BPA has placed some, albeit insufficient, obstacles in the path of those who would build environmentally destructive generators for export; the agency has also acknowledged the role that energy conservation can play in mutually beneficial power transfers, and has created some economic incentives for Northwest utilities that own power plants to stretch their surpluses by investing in conservation. But, as explained in the sections that follow, there are five major areas where improvements are badly needed:

1. BPA should condition access for utilities' long-term power transfers on the sellers' waiver of any right to force BPA to replace the power that is being sold;

2. BPA should specify that prompt access for other utilities' long-term transactions can be granted only upon a finding of no significant environmental impact, which in turn requires sales involving only pre-existing generators, future conservation programs, and/or exchanges of capacity;

3. BPA has failed to investigate or develop ways to ensure that Northwest conservation can compete on equal terms with Northwest power plants for California revenues;

4. BPA has neglected opportunities to reduce economic and environmental costs associated with the operation for export of the Northwest's coal-fired power plants; and

5. Crucial gaps remain in the DEIS's analysis of options for allocating Northwest exports in California; most important, the DEIS ignores environmental benefits from alternatives to California utilities' current purchasing patterns.

Our comments close with a review of two crucial issues that

will not and could not be resolved by the final policy and EIS: the sale of Intertie shares to other utilities, and the grant of transmission access to new generators constructed by out-of-region entities, including British Columbia. BPA's involvement in any of these dubious transactions would, of course, require new and extensive environmental proceedings.

II. Protecting BPA's Ratepayers from Imprudent Intertie Sales

In a December 1986 speech, BPA Administrator Jura described a dilemma that troubles many of his constituents:

> These utilities [BPA's Northwest competitors for California markets] can offer their product with a fat insurance policy. They know they can fall back on Bonneville with their loads if they miscalculate and need additional power.[4]

The proposed policy threatens to institutionalize Mr. Jura's concerns, by offering utilities that make long-term sales the option of either (1) waiving rights to BPA replacement power or (2) putting BPA on notice that it will have to provide such power on demand. Since option (2) is apparently available at no extra charge, it is difficult to believe that anyone will be public-spirited enough to sign up for the waiver. The region's ratepayers will then be unwitting guarantors of every long-term sale that BPA's competitors can negotiate.

The short answer to those who applaud this result is that no utility has the right to use the region's transmission system to pick the region's pocket. BPA's own fiscal interests cry out for conditioning transmission access on a waiver of any BPA obligation to replace all or part of the power involved. Appendix 1 to these comments proposes an appropriate amendent to section E.7 of the policy. Appendix 2 offers additional support for the waiver requirement, in the form of the Pacific Power and Light Company's commendable disclaimer of any entitlement to have

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[4]Remarks of Jim Jura before the Public Power Council, Portland, OR, at 3 (Dec. 3, 1986).

its long-term sales backed by BPA replacement power. No other utility should ever be allowed to demand what PP&L, by its own admission, has no right to expect.

III. Environmental Conditions on Long-Term Firm Sales

Before approving any long-term grant of Intertie access to any utility, Northwest or otherwise, BPA must comply with the National Environmental Policy Act (NEPA). This DEIS is not, of course, a substitute for environmental analysis of individual transactions; no such transaction is identified or analyzed in what is clearly intended as a broad programmatic assessment. For transactions that could result in substantial environmental impacts, access will have to await BPA's preparation of an environmental impact statement.

For utilities that find this prospect burdensome, there is a straightforward solution: structure the transaction to rule out, in advance, the possibility of significant environmental impacts. BPA could perform a valuable service for all concerned by specifying, in the long-term policy, the preconditions for an agency finding of "no significant impact." BPA's recent sale to Southern California Edison (SCE) affords a useful precedent.[5] Illustrative "no-impact" preconditions include precluding construction of new Northwest generators to support the sale, either by transforming the transaction automatically into a capacity exchange when the seller's energy surpluses disappear (the SCE model), or by using some combination of domestic interruption rights, conservation investments, and currently-idle California generators to ensure that the seller's energy surpluses can be sustained over the term of the contract.[6] Comparable guidelines for protecting fishery resources from

[5]See Bonneville Power Administration, Environmental Assessment: Proposed Contract with Southern California Edison (May 1986).

[6]Such safeguards are outlined at length in NRDC, Harvesting Conservation, note 1 above, at 19-27.

operational changes should be developed in consultation with the relevant interests.

Utilities that are unwilling to adopt such safeguards must understand that their transactions cannot be scheduled until BPA has completed, and the public has reviewed, an environmental impact statement. No sale is exempt, not even those involving the so-called "priority resources" indentified in section 9(i)(3) of the Pacific Northwest Electric Power Planning and Conservation Act (see Appendix 5 for further discussion). While NEPA requirements are independent of any Intertie policy provision, a discussion in the policy would assist planning by all prospective participants in long-term Intertie transactions. In particular, a clear understanding of ways to minimize NEPA compliance burdens would encourage utilities to structure their transactions in environmentally responsible ways.

In their search for such transactions, some utilities may be impeded unnecessarily by BPA's seeming hostility to seasonal exchange contracts. Such contracts, which take advantages of differences in the timing of peak needs for the two regions, can bring substantial mutual gains in both economic and environmental terms. BPA's unwillingness to schedule such transactions "[u]ntil BPA is within a planning horizon of load/resource balance, as determined by the Administrator,"[7] imposes formidable burdens of uncertainty on planners who deserve better. If serious negotiations over exchanges cannot begin until deficits are imminent, the parties may be driven to unnecessary investment in generators that could have been displaced by the exchanges.

There are some Intertie transactions, by contrast, that can and should be precluded from the outset. In particular, we strongly support an advance notice of BPA's intention to deny access to transactions that do not include safeguards against construction of new generating resources to support the sale.

[7]BPA, Proposed Long Term Intertie Access Policy, at 7 (§ E.4).

BPA should have no hesitation in demanding of others what it accomplished in its own SCE sale: a transaction designed to avoid significant environmental impacts. Appendix 5 argues that such restrictions would be particularly constructive in the context of sales by sponsors of some recently-completed Northwest power plants.

Neither of these reforms -- guidelines for structuring "no-impact" long-term transactions or outright denial of access to transactions that do not meet the guidelines -- is analyzed in the DEIS. Notably absent from the list of "Decision Packages" analyzed in the DEIS (pp. 2-17 to 2-18), for example, is one that combines an Intertie upgrade to 7900 MW with access restrictions for new generating resources. Yet the case for protecting the Northwest's environment against destructive sales should not hinge on the size of the transmission system. Filling these analytic gaps should help convince BPA of the wisdom of more stringent access conditions for long-term sales.

IV. Letting Conservation Compete for Intertie Dollars

It is frustrating but entirely understandable that there is more interest among cities, utilities and entrepreneurs in new generators than in less expensive conservation, from an export perspective. Reward structures for new power production are much better developed than their counterparts for conservation;[8] straightforward mechanisms for export sales credited to conservation-displaced power have yet to appear, despite repeated urgings and specific proposals by NRDC and others.[9] Appendix 3

[8]For example, the Public Utility Regulatory Policies Act of 1978, which was designed to increase competition in the power supply business, "speaks exclusively to the generation of electricity; its provisions can be searched in vain for any incentive to conserve the product." Cavanagh, Least-Cost Planning Imperatives for Electric Utilities and Their Regulators, 10 Harvard Environmental Law Review 299, 309 (1986).

[9]See, e.g., sources cited in note 1 above.

contains one of these proposals, which has languished for three years at BPA without any response.

The DEIS and the accompanying policy are almost barren of contributions on these crucial issues. The DEIS does note that restricting long-term firm sales to the output of existing generators "would act as an incentive for the development of conservation in the [Pacific Northwest]" (p. 2-9), and we agree. But BPA has not responded to NRDC's long-standing request for mechanisms that allow utilities without power plants of their own to participate in California sales. In other words, utilities should be able to invest in efficiency improvements and sell the power they save to California (see, e.g., Appendix 3 to these comments). As matters now stand, only utilities that operate or build power plants will be able to participate in Intertie transactions. NEPA compels a search for environmentally preferable alternatives to this anomalous result, which is also inconsistent with the statutory preference that Northwest conservation enjoys over power plants of all types.[10]

V. Operating Northwest Coal-Fired Plants for Export: A New Environmental Order

As Appendix 4 to these comments explains at length, Northwest coal-fired power plants play a central role in electricity sales to California. Indeed, by our calculations, more than two-thirds of the Northwest's Intertie commerce is coal-based. The fourteen coal-fired power plants now nominally serving the Northwest region are operated almost exclusively for export. Yet current production patterns minimize neither the operating nor the environmental costs of serving California's needs. In particular, the Northwest wastes both money and environmental quality by operating the Centralia units when cleaner, less expensive plants are idle. The DEIS implicitly acknowledges this practice, by presenting numerous export

[10]See 16 U.S.C. § 839b(e)(1).

scenarios in which Centralia operations increase while Colstrip production declines.[11]

The DEIS recognizes NRDC's repeated requests for improved coal-unit operations (p. 2-5), but contends that there is no way to assign environmental rankings among plants:

> BPA would have to weigh impacts according to plants' emissions, location, and surrounding populations, in order to determine the plants' relative damages. Weighing those factors in order to choose the environmentally preferable coal plant would require judgments about tradeoffs that are far from clear. (p. 2-5)

Moreover, in BPA's view, the whole exercise may be fruitless:

> If ... power from the environmentally preferable resources in the PNW costs more than power from California resources, California utilities might not buy it. Instead, they might generate more power from oil/gas plants that pollute highly populated areas in California. (p. 2-5)

Such objections do not relieve BPA from its obligation to continue the analysis that is begun in Appendix 4 to these comments. To begin with, whatever the complexities of environmental rankings for coal plants, the region has one clear loser: the two Centralia units. As the DEIS acknowledges, these plants dwarf all competitors in sulfur dioxide emissions,[12] both absolutely and relatively,[13] and have more human neighbors than

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[11] See, e.g., DEIS at 4.4-12, 4.4-25, 4.4-35.

[12] As the DEIS acknowledges, sulfur dioxide emissions are both hazardous to human health and a primary constituent of acid rain. Appendix 4 indicates, at Table 6, that Centralia accounted for more than half of all sulfur dioxide omissions from Northwest power plants between 1982 and 1985.

[13] See DEIS at 3-31 and 4.4-12; Centralia is also slightly inferior to Valmy and Boardman in its particulate controls, and not significantly superior to Colstrip. Id. at 4.4-12.

any other Northwest units.[14]

What of the cost implications of reducing Centralia's share of Northwest exports? These units in fact are relatively expensive to run,[15] and the less costly Colstrip plants have been underutilized. Cutting back on Centralia appears to be a money-saving proposition from the perspectives of both the Northwest and California. Indeed, minimizing the total sulfur dioxide emissions associated with all Northwest power exports, through a strict sulfur-dioxide-oriented "environmental dispatch," would have raised the cost of Northwest power exports by less than four-hundredths of a cent per kilowatt-hour in 1984.[16] That is hardly enough to drive California to oil- or gas-fired generators.

We trust that these findings will galvanize BPA into a search for ways to reduce the environmental costs of serving California loads. In particular, BPA should investigate and adopt methods for minimizing Centralia's contribution.

VI. Gaps in the Analysis of California's Environmental Stakes

The DEIS acknowledges repeatedly BPA's obligation to address the implications of Intertie capacity and use for California's environmental quality. Yet all BPA's analyses are subjected to an unreasonable constraint: current allocations of Northwest imports among California utilities are held rigidly constant. The utilities that now dominate Intertie commerce -- Pacific Gas and Electric, Southern California Edison, and Los Angeles Department of Water and Power -- are virtually the sole focus of

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[14] DEIS at 4.4-3; substantial communities within a 40-mile radius include Olympia, Centralia, Tumwater, Chehalis and Raymond.

[15] See Appendix 4, Figure 3 (Centralia's operating costs are nearly 18 mills/kWh, compared with 9.5 mills/kWh or less for the Colstrip plants).

[16] See id. at 1 and Table 8.

the DEIS. Largely ignored are numerous municipal utilities and the San Diego Gas and Electric Company. The DEIS does not so much as inquire whether variations in current Intertie allocations could reduce environmental costs, nor does the DEIS propose or investigate environmentally preferrable allocations.

These omissions are unacceptable on both legal and policy grounds. Obviously, BPA itself lacks statutory authority to change California utilities' Intertie shares, but "[t]he impact statement is not only for the exposition of the thinking of the agency, but also for the guidance of [other] decisionmakers, and must provide them with the environmental effects of both the proposal and the alternatives, for their consideration along with the various other elements of the public interest." NRDC v. Morton, 458 F.2d 827, 835 (D.C. Cir. 1972). Alternatives beyond the scope of an agency's direct authority are "subject to a construction of reasonableness," and "[w]here the environmental aspects of alternatives are readily identifiable by the agency, it is reasonable to state them -- for ready reference by those concerned with the consequences of the decision and its alternatives." Id. at 837.

BPA has already invested extensive analytic resources in exploring air quality impacts of sales to California under differing Intertie capacities and Northwest access conditions. What we are requesting here is a natural extension of that work: addition of scenarios in which Intertie allocations are varied among California utilities to reduce environmental costs and minimize needs for new generating capacity. For example, scenarios should be developed that use Northwest power to (1) maximize air quality benefits (by maximizing oil/gas displacement in periods of adverse air quality); (2) minimize the cost of producing power in California and the Desert Southwest; and (3) avoid California utilities' most costly new-resource commitments, including those potentially associated with replacement of the Rancho Seco nuclear plant.

Its assumption that current Intertie allocations are cast in

stone leads the DEIS into some obvious anomalies. For example, policymakers are told that a 2700 Megawatt Intertie upgrade will increase California's air pollution costs, compared to an 1100 megawatt upgrade, even though more Northwest power will be available to displace California generators (p. 4.4-1). This paradox is solely a function of inflexible Intertie allocations; the crowded and polluted Los Angeles basin arbitrarily receives a smaller percentage of a bigger pie when the Intertie expands from 6300 MW to 7800 MW, and the result is higher statewide air pollution costs. By the same token, there is no reason to assume that the current Intertie access structure within California works to minimize the state's expenditures on new generators.

To recapitulate: BPA is proposing and evaluating changes in both the capacity and use of the Intertie, with reverberations extending far beyond the Northwest. The environmental consequences of BPA's decision are in part a function of the uses to which Intertie sales will be put. Consequently, without assessing alternatives to current Intertie use patterns in California, BPA cannot determine the best ways to maximize the environmental (and economic) benefits of its decisions. That result is irreconcilable with both NEPA and the interests of the regions involved.

VII. Issues that BPA Appropriately Defers: Selling Intertie Capacity and Building Extra-Regional Resources

It is somewhat unusual for NRDC to applaud omissions from environmental impact statements. On two issues, however, BPA's inaction is well-considered and beneficial. Precisely because the agency is at pains to omit analyses of independent Intertie ownership and the construction of British Columbia's Site C dam, neither of these ill-advised proposals is in any way advanced by either the DEIS or the proposed Intertie access policy.[17]

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[17]See DEIS at 1-7 (making part of Intertie "available to PNW utilities through a subscription process" "would require its own

We emphasize our continued conviction that these unexplored ventures involve "major federal actions signficantly affecting the quality of the human environment," and as such would compel the preparation of a separate environmental impact statement.[18] Independent Intertie ownership is a vehicle for evading the environmental safeguards of BPA's Intertie Access Policy; moreover, we know of no lawful way to limit the bidding to Northwest entities, and many in the region share our concern at the prospect of absentee ownership. Site C is an ill-considered proposal by an unreliable supplier that has yet to display any awareness of alternatives to large-scale generating units. For any extraregional utility that wants to build power plants for California, in reliance on Intertie availability, future BPA EIS's will provide a lengthy and instructive education on better ways to sustain surpluses for export. Of course, such embarrassments can be avoided for extraregional transactions that are structured to avoid adverse environmental consequences, as explained above in Section III.

A CONCLUDING OBSERVATION

The authors of the DEIS describe BPA's environmental mission in wholly unsatisfactory terms. As the authors see it, the agency's goal can be subsumed in one less than memorable phrase: "to support acceptable environmental quality."[19] This is hardly a faithful rendering of the Congressional declaration of purpose that begins the National Environmental Policy Act:

> The purposes of this chapter are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation ...[20]

BPA's version, "to support acceptable environmental quality," is both dispiriting and dubious. The City of Los Angeles presumably enjoys "acceptable environmental quality," in the sense that millions live and work there. With very few exceptions, BPA's employees and constituents have always insisted on a much more exacting standard. In the final EIS, and in all future documents of this kind, we look forward to an emphatic statement of the agency's commitment to preserve and improve environmental quality.

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environmental analysis and review"); and 1-10 (Site C "is in the very early stages of discussion, and as such is not sufficiently developed to be included within this EIS"; "the proposal will be subject to all relevant environmental and procedural requirements," should BPA ever decide to pursue it further).

[18] See NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C).

[19] See, e.g., DEIS at S-1, 1-1.

[20] NEPA § 2, 42 U.S.C. § 4321.

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APPENDICES TO NRDC'S

COMMENTS ON BPA'S

PROPOSED LONG TERM

INTERTIE ACCESS POLICY

AND DEIS

List of Appendices

Submitted by: Ralph Cavanagh
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APPENDIX 1

PROPOSAL: Replace section E.7 of the proposed Long-Term Intertie Access Policy with the following:

7. Implications for BPA's Obligation to Serve Pacific Northwest Load

It is BPA's intent that the granting of Assured Delivery under subsections E.2, E.3, and E.4 not decrease BPA's ability to serve Pacific Northwest load. To ensure this result, the granting of Assured Delivery will be conditioned on a satisfactory contractual commitment by the Scheduling Utility at the time Assured Delivery is granted that: (1) the Scheduling Utility waives any right, contractual or otherwise, to purchase from BPA requirements to meet the Scheduling Utility's deficit up to the cumulative amount of Assured Delivery that is granted; and (2) the Scheduling Utility agrees that its increased requirements on BPA, when the Scheduling Utility notifies BPA of increased load requirements under the provisions of the Scheduling Utility's Power Sales Contract with BPA, will be reduced by the cumulative amount of Assured Delivery that BPA has granted the Scheduling Utility.

EXPLANATION: Most of the language from the original section E.7 is retained intact. However, what was formerly optional (a waiver of Scheduling Utilities' rights to replacement BPA power) is now required as a condition of access for firm power transactions. In other words, utilities may not rely on the rest of the region to provide financial support for their firm sales; BPA should not have to acquire resources to replace power that other utilities have sold out-of-region.

APPENDIX 2

PACIFIC POWER & LIGHT COMPANY
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Rodney M. Boucher
Vice President

December 23, 1986

James L. Jones, Deputy Power Manager
Bonneville Power Administration
P. O. Box 3621
Portland, Oregon 97208

Dear Jim,

Pacific Power & Light Company (Pacific) understands that pursuant to 16 USC Section 837(d), the Administrator is not obligated to acquire new resources to meet Pacific's regional firm energy requirements to the extent that such energy requirements are created by the sale of firm energy by Pacific to California utilities from resources which are included in the resources for service to Pacific's firm load in the region.

Very truly yours,

RMB/FEH:rs

APPENDIX 3

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AN ACCESS POLICY FOR THE PACIFIC NORTHWEST-PACIFIC SOUTHWEST INTERTIE: RECOMMENDATIONS TO THE BONNEVILLE POWER ADMINISTRATION AND THE NORTHWEST POWER PLANNING COUNCIL

Submitted:

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V. Selling Surplus Conservation Over the Intertie

Bonneville's Intertie Access Policy can be used to solve one of the thorniest legal impediments to a sale: the 60-day/five-year pullback provisions in § 9(c) of the Regional Act and the Northwest Preference Act (16 U.S.C. § 839f(c) & §§ 837 et seq.). Section 9(c) binds the Administrator to the provision of the Northwest Preference Act that prescribes limits and conditions on any contract for the sale or exchange of surplus energy for use outside the region, or for use inside the region as replacement for energy exported by a non-federal utility. Such contracts must provide that BPA

> . . . after giving the purchaser notice not in excess of sixty days, will not deliver electric energy under such contract whenever it can reasonably be foreseen that such delivery would impair his ability to meet, either at or after the time of such delivery, the energy requirements of any Pacific Northwest customer. 16 U.S.C. § 837b(a).

In addition, any contract for the disposition of surplus peaking capacity must provide that BPA "may terminate the contract upon notice not in excess of sixty months." 16 U.S.C. § 837b(c). Given BPA's statutory option to cease deliveries of energy upon 60-day notice and of capacity upon 5-year notice, the value of firm surplus that BPA might offer to sell outside the region is diminished substantially.

A potential solution to this problem emerges from § 9(d) of the Regional Act, which excludes from the reach of § 9(c) all sales of power from "any existing or new non-Federal resource if such sale, exchange or disposition does not increase the amount of firm power the Administrator would be obligated to provide to any customer." 16 U.S.C. § 839f(d).

Conservation is a "resource," as that term is elsewhere defined in the Regional Act. § 3(19)(B), 16 U.S.C. § 839a(19)(B). Assume that California can get relatively cheap firm power by paying the entire cost of a "surplus" conservation

program in the service territory of a Northwest utility ("Utility X"). This program then reduces the amount of BPA power needed by Utility X. Utility X should nonetheless be able to buy the full amount of BPA power that it would have needed but for the conservation program, and should be able to send the excess (of purchases over post-conservation needs) down the Intertie, on the theory that:

(1) the excess represents the "power ... from [a] new non-Federal resource" under § 9(d) -- it equals the "actual or planned load reduction resulting from direct application of a renewable energy resource ... or from a conservation measure," as specified in § 3(19)(B);

(2) the sale to California "does not increase the amount of firm power the Administrator would be obligated to provide to any customer," because the Administrator is simply providing Utility X the amount of power that Utility X would have needed had it not developed its new "non-Federal" conservation resource.

Section 9(c) restrictions are avoided through this process, and a viable mechanism for long-term firm power sales emerges as a result. We urge BPA to incorporate this analysis in the Intertie Access Policy, and to provide priority access to sales of Northwest "conservation power" created by out-of-region investment. Our proposal creates a way for any BPA customer to participate in Intertie transactions, regardless of whether that customer owns generating capacity (which many do not).

APPENDIX 4

BURNING COAL FOR EXPORT: ENVIRONMENTAL and ECONOMIC DIMENSIONS OF NORTHWEST INTERTIE SALES TO CALIFORNIA

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SUMMARY

Our analysis of four years (1982-1985) of Northwest coal generation and Intertie sales indicate that the vast majority of coal-fired electricity in the Northwest is sold for export. During this period, 93% of total coal generation was sold south, averaging 67% of net (exclusive of Canadian sales) Intertie traffic.

Coal burning in the Northwest released almost 500,000 tons of sulfur dioxide (SO_2) into the atmosphere over the four year period, or an average of 125,000 tons/yr. If all of the Northwest coal plants were run at peak capacity, over 180,000 tons of SO_2 would be emitted each year. Sulfur dioxide emissions are considered the primary cause of acid rain and dry deposition.[1/]

Coal plants are run according to a "dispatch order". The dispatch order dictates the order in which plants are run or shut down; generating plants are usually shut down or run based on their operating costs. This is known as "economic" dispatch.

Our work indicates that the Northwest system does not operate on an economically optimal basis. We ran a simple economic dispatch model for 1984 which showed that if Northwest coal plants were run in this manner, sulfur dioxide emissions would be reduced by 10-15% and thermal system operating costs would be reduced by 9-11% as well.

We also constructed a simple model of an environmental dispatch of Northwest coal plants for 1984 that would reduce sulfur emissions by 28-32% or between 35,000 and 40,000 tons per year, while only increasing regional costs by $12 million, or roughly a 0.037 cent per kilowatthour surcharge on export sales for the year.

Another surprising result of our comparison of actual 1984 dispatch with economic and environmental dispatch cases was that the two Centralia units were run far in excess of either an economic or an environmental optimum. Using economic dispatching criteria -- expensive plants run last and shut off first -- Centralia was run 83% above optimum. Under environmental dispatching criteria -- dirty plants are run last and shut off first -- Centralia produced over ten times the power it would have at an optimum generation level. At the same time, Colstrip 1 and 2, which are two of the cleanest and cheapest plants in the region, were run 20% below the environmental and economic ideals.

Clearly, the region loses from this sort of system operation. BPA's Intertie Access Policy could be used to encourage a more rational and environmentally sound dispatch order and this possibility should be explored.

BACKGROUND

Currently, the Pacific Northwest (NW) has an excess of electrical generation capacity. Since 1970, California has provided a ready market for the region's power surpluses, which are sold by the Bonneville Power Administration (BPA) and several large Northwest utilities. Electricity sales to California, which provided about one quarter of Bonneville's revenue in 1985, have been used to reduce the regional cost of the Northwest power surplus. Since much of California's baseload is served by gas- and

oil-fired plants, which have volatile and often very high operating costs, cheaper Northwest power is very attractive to southern utilities for energy purposes as well as capacity purposes. Recently, lower oil and gas prices have reduced California's willingness to pay for imported power. However, this situation is unlikely to continue indefinitely.

COAL GENERATION AND INTERTIE SALES

Figures 1 & 2 show the relative percentage share of monthly net Northwest Intertie sales attributable to coal and non-coal generation between 1982 and 1985 and the annual percentage of gross coal generation sold for export. (For more detail, see Tables 2 - 5)

By comparing the amount of electricity generated by coal plants in the region with Intertie sales on a monthly basis (to avoid misleading results due to seasonal fluctuations in power sales and coal generation), we can see how much of the coal-fired electricity was effectively produced for export. As described below, **coal is burned almost exclusively for export**.

First, we need to determine how much of which coal plant serves the region. Table 1 below summarizes the regional capacity of each plant.

Table 1

Plant	Peak Capacity[a/]	"Regional Availability"[b/]
Boardman	530 MW	100 percent
Jim Bridger 1-4	2000 MW	100 percent
Centralia 1 & 2	1280 MW	100 percent
Colstrip 1 & 2	640 MW	66 percent
Colstrip 3 & 4	1400 MW	80 percent
J.E. Corette	163 MW	32 percent
Valmy 1 & 2	530 MW	50 percent

Notes: a) From: Northwest Conservation and Electric Power Plan, Vol II, Northwest Power Planning Council, 1986, p. 6-A-10

b) Personal communication by telephone with Jeff King and John Fazio, Northwest Power Planning Council, August 7, 1986. Except Jim Bridger; personal communication by telephone with Don Case, Manager of Power Statistics, Pacific Power and Light, May 28, 1986. As per PNUCC convention, 32% of Montana Power's share of Colstrip 1-4 and Corette is assumed to serve regional loads over the period analyzed. This fraction fluctuates between 32% and 40% depending upon the year.

While it is impossible to tell which electrons flowing over the Intertie were generated by a fossil fuel plant or by water spilled over a dam, it is valid to equate coal

burning with Intertie sales when generation figures and Intertie sales are compared on a monthly basis. This is illustrated in the following example.

The laws of physics dictate that if electricity is going to be flowing, it must have a source (supply) and it must have a destination (demand). This flow of electricity must be in balance or equilibrium. This balance can be analogized to the depth of water in a bathtub. In this hypothetical bathtub, the water level must remain constant (in equilibrium) so that if a new in-flow is introduced, an equivalent outflow must occur. Thus, if someone poked a hole in the side of the tub, a faucet would automatically be turned on at an equal flow rate so that the equilibrium could be maintained. So, even though the exact water molecules from that particular faucet may not be leaving through that particular drain, it is clear that without the addition of the new draw, the faucet would have never been turned on in the first place. To relate the hypothetical example to the real world situation, simply substitute the Intertie for a drain and coal plants as faucets.

In sum, because coal plants have the highest operating costs in the region, coal plants logically are the marginal resource for small load variations, except as noted herein when water is being spilled while coal is being burned. Since Intertie sales are non-regional, they represent marginal demand. Therefore, in general, the net effect of Intertie sales is to turn on coal plants.

Tables 2 - 5 compare net Northwest Intertie sales with gross coal generation and coal burned to meet Intertie commitments and give the relative percentages of Intertie traffic represented by coal energy and the fraction of coal-fired electricity being sold for export. When Intertie sales exceed coal generation, we can assume that coal was being burned for export.[2/] If, on the other hand, coal generation exceeds Intertie sales, we can assume that regional demand exceeded available capacity. When coal generation exceeded Intertie sales, the two right-hand columns are printed in bold type. As can be seen from the Tables, this situation occurred only 13 times over the 48 month period examined.

Table 2

Year/ Month 1982	Net NW Intertie Sales (aMW)	Gross Coal Generation (aMW)	"Intertie" Coal Generation (aMW)	Coal As % of Intertie Sales	% Coal to Intertie Sales
January	2820	3079	2820	100%	92%
February	2904	2001	2001	69%	100%
March	3653	1068	1068	29%	100%
April	3418	1075	1075	31%	100%
May	3566	1015	1015	28%	100%
June	3587	822	822	23%	100%
July	3971	1161	1161	29%	100%
August	3709	2523	2523	68%	100%
September	3585	2793	2793	78%	100%
October	3377	2908	2908	86%	100%
November	3341	2978	2978	89%	100%
December	2986	2823	2823	95%	100%
Annual Total	3410	2021	1999	59%	99%

Table 3

Year/ Month 1983	Net NW Intertie Sales (aMW)	Gross Coal Generation (aMW)	"Intertie" Coal Generation (aMW)	Coal As % of Intertie Sales	% Coal to Intertie Sales
January	3797	2083	2083	55%	100%
February	3129	1648	1648	53%	100%
March	3099	1076	1076	35%	100%
April	3159	945	945	30%	100%
May	3041	1189	1189	39%	100%
June	3499	1084	1084	31%	100%
July	3979	1597	1597	40%	100%
August	3658	2530	2530	69%	100%
September	2881	2906	2881	100%	99%
October	2834	3303	2834	100%	86%
November	3269	2652	2652	81%	100%
December	2757	2902	2757	100%	95%
Annual Total	3258	1993	1940	60%	97%

Table 4

Year/ Month 1984	Net NW Intertie Sales (aMW)	Gross Coal Generation (aMW)	"Intertie" Coal Generation (aMW)	Coal As % of Intertie Sales	% Coal to Intertie Sales
January	3344	2666	2666	80%	100%
February	3860	2153	2153	56%	100%
March	3907	1677	1677	43%	100%
April	3846	1079	1079	28%	100%
May	3906	1340	1340	34%	100%
June	3618	1132	1132	31%	100%

Table 4 Continued.

July	3778	2761	2761	73%	100%
August	3965	3870	3870	98%	100%
September	3767	3834	3767	100%	98%
October	3476	4087	3476	100%	85%
November	3192	3487	3192	100%	92%
December	3490	3881	3490	100%	90%
Annual Total	3679	2664	2550	69%	96%

Table 5

Year/ Month 1985	Net NW Intertie Sales (aMW)	Gross Coal Generation (aMW)	"Intertie" Coal Generation (aMW)	Coal As % of Intertie Sales	% Coal to Intertie Sales
January	3854	3022	3022	78%	100%
February	4021	3457	3457	86%	100%
March	2789	3722	2789	100%	75%
April	4147	1981	1981	48%	100%
May	4378	1460	1460	33%	100%
June	3876	2189	2189	56%	100%
July	2640	4413	2640	100%	60%
August	2791	4793	2791	100%	58%
September	4027	3880	3880	96%	100%
October	3773	3648	3648	97%	100%
November	3041	3400	3041	100%	89%
December	2401	3572	2401	100%	67%
Annual Total	3478	3295	2775	80%	84%
4-year Averages					
	3456	**2493**	**2316**	**67%**	**93%**

As can be seen above, coal-fired electrical generation in the region averaged 67% of net Northwest (independent of Canadian) Intertie sales over the four-year period and 93% of total coal generation was sold for export. As could be expected, coal-fired electricity generated usually exceeded Intertie sales between the months of September and December, when hydro capacity is lowest.

DISPATCH ORDER

A "dispatch order" is a ranking for how the power system will meet the demands placed on it. Ostensibly, the Northwest power system operates on a least-cost-first basis. In other words, as system needs go up and down, cheap plants are run first and shut off last and expensive plants are run last and shut down first. This is known as an "economic" dispatch order.

Our economic dispatch model (See Table 8) shows that the Colstrip plants, which are the cheapest and cleanest in the region, should have been run 20% more between 1982 and 1985 than they actually were; the Jim Bridger plant was similarly underutilized. Centralia, which is one of the region's most expensive and certainly its dirtiest coal plant, was operated 83% above what would be considered an economic optimum. From an environmental perspective, the situation is worse still -- as the next section demonstrates, production should have been cut by about 90% (and replaced with generation from cleaner-burning units).

Several reasons have been offered as to why Centralia runs when economic considerations would seem to dictate otherwise. The Centralia plant has a small coal pile and a take-or-pay coal contract. This means that the plant must pay for coal regardless of production levels, and lacks the capacity to stockpile unburned fuel. Ostensibly, these two reasons are why Centralia is operated in an economically and environmentally irrational way. Yet neither consideration is immutable. More land could be purchased to increase the size of the coal pile. The coal contract was made with a subsidiary of one of Centralia's owners and should be negotiable.

POLLUTION FROM COAL-FIRED PLANTS

Additional power transfers could dramatically increase the amount of coal generation in the region, with a correspondingly large environmental impact. Among the emissions of particular concern are sulfur and nitrogen compounds, which -- after undergoing chemical changes in the atmosphere -- fall back to earth in the form of sulfuric and nitric acids and solid sulfate and nitrate depositions.

Between 1982 and 1985, burning coal for export released between 105,000 tons and 135,000 tons of SO_2 into the atmosphere each year[3], approximately 90% of which came from two plants: Centralia and Jim Bridger. Centralia is particularly dirty; despite being a little over half as big as the Bridger complex, Centralia has greater emissions, accounting for **over 50%** of the SO_2 produced by generating electricity in the region.

The amount of pollution a plant generates is contingent on a number of factors. The sulfur content of the coal and the system of Flue Gas Desulfurization (FGD)--or "scrubbing"--affect output the most dramatically. The amount of heat coal gives off as it

burns (Btu/lb) also influences the efficiency--or heat rate--of coal burning (hence the quantity), which in turn affects the sulfur dioxide emitted. Annual emissions are also calculated from how much a plant is run, which is dependent upon when the plant is dispatched. Table 6 gives a summary of the yearly amount of SO_2 each Northwest coal plant generated between 1982 and 1985.

Table 6
SO_2 Emissions (1000 Tons)[a]

Plant	1982	1983	1984	1985	1985 Emission Rate (lbs/MWH)
Boardman[b]	0	2.252	2.930	2.422	7.6
Jim Bridger 1-4	44.650	38.697	45.671	63.656	9.7
Centralia	54.565	63.553	64.360	74.127	18.8
Colstrip 1 & 2	3.160	2.630	3.835	4.032	3.2
Colstrip 3 & 4[c]	--	--	1.130	1.131	.76
J.E. Corette	1.178	1.290	1.447	2.009	17.0
Valmy 1 & 2[d]	2.448	2.141	2.650	4.657	6.5

Notes: a) Regional generation figures only. For sources, see endnotes.
b) Boardman not run in 1982.
c) Colstrip 4 not included in this analyis. Colstrip 3 on line in 1984.
d) Valmy 2 not on line until 6/85.

ENVIRONMENTAL AND ECONOMIC DISPATCH: A CASE STUDY

The Bonneville System Analysis Model (SAM) predicts the regional load and uses least-cost criteria to dispatch the coal plants to meet the demand. Figure 3 shows the dispatch order predicted by the System Analysis Model and the "variable" or running costs the dispatch order is predicated upon.

Figure 4 portrays the environmental dispatch order of the Northwest's coal plants. The dispatching criterion is based upon the number of pounds of SO_2 generated per megawatt hour of generation. In an environmental dispatch order, dirty plants have the lowest priority, while the clean plants are run more.

Figure 3

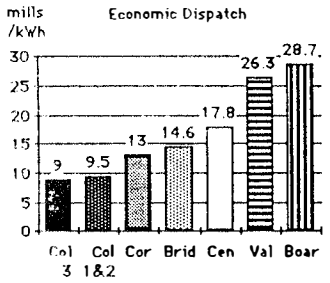
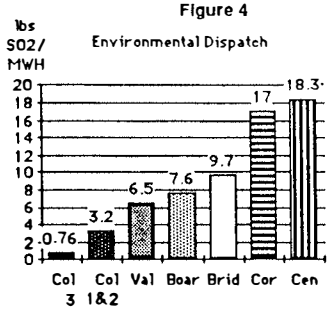


Figure 4



To see how the actual dispatch order compared with idealized scenarios, we constructed a simple model that dispatched Northwest coal plants in the most economically and environmentally expedient fashion. The environmental dispatch order was determined using the emissions rate calculated over the period of 1982 -- 1985 for each coal plant. The economic dispatch order is from the BPA System Analysis Model.

The model used actual generation for a particular year--in this case 1984--and dispatched plants at a pre-determined monthly capacity (Table 7) in an economically or environmentally optimal fashion until the load had been met. When determining the level at which the plants should run, we set up two cases: a "capacity factor" case, which assumes that the annual average generation does not exceed a 70% capacity factor (based on rated peak capacity) and an "equivalent availability" case which assumes availability (and operation) at 75% of peak capacity on an annual basis. All generation mentioned is regional generation. In other words, 100% of Colstrip 1 & 2's regional output is 66% of its total output.

Table 7
Dispatch Model Monthly Capacity Factors

Month	Equivalent Availability Case[a]	Capacity Factor Case[b]	Month	Equivalent Availability Case	Capacity Factor Case
January	80% of Peak	80% of Peak	July	80 % of Peak	60% of Peak
February	70% " "	70% " "	August	100% " "	100% " "
March	45% " "	40% " "	September	100% " "	100% " "
April	40% " "	30% " "	October	100% " "	100% " "
May	40% " "	35% " "	November	100% " "	100% " "
June	40% " "	30% " "	December	100% " "	100% " "

a) Assumes all coal plants run at a 75% equivalent availability.
b) Assumes all coal plants run at a 70% capacity factor.

For example, in January 1984, about 1.95 million MWH of actual generation took place. The environmental model ran Colstrip 1, 2 & 3, Valmy 1, and Boardman at 80% of regional peak capacity, and Jim Bridger 1-4 at 65% of regional peak capacity in order to meet that particular load.[4] Corette and Centralia were left idle. Compared with what acutally happened, this month's dispatch removed over 4,500 tons of SO_2 at a cost of roughly $1.3 million -- less than $300 per ton of sulfur dioxide removed. For all of 1984, the environmental dispatch would have removed 34-39,000 tons of sulfur dioxide at a cost of roughly $12 million or between $300 - $350 per ton of SO_2 removed. Even using very conservative assumptions, scrubber systems cost upwards of $600 per ton of sulfur dioxide removed.[5]

We also ran an economic model, which dispatched the plants by variable cost, and came up with some surprising results: costs were reduced by 9-12% or $31-$38 million while sulfur emissions were also reduced 10-15% or 12-19,000 tons. The generation makeup under these scenarios would be quite different, as summarized in Table 8 below.

Table 8
Comparison of Dispatch Cases with Actual 1984 Generation[a]

Plant	Actual Generation (MWH)	Under Environmental Dispatch	Under Economic Dispatch
Boardman	750,317	3,466,836	0
Jim Bridger 1-4	10,055,294	11,909,408	12,948,383
Centralia	6,440,873	537,925	3,514,603

Table 8 Continued.

Colstrip 1 & 2	2,191,264	2,763,003	2,763,003
Colstrip 3	2,875,535	3,663,072	3,663,072
J.E. Corette	171,765	155,200	341,189
Valmy 1	845,730	830,732	0

Notes: a) "Regional" generation figures only. Based on annual equivalent availability of 75%.

It is not really surprising that the ideal case varied so greatly from the actual dispatch; different utilities have different requirements, priorities and resource mixes. Yet the region could reduce SO_2 emissions considerably through better coordination of its coal plants.

Dispatch is not a panacea for controlling sulfur dioxide emissions from the Northwest, however. Once loads reach a certain point, all coal plants will be run flat out regardless of environmental or economic considerations. Our findings are an additional argument for policies designed to hold loads at or near current levels.

Table 9
Summary of Dispatch Cases
Comparison with actual 1984 generation

	Actual Dispatch	Environmental Dispatch-EA[a]	Environmental Dispatch-CF[b]	Economic Dispatch-EA	Economic Dispatch-CF
Emissions (tons SO_2)	122,023	83,231	87,901	103,256	110,050
difference		-38,792	-34,123	-18,767	-11,974
Cost (million $)	354.085	366.040	366.362	316.138	322.920
difference		+11.98	+12.28	-37.92	-31.16

Notes: a) Assumes an annual equivalent availability of 75%.
b) Assumes an annual capacity factor of 70%.

ISSUES FOR FURTHER STUDY

--Institutional barriers to economically and environmentally optimal generation resource mixes. The diversity of ownership of the Northwest's thermal generating stations creates institutional barriers that cause the thermal system to run dirty and expensive plants when there are cheaper and cleaner alternatives available. This harms the region both from an economic and an environmental perspective. More research is needed on the nature of these barriers and the extent to which the Intertie Access Policy can be used to remove them.

--Environmental impact of other pollutants. Burning coal produces a number of other harmful emissions products in addition to sulfur dioxide. Carbon dioxide, which has been linked to global warming trends; nitrogen oxides, which also contribute to acid rain and dry deposition; and particulates, which can cause respiratory disease, are all emitted in significant quantities by coal-fired facilities. Are environmental dispatch strategies available for significantly reducing these emissions along with SO_2?

--What are the most cost-effective means to reduce emissions? Should Centralia be run less, install scrubbers or burn cleaner coal? If Centralia burned coal as clean as Boardman's, plant SO_2 emissions would be reduced by roughly 60% or 35,000 to 40,000 tons per year. Or, should Colstrip and Boardman be used to displace Centralia (environmental dispatch)?

--**Existence and impact of "acid shock"** from runoff on smolts and other young fish. Since the heaviest coal burning takes place during the winter months, there is potential for significant accumulation of acidity in the snow pack. This potential should be examined and the impact on smolts evaluated.

--Impact of Canadian hydro. If Canada reaches any sort of long-term power sale agreement with California utilities and/or Bonneville, what impact will this have on regional coal burning?

CONCLUSION

Closer coordination of the region's coal-fired plants could bring about substantial improvements in Northwest air quality. Use of the Intertie Access Policy to encourage a dispatch order that will minimize environmental damage from coal combustion should be assessed more fully.

FOOTNOTES

1. Committee on Monitoring and Assessment of Trends in Acid Deposition; Acid Deposition, Long-Term Tends National Academy of Sciences, National Academy Press, Washington DC, 1986, Chs 6-8; S. Belike, Acid Precipitation - The Current Situation in Europe Elektrizitaetswirtschaft, Vol. 82, No. 17/18 pp. 638 - 642, 1983. (Translated from German)

2. BPA staff offer one caveat of uncertain magnitude. There may be occasions on winter days when Northwest coal plants are operated to meet regional peaks, at times of day when there is little or no Intertie commerce; coal-related Intertie sales later on the same days arguably do not belong in our "export" category, because the plants are running primarily for domestic purposes. Our model lacks the ability to discriminate that finely. On the other hand, it is unclear to what extent this particular use of coal plants reflects institutional rather than operational constraints. The region normally has ample hydro peaking reserves, and BPA has contracts with some, but not all, Northwest utilities that provide for displacement of coal with surplus hydro at peak periods. We invite further investigation of these issues, but we do not believe that they will affect our conclusions significantly.

3. If the region's coal-fired units were operated at 100% of their reliable capacity, approximately 180,000 tons of SO_2 would enter the atmosphere each year.

4. When determining the relative availability of each plant during each month, we examined historical data and assigned capacity factors according to how much coal generation occurred. For example, even though January is a winter month, historical coal-fired generation is lower than in the September through December months. The model allows for roughly six months of minor and major maintenance in January through June to prepare for the heavier months of July through December.

5. Using Centralia as an example, we assumed that installed cost of scrubbers was $100/KW (range, according to EIA, is $87/KW to $282/KW) and annual O & M was 5 mills/kWh (EIA range: 4.8 mills to 16.9 mills). We used an assumed lifespan of 30 years for the scrubber system and estimated that it would remove 60,000 tons of SO_2 per year -- roughly equivalent to 90% of emissions at 1984 generation levels -- 90% percent sulfur dioxide removal is standard efficiency for modern scrubber systems. O & M calculation assumes 6,441,000 MWH (≈ 1984 level) of generation. Calculation: Total cost = $1,094,150,000 ($966,150,000 O & M + $128,000,000 installation) ÷ 1,800,000 tons SO_2 removed (60,000 tons/yr for 30 years) = $608/ton of sulfur dioxide removed. See EIA Cost and Quality of Fuels for Electric Utility Plants (item 3 below) for cost information and efficiency levels.

Sources:

1. Intertie Sales Figures.

"1981-1985 Net Schedule Interchange (MWH)", computer printout, Bonneville Power Administration; record of Intertie transactions. Obtained from Kathy Hoffman, Hydraulic Engineer, Bonneville Power Administration.

2. Electrical Generation and Coal Consumption Figures.

Note: The Energy Information Administration does not disaggregate the Colstrip plants. For 1984 and 1985, we assumed that Colstrip 1 & 2 provided 48% of the total output listed and Colstrip 3 provided 52% of the output. This is based on the relative percentage of peak capacity for each plant.

1982 generation figures: Energy Information Administration Form 759, except for Valmy, which was taken as an average of 1983 and 1984 and Boardman which was taken from the Bonneville Power Administration "Monthly Power Situation", January-December 1982.

1983 generation figures: Electric Power Quarterly, 1983-1Q, Energy Information Administration, July 1983. Table 13: pp. 88, 98, 100, 106, 154, 164, 166, 172, 220, 230, 232, 238; Electric Power Quarterly, 1983-2Q, Energy Information Administration, September, 1983. Table 13: pp. 99, 109, 112, 117, 167, 177, 180, 185, 235, 245, 248, 253; Electric Power Quarterly, 1983-3Q, Energy Information Administration, January, 1984. Table 13: pp. 93, 103, 104, 106, 111, 161, 171, 174, 179, 229, 239, 240, 242, 247; Electric Power Quarterly, 1983-4Q, Energy Information Administration, April, 1984. Table 13: pp. 95, 105, 107, 113, 164, 174, 176, 182, 233, 243, 245, 251;

1984 generation figures: Electric Power Quarterly, 1984-1Q, Energy Information Administration, July, 1984. Table 13: pp. 94, 104, 106, 112, 162, 172, 174, 180, 230, 240, 242, 246; Electric Power Quarterly, 1984-2Q, Energy Information Administration, October, 1984. Table 13: pp. 82, 92, 94, 100, 150, 160, 162, 168, 218, 228, 230, 236; Electric Power Quarterly, 1984-3Q, Energy Information Administration, January, 1985. Table 13: pp. 94, 104, 106, 112, 162, 172, 174, 180, 230, 241, 242, 248; Electric Power Quarterly, 1984-4Q, Energy Information Administration, April, 1985. Table 13: pp. 82, 92, 95, 100, 150, 160, 168, 218, 228, 231, 236;

1985 generation figures: Electric Power Quarterly, 1985-1Q, Energy Information Administration, August, 1985. Table 13: pp. 100, 109, 110, 112, 117, 167, 176, 179, 184, 234, 243, 244, 246, 251; Electric Power Quarterly, 1985-2Q, Energy Information Administration, November, 1985. Table 13: pp. 92, 101, 102, 104, 110, 159, 168, 170, 175, 177, 226, 235, 236, 238, 244; Electric Power Quarterly, 1985-3Q, Energy Information Administration, January 1986. Table 13: pp. 82, 92, 94, 100, 150, 159, 160, 162, 168, 218, 227, 228, 236; . Electric Power Quarterly, 1985-4Q, Energy Information Administration, April 1986. Table 13: pp. 90, 100, 102, 109, 158, 168, 170, 177, 226, 236, 238, 246.

Thermal Resources Data Base, Pacific Northwest Utilities Conference Committee, October 1984. Table 1-1: pp. 7, 8, 13; Table 1-2: pp. 14, 19; Table 1-3: pp. 20, 25.

3. SOX Emissions.

Estimates of Sulfur Oxide Emissions from the Electric Utility Industry. E. H. Pechan Associates, Volumes I & II, November, 1982, pp. 20-22. --for emission factor, scrubber factor calculation, ash sulfur retention factor and SOX emissions calculational methodology for all plants but Colstrip.

Colstrip emissions were based on source tests conducted by the Air Quality Division Montana Department of Health and Environmental Science. Personal communication by telephone with Harry Keltz Montana Department of Health and Environmental Science -- Air Quality Division July 28, 1986.

--For average coal sulfur content, capacity scrubbed and heat rate:
Cost and Quality of Fuels for Electric Utility Plants-1981 Annual, Energy Information Administration, September, 1982. Table 28: pp. 27-28;
Table 56: pp. 102, 105, 106, 107; Table 57: pp. 140, 146, 148, 152.
Cost and Quality of Fuels for Electric Utility Plants-1982 Annual, Energy Information Administration, August, 1983. Table 28: pp. 26-27; Table 56: pp. 111, 113, 114, 116; Table 57: pp. 152, 158, 160, 164; Cost and Quality of Fuels for Electric Utility Plants-1983 Annual, Energy Information Administration, July, 1984. Table 37: pp. 35-38; Table 59: pp. 86, 88, 90; Cost and Quality of Fuels for Electric Utility Plants-1984 Annual, Energy Information Administration, July, 1985. Table 37: pp. 28-32; Table 59: pp. 95, 101, 104, 108

4. Dispatch Cost Information
Bonneville Systems Analysis Model, personal communication with Cindy Horvath, BPA, May 29, 1986

Construing Regional Act § 9(i): Protecting BPA and the Northwest from Ill-Advised Power Exports

The Pacific Northwest Electric Power Planning and Conservation Act requires BPA, in making its transmission services available, to give priority to projects under construction in December 1980, if such projects' capability has first been offered unsuccessfully to BPA itself. 16 U.S.C. § 839f(i)(3). This agency obligation is hedged with numerous exceptions, which speak to practicability, interference with BPA's power marketing program, operating limitations, and pre-existing contracts. Id. Moreover, § 9(i) is a grant of entitlement only to a preferred place in line for whatever services, subject to whatever conditions, that BPA chooses to offer. Congress emphatically did not give sponsors of recently-constructed power plants automatic access rights to what is, after all, a publicly owned transmission resource.

Yet BPA's proposed policy comes perilously close to offering precisely that. Owners of 9(i)(3) resources can sell as much of those resources' regional capability as they choose, regardless of the size of the owners' overall surplus. The DEIS can be searched in vain for an assessment of the regionwide implications of this invitation to irresponsibility. With at least 4000 MW of potentially qualifying resources at stake, NEPA compels far more searching scrutiny of this proposal. No part of the DEIS contemplates the twenty-year sale of a substantial fraction of this resource, and no part of the policy imposes the environmental conditions that would be needed to prevent such a sale from severely damaging the Northwest.

The invitation that BPA proposes to extend to 9(i)(3) owners is patently unnecessary. To begin with, any environmental constraints that BPA imposes on Intertie access generally can also be applied to 9(i)(3) owners. It is certainly reasonable to characterize in this fashion the constraint now represented by policy §2.c, which provides that "the total maximum peak delivery" under a long-term contract may not exceed "the Scheduling Utility's average firm energy surplus."

There are obvious environmental justifications for such a constraint, which acts to limit the extent to which the region's air and water can be put at risk in the name of export revenues. Owners of 9(i)(3) resources are entitled to an access priority, then, to the extent of their systems' surpluses -- and no more. They should also provide the same waiver of rights to BPA replacement power that is recommended in Section II of our comments, while meeting the same transaction-specific environmental guidelines that are described in section III. And they emphatically should anticipate lengthy and enlightening transaction-specific NEPA proceedings if they attempt 20-year sales that may require construction of additional generating capacity in the Pacific Northwest.

Department of Energy

625 MARION ST. NE. SALEM. OREGON 97310 PHONE 378-4040 TOLL FREE 1-800-221-8035

January 15, 1987

John Taves - P
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208

Dear John:

Attached are the Oregon Review Committee's comments on the draft Intertie Development and Use Environmental Impact Statement (IDU-EIS). The first set of comments amplify on the oral testimony we presented at the Portland and Klamath Falls public hearings. The second set are the written comments of individual committee members.

Thank you again for your help and cooperation. It's been a pleasure working with you, Tim, Inez and the other BPA staff members involved with the project.

Sincerely,

John Savage, Sr. Energy Analyst
Planning Program

JS:js
3291J

WRITTEN COMMENTS OF THE OREGON REVIEW COMMITTEE
ON THE INTERTIE DEVELOPMENT AND USE ENVIRONMENTAL IMPACT STATEMENT

The Oregon Review Committee has reviewed BPA's draft IDU EIS and offers these comments:

o BPA should show the California-Oregon Transmission Project's range of likely income and rate impacts to the Pacific Northwest (Section 4.8). The need for the third AC line must be determined based on benefits to the region. The draft IDU EIS does not show all the likely revenue and rate impacts to the region from the proposed power line.

  In the final EIS, BPA should show the likely economic impacts to the Pacific Northwest for the DC and maximum upgrade cases assuming its proposed Intertie Access Policy is adopted. This analysis should at least include:

  * Revenues from non-firm sales (Page 2-13).

  * Revenues from extra firm sales.

  * Revenues from wheeling power.

  * Benefits from deferring new plants in the region (Page 4.2-29).

  * Extra costs of production in the Pacific Northwest, excluding British Columbia (Pages 4.8-3 and 4.8-4).

  * The capital, operation, and maintenance costs of substation, lines, and interconnected systems splitting out reinforcement costs and substation and line costs in Oregon (Pages 4.8-2 and 2-2) and,

  * Measured impacts on average retail rate levels (Page 4.8-4).

o BPA should test the sensitivity of its results (Section 4.8). The money we can earn selling power to California strongly depends on the unpredictable path of fuel prices and energy demands. The draft IDU EIS relies on a dated fuel price forecast. And, it shows results only for a single set of fuel price and energy demand forecasts.

  In the final EIS, BPA should show results using its 1986 low, medium, and high fuel price and energy demand forecasts. Because of uncertainty in sales arrangements, BPA should also show results for a likely range of possible firm sales contracts.

o The draft IDU EIS may understate some of the benefits of the third AC (Section 4.8). Our analysis of BPA's detailed study results shows the size of benefits from non-firm sales is sensitive to the assumptions made about expected net revenues after 2005. To estimate the benefits and costs of the upgrades after 2005, BPA escalated the average values for 2001 through 2005 at the expected inflation rate of six percent a year.

  BPA is assuming that net revenues to the Pacific Northwest will not increase after counting for inflation. This is same as assuming that natural gas prices will not increase after counting for inflation. Over the long run, this is unlikely.

  We reestimated project benefits assuming a two percent real annual rate of growth in displacement benefits after 2005. We also assumed a one percent real annual rate of growth in Pacific Northwest incremental production costs after 2005. Total project benefits increase about $90 million.

  Because of the uncertainties of the period after 2005, we cannot recommend specific escalation rates. But, fuel prices should rise faster than inflation. BPA's final EIS should also show results assuming real increases in displacement benefits and Northwest revenues.

  A preliminary comparison of BPA's study results and the results from an analysis by Portland General Electric (PGE) suggests BPA may be seriously understating the possible revenues from non-firm sales to California. Although expected sales shown in the two studies are similar, expected revenues are not. BPA's treatment of the California market as one market may be one reason for the difference.

  In oral comments, PGE posed two concerns about the economic analysis. One, PGE argues that the incremental share of the DC line provided by the Terminal Expansion is not suited for long term firm contracts. Two, they argue that BPA improperly calculated the value of third AC relative to the DC upgrade. They argue that the DC upgrade will be loaded only after existing facilities and the third AC are loaded. BPA should address these concerns.

January 9, 1987

TO: John Savage, ORC Chairman

FROM: Mavis McCormic

SUBJECT: BPA Draft EIS, Intertie Development and Use

GENERAL COMMENTS: Volume 1 presents most of the information I wanted in a clear fashion. The format of Volume 2, however, is not clear at all. I hope the final draft is presented differently.

VOLUME 1:

p1-1 1.2.1 "Suppport acceptable environmental quality;" as a purpose of the Intertie upgrades? Surely environmental quality would be better without them, at least for the Pacific NW.

p1-9 1.4.4.3.1 The statement that BPA receives revenues from power which would otherwise be wasted seems an over-simplification since there would be less cost and the fish would probably benefit if the power was not generated.

p2-2 2.1.1 "It is estimated that, through the year 2002, the PNW would earn $290 million less with the Existing capacity than with Maximum capacity (net present value in 1985 dollars)." What would be the difference for BPA?

p3-18 Figure 3.7 showing less than 1000 aMW firm surplus power for the Pacific NW in 1990-91 casts doubt on the need for the third Intertie.

p4.2-17 Table 4.2.14 shows additional generation in 2002 providing a maximum of 319 aMW which could be handled by the DC upgrade.

p4.8-1 4.8.1 The BPA analysis which indicates that the Maximum upgrade would produce a net loss if used only for nonfirm energy sales makes the question of whether CA would sign long-term firm power contracts important. At present such contracts seem very desirable for the SW, but that could change.

p4.8-2 4.8.2.1.3 The loopflow assumption given here is that capacity is reduced by 300 MW in all cases. In the U.S. General Accounting Office Report to the Secretary of Energy, Expanding the Pacific Northwest/Southwest Intertie--Benefits and Impediments, of November 4, 1983, the problem is described, "Loop flow results from the interconnected operation of the western transmission system, which reduces the effective carrying capacity of transmission lines. Those systems which carry increased electricity on their lines and experience a loop flow problem may suffer from higher transmission losses, possible degradation of system reliability, and reduced capabilities to schedule power to or from other systems." Does the EIS slight the problem?

VOLUME 2

p3 A.14.b.(1) This statement regarding new regional resources seems to present a case where there could be a NW generating plant built to satisfy a firm power sales contract with Assured Delivery on the Intertie to the SW. This eventuality is a major reason for opposition to additional interties.

p7 E.3.a.(3) "when Condition 1 is in effect, pursuant to subsection F.1."...should read F.2.a?

p11 H.3. What other U.S. Extraregional Utilities are being referred to as possible users of Intertie capacity?

p15 Could Exhibit B, or a close approximation, have been derived from the NTIAP for inclusion?

p16 Washington Water has a contract for Intertie access which does not expire until 07/01/91; is this based only on surplus power? Is there an interchange with BPA involved?

The Petition for Review of the DC Upgrade which was filed recently by the Idaho AG would seem to have its basis in concern for the effect on fish (and the No Significant Impact statement) of generating hyodropower for surplus sales. While the EIS goes into fish impacts of operating the third AC Intertie, it seems that additional generation on the Columbia system would have similar impacts, whatever the destination of the energy.

OPINION: The many uncertainties in factors which will determine whether BPA will even recover its investment, the undoubted environmental impacts, and the lack of appreciable benefits to Oregonians make the Intertie look like an undesirable project.

Having just read the BPA Administrator's letter of Jan. 6th, I wonder if the agency should avoid adding to its debt by spending money on the Intertie (from $5 billion in 1975 to $14 billion!).

Department of Fish and Wildlife

506 SW MILL STREET, P.O. BOX 59, PORTLAND, OREGON 97207

January 7, 1987

Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

RE: Proposed Intertie Access Policy and Draft Intertie Development and Use EIS

Dear Ms. Geiger:

The Oregon Department of Fish and Wildlife has reviewed the above referenced Environmental Statement. Department concerns focus on the potential impacts of this proposed action on salmon and steelhead smolt survival at Columbia River dams. We are concerned that the proposed action will reduce spill at those Columbia and Snake river dams which rely on spill as the only means of bypassing downstream migrants around turbines. We are especially concerned now since the U.S. Army Corps of Engineers' recent announcement (December 1986) that they intend to postpone the schedule for bypass installations at The Dalles, Ice Harbor and Lower Monumental dams until the mid 1990's.

The Department maintains a strong committment to restore upriver Columbia salmon and steelhead runs through both the U.S. Canada Treaty and agency-tribal agreements (U.S. vs Oregon). We oppose any action which will diminish the use of spill to bypass juvenile downstream migrants until mechanical bypass systems are operational at all federal projects.

Sincerely,

Michael C. Weland
Assistant Director
Habitat Conservation Division

tfo

FRIENDS OF THE EARTH

16 January 1987

Donna L. Geiger
Public Involvement Coordinator
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212

Dear Ms. Geiger:

We have received and reviewed both Bonneville's Draft Environmental Impact Statement on Intertie Development and Use and the Natural Resources Defense Council position paper on this document. The following are the comments of the Northwest office of Friends of the Earth.

We would like to join with NRDC in complementing Bonneville for building some fairly strong fish and wildlife protection into the Section 6 Conditions for Intertie Access. There is simply no justification for negative impacts to fish and wildlife resulting from energy export through the Intertie.

We would like to endorse NRDC's views that Bonneville should condition transmission access for other utilities' long term sales on a waiver of any Bonneville obligations to replace any part of the power involved; that Bonneville should investigate environmentally preferrable alternatives to current operating procedures in order to reduce coal-related pollution from export sales; and most importantly, that Bonneville should investigate and develop mechanisms to guarantee that conservation can compete on equal terms with power plants for export sales. In addition to endorsing these NRDC positions, we have the following concerns regarding the Intertie Access DEIS.

We do not understand why "New Hydroelectric Plant" is defined as existing only within the Columbia River Basin. Hydroelectric development poses the same potential impacts outside of the Columbia Basin as it does within the Basin. Indeed, given the concentration of electric load growth in the Puget Sound area and the willingness of certain utilities to develop new hydroelectric resources in this non-Columbia Basin area to serve both local and Southwest loads, we see non-Columbia Basin hydro development as being equally serious as new Columbia Basin development. We would like to see the Final EIS include all new hydro development throughout the region in its definition of "New Hydroelectric Plant", or at the very least explain why new non-Columbia Basin hydro projects are not included in the definition and explain how these projects would be reviewed before being allowed access to the Intertie.

Northwest office 4512 University Way NE Seattle, Washington 98105 (206) 633-1661

Section C.3.e.(1) prevents new hydroelectric plants that have substantial adverse impacts on fish and wildlife from gaining access to the intertie. We would rather not see this provision limited to projects located within the Columbia Basin as discussed above. We would also like to see this section expanded to include projects which will contribute to adverse cumulative impacts on fish and wildlife resources. Cumulative impacts have been recognized as a serious problem by resource agencies, Indian tribes, the Northwest Power Planning Council, the Federal Energy Regulatory Commission and virtually every other entity involved with licensing, constructing or operating hydroelectric facilities. There is no reason for Bonneville not to acknowledge cumulative impacts in this extremely important policy document. Furthermore, both the Federal Power Act and the Northwest Power Act acknowledge that power development has the potential to affect non-power resources beyond just fish and wildlife. Recreational and scenic values along with water quality and other environmental values should be included specifically as values to be protected from export energy development. Finally, Appendix IIb of the Northwest Power Planning Council's Fish and Wildlife Program which establishes requirements for Bonneville financial assistance to new hydroelectric development throughout the region should be recognized as one of the conditions for granting access to the Intertie.

Section E.3.a.(2)(a) should also address the potential for new hydroelectric development to contribute to adverse cumulative impacts to fish and wildlife resources.

We hope that these comments are useful to Bonneville in improving what we find to be a generally sound Intertie Access Policy. We look forward to having our specific concerns addressed in the Final Environmental Impact Statement.

Sincerely,

Michael S. Rossotto
MSR:dim

PACIFIC POWER & LIGHT COMPANY
920 S.W. SIXTH AVENUE • PORTLAND, OREGON 97204 • (503) 243-1122

January 16, 1987

Donna Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

The following are the comments of Pacific Power & Light Company (Pacific) regarding Bonneville's proposed Long Term Intertie Access Policy (LTIAP) and the Intertie Development and Use Environmental Impact Statement:

LONG TERM INTERTIE ACCESS POLICY

Definitions

Section A.2. The definition of the Administrator's Power Marketing Program as "the aggregate of BPA's power marketing actions taken and policies developed..." is extremely broad and overreaching. The LTIAP should not be set by actions; rather it should make clear that Bonneville's power marketing actions respond to program policy.

Conditions for Intertie Access

Section C.6. As proposed, this section would preclude a utility from the use of BPA intertie capacity for deliveries to a Southwest customer as long as it had unused contractual or ownership rights to non-BPA transmission facilities, even though such Southwest customer could not be served over such non-BPA facilities. This discriminates against utilities having their own intertie rights. We suggest that this section be revised to reference a "particular market" or "particular utility" rather than "Southwest markets." Also, the policy as proposed could result in economic inefficiencies to the extent that a utility owning or having contractual rights to non-BPA facilities is precluded from using the DC intertie. We suggest that such utilities be allowed under the LTIAP to exchange AC capacity for DC capacity, thereby eliminating such inefficiencies.

Assured Delivery for Intertie Access

Section E.1.a. With respect to the proposed Policy's terms for Assured Delivery and the methodology employed for the preparation of Exhibit B, Pacific is uniquely impacted. Because a portion of Pacific's service territory is by geography nonregional, Pacific's total firm surplus is deregionalized such that only about 70% of its firm surplus is shown in Exhibit B. We use our own transmission facilities to market our nonregional

surplus. By the terms of the proposed LTIAP, however, Pacific must use its own non-BPA facilities to make regional transactions with California entities before it can request the use of BPA's intertie capacity. This would place a double whammy on Pacific by first excluding Pacific's nonregional surplus from Exhibit B, and secondly by requiring Pacific to use its own facilities to market its regional surplus ahead of its nonregional surplus. BPA's policy would deny us the right to market our own nonregional surplus over our own facilities, and would place us in a position of being uniquely discriminated against. BPA must recognize Pacific's unique position in this regard. Pacific suggests that since all of its resources are available to serve its largely regional load, either 1) BPA include all of Pacific's firm surplus in Exhibit B, or 2) reduce Pacific's non-BPA facility capacity which Pacific is required to use prior to receiving Assured Delivery on BPA facilities by the amount of nonregional surplus excluded from Exhibit B.

Formula Allocation Methods

Section F.2.a. The term "spill or in likelihood of spill," is much too uncertain. BPA can declare "Condition 1," and has in the past, whenever it appears likely that future spill will occur. The expected degree of spill and the prospective time-frame for such spill to occur must be reasonably quantified.

Section F.2.a.(2) To limit a Scheduling Utility's formula allocation to the allocable intertie capacity times the ratio of that utility's hydro capacity to the total regional hydro capacity, is arbitrary and clearly discriminates against those utilities who have been required to contribute to Northwest power supplies by constructing thermal resources. As such, it is contrary to the law and legislative history of the intertie which mandates that intertie access be allocated on a nondis-criminatory basis. Furthermore, BPA's basis for such a proposal is unsound, since such an allocation basis does not reflect the total regional surplus, and BPA's nonfirm rate includes all elements of its costs except the residential exchange and DSI reserves. BPA's nonfirm rate is not based solely on hydro resources, nor will BPA's or other utilities' sales over the intertie under Condition 1 be based only on hydro costs even if the Federal system is spilling. This proposed allocation provision is both illogical and unduly discriminatory toward those systems having displaceable thermal resources.

Access for Qualified Extraregional Resources

Section G.1.b and G.1.c. "Extraregional Utilities" is an undefined term.

Procedures for Review of Compliance and Remedies

In sections C(3)(c)(3), E(8), F(2)(d) and I(3) BPA has proposed for itself new, far reaching fish and wildlife responsibilities. These responsibilities could establish BPA as the chief fish and wildlife regulator for nonfederal hydro-electric resources in the region, a role already filled by the Federal Energy Regulatory Commission (FERC) and a variety of state and local entities. While we applaud BPA's apparent goal of protecting fish and wildlife as well as the Administrator's actions or expenditures related to these resources, we fail to see how an additional regulatory layer would benefit the region. In fact, the proposed procedures and decision-making criteria may do nothing more than confound ongoing utility, agency, tribal and interested party efforts by forcing them into yet another administrative process.

The FERC hydroelectric project licensing and license review procedures work. They are comprehensive enough to allow a thorough review of a project's anticipated impacts and flexible enough to account for misjudgements or changes in society's priorities. In addition, Congress has recently strengthened these procedures. Rather than create a new process, BPA should participate in the existing FERC process if concern arises regarding a particular project's influence on the Administrator's fish and wildlife responsibilities.

Further, we believe BPA is too concerned with the prospect that the actions of an individual developer or his project would adversely impact actions or expenditures by the Administrator to protect, mitigate or enhance fish and wildlife. Impacts attributable to an individual project should be mitigated by its developer regardless of the origin of the resource affected. We see no evidence that BPA will be called upon to shoulder any additional risk resulting from the operation of a hydroelectric project operated in compliance with a FERC license.

Furthermore, under PURPA, utilities are required to purchase the output of qualifying facilities (QF). If BPA has concerns with the effects of a particular QF's operation on fish, it should make such concerns known to the developer and the appropriate agencies. Reducing a utility's intertie access by the capacity of a QF alleged to be harmful to fish will neither resolve the problem nor shut down the project.

Pacific also supports the comments of the Pacific Northwest Utilities Conference Committee on this issue.

INTERTIE DEVELOPMENT AND USE, DRAFT EIS

1.4.4.2 BPA's references to its "own intertie" overlooks the fact that these lines were built for all PNW utilities and it was never the intent to grant to BPA nonfirm access to the exclusion or diminution of equitable rights of other utilities for firm access.

2.2.1.6 The "BPA First Option" will unnecessarily and unduly discriminate against a utility which has displaceable thermal resources. Most PNW rate-payers will be hurt by this option; the only beneficiaries will be those customers served by public agencies who already enjoy the lowest possible rates through preference. By BPA's own admission, the "BPA First Option" results in lower intertie export, increased gas and oil usage, and higher sales from the Inland Southwest to California.

4.8 The economic analysis should consider the intertie expansion projects as they would likely be operated, rather than in order of completion. This would show greater benefit to the COTP.

We appreciate the opportunity to provide input on the Long Term Intertie Access Policy.

Sincerely,

Thomas A. Lockhart
Director of Power Planning

TAL/FGB:rs

cc: Merrill Schultz
Intercompany Pool

Pacific Northwest Generating Company
Serving the power needs of our member rural electric cooperatives

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PNGC

January 16, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

The Pacific Northwest Generating Company (PNGC) is pleased to submit these comments on the Bonneville Power Administration's (BPA) Proposed Long Term Intertie Access Policy (LTIAP). In addition, PNGC supports the Pacific Northwest Utilities Conference Committee's (PNUCC) comments on the fish and wildlife provisions of the policy on the Draft Environmental Impact Statement on Intertie Development and Use.

PNGC is a generation and transmission cooperative representing a number of rural electric cooperatives that are wholesale power customers of the Bonneville Power Administration (BPA). In addition, PNGC owns 10 percent of the Boardman Coal Plant; that resource is surplus to the needs of PNGC's Members. PNGC expects to be able to sell the output of that resource in the Pacific Southwest on a long terms basis.

Thus, PNGC and its Members have an interest in BPA adopting an LTIAP that not only advances PBA's marketing efforts but which strikes a reasonable balance between the interests of the various Northwest sellers of surplus power. In major respects, the proposed LTIAP goes a long way towards achieving such a balance.

PNGC does continue to have major concerns about the degree to which BPA's proposed policy will hinder sales of output from specific resources (e.g., Boardman) as compared with system sales. Our main concerns relate to the scheduling constraints which have been imposed on sales from specific resources under the Near-Term Intertie Access Policy (NTIAP). Power scheduled from a thermal plant does not have the flexibility to be shaped in the manner of power delivered under a system sale. As a result, imposing on a thermal resource the same monthly restrictions on scheduling rates that apply to system sales is impractical. While it may have been workable for short term sales under the NTIAP, such restrictions will only serve to thwart long term sales that are clearly in the region's interest.

PNGC has expressed these concerns previously in detailed written comments and in consultations with the BPA staff. I refer you to these comments, particularly PNGC's comments of April 3, 1986.

Sincerely,

Joseph W. Nadal, Jr.
Manager, Power & Resources

JWN/sw

Copy to-
PNGC Member Systems
Dan Ogden, PPC
Al Wright, PNUCC
Ray Foleen
Robert Greening
Mark Glaess, ORECA
Roy Eiguren
Craig Thomas, WREA
Jay Downen, MAU
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NORTHWEST RESOURCE INFORMATION
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January 16, 1987

Donna L. Geiger
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RE: Intertie Development and Use DES

Ms. Geiger:

These comments are offered for the record on the Intertie Development and Use Draft Environmental Statement, Volumes 1 and 2.

General Comments

How the intertie is developed and used has profound implications for the way the Federal Columbia River Power System is operated. FCRPS operations, in turn, determine whether or not wild salmon and steelhead runs and dependent economies in Idaho and other areas of the upper basin will survive. What were once the largest, most valuable components of the world's largest chinook salmon runs are economically extinct and biologically moribund as the result of past FCRPS operations. There is consensus among state, federal and tribal salmon and steelhead agencies that present FCRPS operations put future recovery of these runs and dependent economies at grave risk. A major region-wide effort has been mounted to embed in the Northwest Power Council's Fish and Wildlife Program constraints on FCRPS operations and other activities that will allow recovery of these salmon and steelhead resources in accordance with the intent of the Northwest Power Act and pre-existing requirements, including Indian treaty-reserved rights to fish.

With the proper safeguards, and developed as an integral part of a Columbia River Basin-wide plan to cogenerate anadromous fish and energy, expanded intertie capacity and expanded markets for energy surplus to our region's needs could play a pivotal role in meeting the fish protection mandates of the Northwest Power Act and pre-existing obligations. In that event, expansion of intertie capacity and requisite access policies would command my support and, I'm confident, support of people throughout the region. As presently advanced and proposed, however, I strongly

oppose the expansion of the interie. Following are specific criticisms and suggestions.

Specific Comments

1. The DES is silent on the commonly known fact that present FCRPS operations put many wild runs of upper Columbia River Basin salmon and steelhead at grave risk and that major initiatives are underway to reduce that risk by constraining FCRPS operations and that these constraints may and probably will constrain intertie development and use.

2. The DES evaluates alternative expansion and use scenarios that, oversimply, would maintain the status quo, or increase salmon and steelhead damage. None of these are acceptable under the Northwest Power Act or pre-existing obligations. There is no alternative that reflects changes in existing intertie use (and related FCRPS operations) required to meet fish protection mandates. There is no alternative that evaluates the impact on Idaho wild salmon and steelhead runs and dependent economies. There is no alternative that evaluates how expanded capacity and future use could be employed as an integral part of a comprehensive plan to achieve the cogeneration of fish and energy as required by the Northwest Power Act.

3. The DES is held out as a comprehensive evaluation of intertie development and use. In fact, Bonneville has segmented a number of major related actions, e.g., terminal expansion, which was advanced independently, without an environmental statement, and before the present DES, which suggest there my be other segments to come after the present DES. But in any event the cart-before-the-horse approach is maintained in the present DES in that the development and use proposals are being advanced before (and independent of) development of the comprehensive, integrated fish/energy plan required under the Northwest Power Act. If this approach is to be pursued, and here it is argued it should not be, the DES should state specifically how intertie development and use will be constrained so as not to impede development and implementation of the required comprehensive fish/energy plan.

Bonneville should build on the substantial effort represented in the subject DES, but fold it into a truly comprehensive DES that encompasses all related actions, reaching back to the terminal expansion project and extending forward to any other contemplated related actions, and to the comprehensive fish/power cogeneration plan required by the Northwest Power Act as discussed in 2 above.

Failing that, and given that the DES does not contain an alternative that can be modified by comment to address either the impact of the proposed actions on Idaho wild salmon and steelhead and related economies or how these proposed actions comport with requirements of the Northwest Power Act and pre-existing obligations, the comment period on the DES should be extended a

minimum of 120 days to give all concerned parties at least minimal opportunity to devise a detailed additional alternative for Bonneville to evaluate within the analytical framework of the present DES.

In summary, the intertie development and use DES, fails to address directly the potentially profound implications of the proposed actions on wild salmon and steelhead and dependent economies in Idaho; segments related actions, e.g., the terminal expansion; proposes actions which may preclude or significantly prejudice related actions required under the Northwest Power Act and pre-existing obligations, notably treaty-reserved rights of various Indian tribes; in the process of the foregoing, unecessarily creates a situation that invities internecine regional conflict among anadromous fish and energy interests who would be working in harmony with the more comprehensive approach suggested in paragraph three above.

Sincerely,

Ed Chaney

Ed Chaney
Director

EUGENE MUNICIPAL UTILITIES

MUNICIPAL UTILITIES

500 EAST 4TH AVE. - P.O. BOX 10148 - EUGENE, OREGON 97440 - 503-484-2411

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JEAN REEDER, Gen. Mgr.

January 16, 1987

Donna L. Geiger
Public Involvement Manager
P.O. Box 12999-ALP
Portland, OR 97212

Subject: Long-Term Intertie Access Policy Comments

Dear Ms. Geiger:

This letter is in response to the Bonneville Power Administration (BPA) request for comments on the proposed Long-Term Intertie Access Policy (LTIAP).

Consideration of the proposed LTIAP is one of the most important issues that will face BPA and the many users of the intertie for years to come. We urge BPA to carefully consider the views of the Eugene Water & Electric Board (EWEB) as it moves toward implementation. We also particularly call to your attention the comments of the Public Generating Pool (PGP), which represent the vast majority of publicly owned generation in the Northwest. As a member of PGP, EWEB played an instrumental role in the development of those comments.

After close review of the LTIAP, our concerns and the concerns of other BPA customers have convinced us that a second comment period is necessary in order to properly take into account the complexity of the issues. Further, the January 5 Phoenix speech by Interim Water and Power Subcommittee chairman George Miller of California made it clear that he intends to hold oversight hearings on BPA's intertie access policy and that his goal is to make the policy proposal a priority in his subcommittee. Congressman Miller's speech includes an intent to play regional politics with an important Northwest resource. We believe BPA must make doubly sure that any deficiencies in the policy are adequately addressed prior to any potential hearings. We believe the inclusion of a second comment opportunity will result in a far more equitable and accepted LTIAP.

EWEB's comments are contained in two parts, beginning immediately with general comments, followed by recommendations regarding specific sections of the policy.

I. GENERAL COMMENTS

- EWEB supports and endorses the comments of the Public Generating Pool (PGP) and the Pacific Northwest Utilities Conference Committee (PNUCC) relative to this policy.

- In our view, the Near Term Intertie Access Policy (NTIAP) has functioned reasonably well. Inasmuch as the LTIAP will be with us indefinitely, we feel there are several areas that warrant significant changes. While the new policy should be clear, concise and fair, the proposed policy, as it is written, is unclear, confusing, and lacks fairness. BPA should respond to the current comment round with significant revisions followed by a second opportunity for comment.

- We are firmly convinced that the LTIAP should not establish BPA as an additional regulatory agency for fish or wildlife or other provisions of state and federal law. Such a role would be redundant to the responsibilities of other agencies and unnecessarily costly to Northwest ratepayers.

- The LTIAP policy should provide an equitable distribution of intertie access between firm and nonfirm power. Seattle City Light has outlined a method we support that provides Assured Delivery and accomplishes an equitable distribution of intertie capacity.

- To the extent that an equitable distribution of intertie capacity is made between firm and nonfirm power, the LTIAP policy should provide intertie access to new resources, which are acquired to serve load growth as required by the BPA Power Sales Contract.

- The intertie was constructed primarily by and for Northwest generating utilities. Northwest resources must maintain priority access over extraregional resources.

- The intertie is a Northwest resource and should be shared in an equitable fashion. Reasonably shared use of the intertie may reduce utilities' interest in constructing alternative intertie facilities, which could duplicate the capabilities of the existing intertie.

- The LTIAP policy should establish that, if the third AC is built, Northwest utilities should have the option to obtain firm contract or ownership rights.

II. SPECIFIC COMMENTS

SECTION A. DEFINITIONS

All comments regarding definitions are included in the following section-by-section analysis of the proposed policy.

SECTION C. CONDITIONS FOR INTERTIE ACCESS

1. The term "Pacific Intertie" should be used throughout the policy in place of "intertie." The use of "Pacific Intertie" will make it clear that this policy addresses only facilities tying the Pacific Northwest and the Pacific Southwest.

2. The definition of "Resource" should be revised to clearly include long-term purchase contracts for firm power. Contracted resources are viewed as equal to owned resources by operating utilities and should be treated equally in this policy.

   The definition of "Qualified Pacific Northwest Resources" should be modified to clearly include new resources that are acquired to serve load growth in accordance with the terms of the BPA Power Sales Contract. Such a definition will insure that these resources can be included in declarations of Scheduling Utilities for nonfirm allocations and could obtain Assured Delivery under limited conditions. However, new resources built strictly for export should not gain firm intertie access until after the intertie is expanded.

   The definition of "Existing Pacific Northwest Resources" should be changed to include resources that were under construction or contracted for by a Scheduling Utility on or before September 7, 1984. The definition should also be changed to clearly include resources that are being operated by a utility customer to offset its load on the Scheduling Utility. In addition, BPA should recognize that existing hydroelectric resources can be modified or upgraded under their existing FERC licenses to increase efficiency, add units, or make other modifications. These resources should retain their status of "Existing Pacific Northwest Resource".

   Scheduling Utilities should not be allowed to purchase power from extraregional sources for the purpose of "laundering" such power across the intertie. Laundering could be accomplished by including amounts of energy purchased from extraregional sources in declarations of available surplus. Northwest resources should always receive priority over extraregional resources on the intertie.

3. While we agree that BPA should protect its Power Marketing Program, BPA has not yet clearly defined the goals and objectives of the program. We urge BPA to make such information available to its customers.

   BPA should not establish itself as a regulatory agency for fish or wildlife or other provisions of state or Federal law. Hydropower licenses are governed by FERC and in order to obtain and retain those licenses the operator must meet a very strict set of federal guidelines.

   If BPA deletes the word "Existing", as it has proposed in subsection c(3), then subsection c(1) regarding New Hydroelectric Plant is redundant and should be deleted. The resulting term "Pacific Northwest Resources" would then require definition.

   Add the word "substantial" before the term "adversely impact." This should be done here and anywhere in the policy that the term "adversely impact" or a similar term occurs. The intent will then be clear that all impacts must be significant for this policy to require remedial action.

6. EWEB supports the requirement that scheduling utilities must use all of their own transmission facilities before BPA grants access to Federally owned intertie facilities. This requirement would help insure equitable access to Southwest markets for all Northwest utilities.

SECTION D. INTERTIE CAPACITY RESERVED FOR BPA

BPA should clearly be limited in reserving intertie capacity in accordance with the provisions of Exhibit B. Such a limitation would place a clear ceiling upon BPA use. BPA should only reserve intertie capacity necessary for its own actual use and should make its best effort to not allow reserved capacity to go unused.

SECTION E. ASSURED DELIVERY FOR INTERTIE ACCESS

The LTIAP policy should be very clear in stating under what conditions new resources can obtain Assured Delivery. As the proposed policy is written, only new resources which are replacing existing resources can gain Assured Delivery. New resources should be provided Assured Delivery as long as there is an equitable distribution of access between firm and nonfirm power.

The definition of Assured Delivery includes the term "uncontrollable forces". This term is included and defined in BPA's General Wheeling Provisions and will likely be included and defined in all other contracts pursuant to the LTIAP. To avoid confusion, the term should either be defined or deleted.

1. Exhibit B For Scheduling Utilities

   We agree that the maximum amount of Assured Delivery should be based on a utility's average firm energy surplus as shown in Exhibit B. While we support the use of PNUCC data to establish a utility's average firm energy surplus, BPA should carefully verify the accuracy of such data.

2. Assured Delivery For Firm Power Contracts Of Scheduling Utilities

Assured Delivery for Scheduling Utility contracts listed in Exhibit C should be provided through the dates of Contract Expiration.

This section should state that utilities can obtain Assured Delivery for firm contracts which have callback provisions. However, no new resources should be given firm access unless provisions are made to protect nonfirm access through an equitable distribution of access between firm and nonfirm.

3. Assured Delivery For Capacity Contracts Of Scheduling Utilities

Assured Delivery for capacity contracts should be provided. However, capacity contracts should be allowed only after the intertie is expanded and should be given a priority no higher than an exchange. Capacity sales should not be limited by Exhibit B firm surplus because these values are based on energy surplus. A Scheduling Utility may have no energy surplus but may be able to sell capacity.

4. Assured Delivery For Capacity/Energy And Seasonal Exchange Contracts Of Scheduling Utilities

We strongly support this portion of the policy. It is appropriate to include provisions for exchanges whereby the Northwest and the Southwest regions can take advantage of their load diversities in order to delay or avoid the need for construction of new resources. The conditions for such transactions must be clearly spelled out, but must be delayed until such time that the intertie is expanded. Exchanges should not be a mechanism for the sale of nonfirm energy.

The term "Generally will not be granted" should be replaced with specific conditions with which grants will or will not be made. Such language would ensure consistent treatment of Scheduling Utilities as Bonneville considers requests by users of the intertie.

5. Assured Delivery For FD Supported Sales

Firm Displacement (FD)-supported sales should be treated no differently than other sales. FD-supported sales should meet the same requirements as any other request for Assured Delivery. If FD sales are given priority for access, resource deficiencies may result requiring BPA to acquire new resources to meet Northwest loads.

6. Assured Delivery For Section 9(i)(3) Priority Resources

We support the manner in which BPA has proposed to provide Assured Delivery for only the regional share of Section 9(i)(3) Priority Resources.

7. Implication On BPA's Obligation To Serve Pacific Northwest Load

This section allows a firm sale to be insured by BPA resources provided BPA is given advance notice. This provision places BPA in the position of accepting responsibility for a Scheduling Utility's load growth and could result in BPA acquisitions of expensive new resources in order to support a Scheduling Utility's firm power sale outside of the Northwest. Such a provision could adversely impact the Priority Firm rate schedule. We also recommend that this section include a reference that sales will be subject to Section 3(d) of Pub. L. 88-552, and Sections 9(c) and 9(d) of Pub. L. 96-501.

8. Requests For Assured Delivery And Scheduling Requirements

"Resource stack" should be clearly defined. Criteria should be established to insure equal treatment of all Scheduling Utilities.

Language in this section would create a redundant arena for public review and comment relating to possible fish and wildlife impacts. The Region's resources have already completed a comprehensive review process.

SECTION F. FORMULA ALLOCATION METHODS

1. This section gives BPA allocation preemption rights which are too broad and should be revised to limit preemption to unloaded portions of the intertie. If BPA preempts allocations of intertie which are loaded, BPA may cause negative impacts upon fish and wildlife elsewhere in the region.

2. This policy does not clearly state what is to be included in a Scheduling Utility's declaration of surplus power available for export. Language, or lack thereof, in the NTIAP has led to inconsistent declaration calculations by utilities, which has resulted in inequitable allocations. BPA should define what the content of a declaration is. Under Condition 1 and 2, BPA should limit such declarations to resources with an incremental cost of less than 1.5 times the average price of all economy sales that took place during the prior scheduling period.

BPA should eliminate the hydro allocation cap under Condition 1 which limits intertie access to the ratio of individual utility hydro capability divided by regional hydro capability. This will place a limit on all utilities except BPA. This provision will encourage inflated declarations because utilities will be protected by the cap.

BPA should not decrease allocations based upon alleged fish and wildlife impacts of a New Hydroelectric Plant. The proposed LTIAP states that intertie allocations would be reduced regardless of whether or not a New Hydroelectric Plant is operating or using the intertie. Such proposed action is punitive and inappropriately establishes BPA as a fish and wildlife "policeman."

G. Access For Qualified Extraregional Resources

Purchases of extraregional power to maintain Assured Delivery under regional surplus conditions should be prohibited. Extraregional purchases for this purpose would interfere with the access and disposition of Pacific Northwest surplus.

We support BPA's policy of extraregional access to the intertie in return for consideration under the Coordination Agreement. However, the net benefits to the Northwest utilities should not be reduced by such transactions. BPA and other Northwest utilities maintain priority use of the Pacific Intertie. At no time should sales from extraregional utilities have a detrimental effect on BPA or other Northwest utilities. When extraregional sales are allowed, the extraregional utility should be required to pay all associated costs related to such transactions.

H. Special Provisions For Canadian Resources

Any level of Canadian access, in exchange for measurable value to the Pacific Northwest, must be clearly spelled out. Clear benefits must result from any Canadian involvement.

I. Procedures For Review Of Compliance And Remedies

We urge BPA to develop a method of spot checking the declarations of utilities. A utility should be prepared to meet its entire declaration at all times. BPA should develop an enforceable disincentive to discourage users of the intertie from inflating declarations.

We also urge BPA to develop a methodology whereby strict regulation of transactions would occur to prevent the displacement of firm, resource-specific allocations by any nonfirm transactions. Nonfirm energy should not be "laundered" under firm contracts.

The subsection on fish and wildlife compliance is unnecessary based on our general assertion that BPA's involvement in regulatory aspects of fish and wildlife is inappropriate.

We urge Bonneville to carefully consider our views as the adoption of a LTIAP moves closer. Thank you for the opportunity to offer our comments on this very important issue.

Sincerely,

Garry W. Kunkel
Director, Power Management

GWK:vm

Portland General Electric Company

January 16, 1987

Ms. Donna Geiger
Public Involvement Manager
Bonneville Power Administration
PO Box 12999
Portland OR 97217

Dear Ms. Geiger:

Re PGE Comments on Proposed Intertie Access Policy and
Draft Intertie Development and Use Environmental Impact Statement

Thank you for the invitation to comment on the Proposed Policy and Statement. I appreciate the opportunity to participate in development of this very important policy. Its impact will be significant to utilities in both the northwest and southwest.

Please find PGE's comments in two separate attachments: Comments on the Proposed Policy, followed by Comments on the Environmental Impact Statement.

Sincerely,

Larry M. Kellerman, Manager
Wholesale Marketing & Power Contracts

LMK/MH/lkk
1626i.187

Attachments

INTERTIE ACCESS POLICY

1. Defining Usage of Non-BPA Transmission Facilities

Section C.6 states that a Scheduling Utility or Entity with ownership rights to non-BPA transmission facilities will be required to use the capacity of such facilities prior to receiving any access to BPA Intertie capacity. In addition, BPA has made certain judgments related to the use of its share of the Intertie for capacity exchanges and other transactions which BPA intends to limit or restrict.

PGE intends to use its share of the line for firm or nonfirm sales, as well as capacity exchanges and will potentially use its share of the Intertie in the future for other purposes for which BPA chooses not to use its share of the Intertie. PGE would like BPA to clarify in this policy that it will not attempt to judge the merits of how other Intertie users choose to schedule their lines in determining access to BPA's share of the Intertie. PGE recognizes BPA's interest in determining what it considers to be appropriate uses for its share of facilities, and we recommend that BPA should state in the LTIAP that the usage limitations only apply to other parties' use of BPA transmission.

2. Policy Restricts Markets

Section C.6 requires that a utility must use its own Intertie capacity whether obtained contractually or by ownership before receiving any access to BPA Intertie capacity.

This requirement represents a direct attempt to allocate market rather than access to BPA's Intertie. Since the AC and DC (and potentially the Inland Intertie and Trans-Sierra Line) allow access to different markets, PGE and others can and do find themselves in the situation where their capacity is not fully usable on their own facilities but are still excluded from dealing with a utility only accessible over the Interties controlled by BPA.

BPA's policy should not discriminate on the basis of other Northwest utilities' ownership or rights in existing or prospective transmission. The policy should apply with equal force and protection to all Pacific Northwest scheduling utilities, regardless of their other transmission capabilities. Northwest utilities with other transmission rights should not be compelled to fully utilize such facilities before gaining access to the government's facilities, especially in cases where the transmission controlled by the other parties cannot be used to access the markets which may only be accessible via the use of government transmission.

3. Definition of Intertie

The definition of the "Pacific Intertie" is stated to include any additions identified by BPA as Pacific Northwest-Pacific Southwest Intertie facilities.

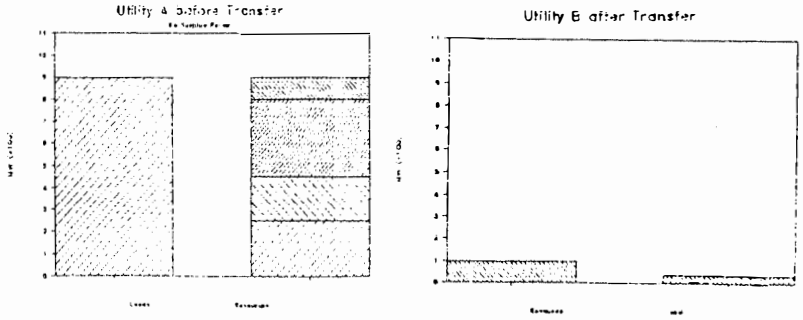
In recent publications, specifically, BPA's October 1986 "Issue Alert", BPA has configured the Buckley-Summer Lake Line to loop through Grizzly Substation, which it presently does not, and has identified it therein as Intertie facilities. Under existing contracts, because of joint ownership, BPA may not unilaterally redefine the facilities which comprise the AC Intertie. We suggest that BPA explicitly recognize its contracts and relationships with other Intertie co-owners in any definition of the Intertie.

4. Artificial Reallocation of Resources

This policy does not protect BPA and the region from abuse through contrived reallocation of resources for the purpose of gaining Intertie access. For example, transfer of a large resource to an entity serving a smaller load would allow that entity to declare an artificial surplus. That entity could use the calculated surplus to gain assured delivery.

The following illustrates the point:

> At the outset, utility A has a balanced load/resource stack within the Pacific Northwest, from BPA's perspective, and thus has no opportunity for firm Intertie access under the proposed policy. Utility A transfers a 100-MW resource to utility B, which serves only a 35-MW load. The resulting artificial surplus is then declared by utility B, allowing it to gain assured delivery on the Intertie by using a loophole in the LTIAP.



PGE suggests that BPA make provisions to prevent such situations, perhaps by assigning any net surplus created on paper by such an action, which could include intraregional sales, exchanges, or condemnations having the effect of creating a net increase in BPA's obligation to provide Assured Delivery, back to the original owner of the Pacific Northwest resource.

MH/lkk
1627i.187

Attach TIE 1 83

COMMENTS ON THE DRAFT IDU/EIS

1. The draft IDU/EIS dramatically overstates the benefits of the DCTU and understates the benefits of the third AC. The economic analysis should be performed on the basis of how these facilities will actually be operated rather than a coincidence of timing.

   Tables 4.8.3 and 4.8.2 show that maximum planned Intertie expansion is only cost-effective with the inclusion of firm contracts and states that the DC upgrade would capture $285 million, while the third AC captures only an additional $187 million.

   The following facts lead to the conclusion that the DCTU will not be used in support of firm sales and that BPA's estimate of the value of the DCTU compared with the third AC are improperly calculated:

   Losses on the incremental share of the DC facilities approximate 20 percent versus 7-10 percent on the AC, making these facilities impractical from an economic perspective for transacting of the type of the long-term firm sales and exchanges which BPA seeks to enter into.

   The DC line provides access to a limited subset of the southwest market compared to the third AC.

   The viability of performing firm sales at a level greater than 2,000 MW on the DC facilities is highly questionable without remedial equipment and without the support of the third AC facilities, the cost of which is not included in the DCTU estimates.

   As BPA representatives had previously stated in technical meetings in the Pacific Northwest, the main use for the DCTU is nonfirm sales during high runoff spring months. During most months, under median water, the DCTU share will tend to be lightly loaded or unloaded while the third AC will continue to be used.

   Because of much greater losses, lower stability, plus less access to markets operationally, the DCTU will only be loaded after all existing facilities and the third AC are loaded.

2. BPA has failed to perform its fiduciary responsibility to its Pacific Northwest customers by not performing any economic analysis of the cost versus benefits to Pacific Northwest ratepayers for the Pacific Northwest share of costs of the Intertie upgrades. The analysis should reflect the fact that approximately half of the DCTU cost is borne in the Pacific Northwest, while about one-third of the third AC costs will be charged to the Pacific Northwest.

MH/lkk
1627i.187

MID-COLUMBIA PUBLIC UTILITY DISTRICTS
CHELAN, DOUGLAS, GRANT COUNTIES, WASHINGTON
REGIONAL COORDINATION OFFICE

520 S.W. SIXTH AVENUE, SUITE 1100
PORTLAND, OREGON 97204 (503) 222-3317

January 12, 1987

Mr. James Jura, Administrator
Bonneville Power Administration
P.O. Box 3621
1002 N.E. Holladay Street
Portland, Oregon 97208

Dear Jim:

The Mid-Columbia PUDs of Grant, Chelan, and Douglas Counties as members of the Public Generating Pool (PGP) and the Pacific Northwest Utilities Conference Committee (PNUCC), support and endorse their comments to you regarding the Proposed Long-Term Intertie Access Policy (LTIAP, October 1986). However, we wish to provide additional comments regarding particular issues contained within the policy as proposed, and these are included as Attachment 1.

The Mid-Columbia PUDs are committed to the protection, mitigation, and enhancement of fish and wildlife resources on the Columbia River. However, we continue to be greatly concerned with the direction that the Intertie Access Policy continues to take regarding fish and wildlife.

Comments were previously submitted, either jointly ar individually, by the Mid-Columbia PUDs addressing the draft BPA Interim Intertie Access Policy and also the subsequent draft of the BPA Near-Term Intertie Access Policy. The comments outlined our concerns of these two draft policies. Our previous comments are included as Attachments 2 and 3 as they continue to be relevant and we wish them to be included as a part of the record of the LTIAP.

Thank you for your consideration of our comments and concerns.

Sincerely,

John McMahan
Grant County PUD

Gerald L. Copp
Chelan County PUD

Eldon Landin
Douglas County PUD

DR:gh:10400

Attachment

cc: Donna L. Geiger, BPA
PGP
PNUCC

Attachment I

COMMENTS
PROPOSED LONG-TERM INTERTIE ACCESS POLICY

The Long-Term Intertie Access Policy as proposed causes us to be concerned. We would like to call particular attention to BPA's introduction into the proposed LTIAP of conditions relating to fish and wildlife and new hydroelectric plants (C.3.c.(1) and E.8.(2)), and also conditions for Intertie Access as related to compliance with applicable licenses, permits, or other provisions of state and federal law (C.3.c.(2)). We feel that these sections are not only inappropriate but also unlawful for the same reasons as outlined in our attached previous comments.

Regarding section C.3.c.(1), it is quite clear that FERC has jurisdiction over new non-federal hydroelectric plants. Thus if BPA has any concerns with the operation of the plant, it can clearly seek relief through the appropriate FERC process. BPA has no authority to deny access to the intertie under this stated premise of ". . . substantial adverse impact on fish and wildlife resources . . ." It is, however, interesting to note that this section even erroneously indicates that it applies to all fish and wildlife and not just fish and wildlife related to the administrator's expenditures and in accordance with the Northwest Regional Power Act and the Council's Fish and Wildlife Program. We recommend deletion of this section and related sections (i.e., E.8.(2)) as inappropriate and unlawful.

Furthermore, as in C.3.c.(1), Section C.3.c.(2), also pertain to issues over which FERC clearly is the governing body. And again, as in Section C.3.c.(1), it is interesting to note the similar erroneous omission of this section applying only to within the Columbia River Basin, to fish and wildlife related to the Administrator's expenditures, or to applicable state or federal law. We recommend deletion of this section as being inappropriate and Bonneville having no authority to deny access to the intertie under this premise.

The Mid-Columbia PUDs recognize the obligations of the BPA Administrator to protect, mitigate, and enhance fish and wildlife under the Northwest Regional Power Act and the Council's Fish and Wildlife Program. However, BPA is exceeding its authority and this obligation is misplaced by including it in this policy. The Act requires BPA to provide utilities with federal transmission services on a fair and nondiscriminatory basis. C.3.c.(3) as proposed would contradict that requirement. Therefore, this section is clearly inappropriate and unlawful and we recommend that it be deleted entirely.

Section I.3. is a corresponding section related to the deletions and modifications as outlined above. Therefore, deletions of corresponding sections of I.3. are also recommended.

Attachment 2

Public Utility District No. 1 of Chelan County

P. O. BOX 1231 • WENATCHEE, WASHINGTON 98801-0011 • (509) 663-8121

August 10, 1984

attach
T-8-84-1

Mr. Peter Johnson
Administrator
Bonneville Power Administration
P. O. Box 3621
Portland, Oregon 97208

Dear Mr. Johnson:

The Mid-Columbia Public Utility Districts (Chelan, Douglas and Grant) have worked with the Public Generating Pool (PGP) in developing comments to you regarding Bonneville's proposed near term intertie access policy. We support and endorse the comments of the PGP but wish to amplify and further comment on particular issues associated with the policy.

We are particularly pleased with various marketing decisions by BPA, such as the elimination of the spill rate and procedures for granting access to extra-regional utilities; however, we have specific concerns regarding conditioned access on the basis of fish and wildlife considerations.

The mid-Columbia PUD's have the greatest potential to be adversely affected by the fish and wildlife provisions of the proposed policy. As you know, the mid-Columbia PUD's presently have an open petition on all mid-Columbia project licenses regarding additional protection for downstream migrants. This petition is being satisfactorily resolved at present through a series of negotiated settlements. However, the issues are complex and will be debated for many years before final resolution is achieved.

Because of the imperfect knowledge of fishery concerns and the long term nature of the mid-Columbia proceedings, we are deeply concerned that your access policy, especially Section 6, will invite continued pleas of "substantial" fishery impacts from concerned fishery agencies and tribes. Additionally, we are concerned that final resolution of these issues before FERC could be obscured by having to needlessly readdress the same issues in a different undefined forum.

The mid-Columbia PUD's are therefore requesting that BPA modify Section 2. c. as follows:

> 2. c. substantially decrease the effectiveness of or substantially increase the need for expenditures or other actions by the Administrator to protect, mitigate, or enhance fish and wildlife, or otherwise substantially interfere with the obligations of the Administrator to protect mitigate, or enhance fish and wildlife under provisions of applicable state or federal laws, regulations and procedures.
>
> The test for "substantially increase" or "substantially interfere" shall be the ability of a non-Federal generator to show proof of a valid FERC license and/or demonstration of presently meeting FERC administrative procedures.

With the modification of Section 2. c. we recommend the complete elimination of Section 6 for the following reasons:

1. For the short term (life of the interim policy) there will be few, if any, new resources coming on line that are not already licensed. Therefore, new resources are not at issue.

2. The mid-Columbia PUD's have "open" FERC processes over the next few years which mandate all fish related activities. BPA could do nothing in a contravening process to influence the outcome. Immediate action by FERC is available to all parties through established procedures.

3. During the life of the interim policy, it is unlikely that BPA could establish and carry out an administrative procedure to determine what is "substantial" to the acceptance of all involved parties.

It is our understanding that other parties maybe suggesting alternative language for Section 6 which would allow a separate process for BPA determinations based upon fishery considerations. The Mid-Columbia P.U.D.'s are convinced that such alternatives are not acceptable nor rational within the context of separate FERC proceedings.

We thank you for the opportunity to comment on your proposed policy and hope our views will be helpful.

Very truly yours,

Gerald L. Copp
Chelan County Public Utility District

Fred Lieberg
Douglas County Public Utility District

John McMahan
Grant County Public Utility District

cc: PNUCC
PPC
PGP
Regional Power Council

JONES, GREY & BAYLEY, P.S.

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HARRY B JONES JR
COUNSEL RETIRED

FRANK G BAYLEY
1904-1985

Attach
TIE-184

March 15, 1985

IN REPLY REFER TO
FILE NO

Donna L. Geiger, Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

The three mid-Columbia PUDs of Chelan, Grant and Douglas Counties are submitting comments on the draft Intertie Access Policy under separate cover. However, we would like to call particular attention to the concern of Grant PUD with the proposal in Paragraphs C(3)(c) and (7) of the Policy to deny Intertie access to utilities whose projects are alleged to adversely impact fish and wildlife. We recommend that Paragraphs C(3)(c), C(7)(e) and C(7)(f) be deleted.

Our concern is four-fold.

First, the fish and wildlife provisions of the proposed Intertie Policy create an implementation method not contemplated by the Northwest Power Act, 16 U.S.C. § 839 et seq., and inconsistent with the plain language of the Act. The Act requires Bonneville to provide utilities with federal transmission services "on a fair and nondiscriminatory basis." See also 16 U.S.C. § 838d. Provision of transmission services may be limited only by the criteria set forth in Sections 9(d), 9(i)(1)(B) and 9(i)(3) of the Northwest Power Act. These are identical to the criteria listed in Paragraphs C(3)(a) and (b) of the proposed Intertie Access Policy.

Noticeably absent from the Northwest Power Act's list of criteria for limiting access to the transmission system is any requirement of compliance or consistency with the fish and wildlife programs of either BPA or the Power Council created by the Act. Conditioning Intertie access on these additional considerations would directly contravene two important policies of the

statute -- the policy of promoting local independent development of resources and the policy of permitting continued operation of projects with existing Federal licenses. See Sections 2(5)B, 10(a)(2), and 10(i). It would also contravene the requirement that BPA provide non-discriminatory access to transmission services. Section 9(d).

Second, BPA has no authority to deny transmission access to any project operating in compliance with an FERC license. As stated above, BPA may condition access to the Intertie only on criteria provided in those statutes applicable to its operations. We are not aware of any statutory authority for BPA to condition access on meeting environmental standards different from or greater than those otherwise provided by law. With respect to FERC licensed projects, the applicable environmental requirements are fixed by FERC and set forth in the license. The Northwest Power Act has not altered this regulatory scheme and has not reallocated to BPA any of FERC's regulatory authority. Nor does the Northwest Power Act or any other statute give BPA rule-making authority to establish operating requirements -- whether for fish and wildlife or for other interests, such as archaeology -- for FERC licensed projects. The Northwest Power Act clearly leaves decisions concerning FERC-licensed projects in the hands of the FERC. Accordingly, Paragraphs C(3)(c) and C(7)(e) are inappropriate in their entirety.

It should be noted that FERC procedures provide ample opportunity to resolve the types of conflicts envisaged by Paragraph C(7)(e). FERC regulations require consideration of agency comments and criticisms in the FERC's environmental assessment. Vesting of regulatory jurisdiction in FERC, coupled with such consultation and consideration, are expressly designed to avoid exposing licensees to the kind of overlapping and, potentially, conflicting regulation (whether it is direct or, as here, indirect) that BPA's draft policy would effect. If BPA has concerns regarding the environmental impact of project operations, they must be resolved by the FERC on initial licensing or relicensing, or in license modification proceedings such as those currently involving the mid-Columbia projects. BPA is not empowered to be an arbiter of such decisions. Indeed, any such additional or different requirements may be construed to violate Section 799 of the Federal Power Act (16 U.S.C. § 799).

Furthermore, it is not clear that BPA possesses any authority to enforce the terms of an FERC license by granting or withholding rights or privileges on the basis of compliance. The Federal Power Act vests enforcement authority exclusively in the FERC.

Our position can be stated succinctly. In making any decision, at best, with respect to fish and wildlife issues, the only BPA inquiry relevant to access to transmission is whether a

project is being operated in compliance with its license. The decision as to whether the project is in compliance lies exclusively with the FERC, as does the determination of sanctions for any violation.

Third, the proposed policy is so broadly stated and carries such severe penalties as to have an in terroram effect disproportionate to any benefits for fish and wildlife likely to result from its implementation. There is virtually no method of generating electrical energy which does not have some adverse effect on the environment. Hydropower is one of the cleanest, safest, and least wasteful sources of electricity, yet it too has some ecological costs. Nevertheless, in view of the severity of a denial of Intertie access, utilities will be under increased pressure to implement agency proposals, whether or not such proposals are cost effective or biologically sound.

Fourth, we do not believe the Northwest Power Act provides authority for BPA to deny Intertie access for independently developed new resources which are not acquired by BPA, regardless of their fish and wildlife impacts. See Sections 2(5)(B) and 10(A)(2) of the Act. Paragraph C(7)(f) of the proposed policy should therefore be deleted.

We appreciate your consideration of our concerns.

Very truly yours,

JONES, GREY & BAYLEY, P.S.

Donald B. Myers

Donald B. Myers
Attorney for Public Utility District
No. 2 of Grant County

MAP/1A

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

January 16, 1987

Donna L. Geiger
Bonneville Power Administration
1002 N.E. Holladay
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Ms. Geiger:

This letter represents PNUCC's comments on the Bonneville Power Administration Draft Intertie Development and Use Environmental Impact Statement (IDU-EIS). Due to the limited time available for review, we have been forced to concentrate only on fish and wildlife effects due to the changes in hydropower operation (Section 4.5 of the EIS). In summary, we believe BPA used the best models and analysis available to evaluate the impacts to fish and wildlife. However, we do not agree with all of BPA's interpretations of the results. PNUCC believes that the results of the analysis viewed within realistic criteria for significance show no measurable impacts on fish and wildlife within the range of practical Intertie operation and use. The measure of significance is well within the noise of the data.

Hydro Operations

Changes in hydro operations using various Intertie use scenarios result in insignificant fish and wildlife impacts. BPA's detailed analysis and results verify our intuitive conclusion that changes in hydro operations resulting from Intertie policies have little impact on fish and wildlife. The hydro system is normally operated near its optimum capability because it is the least expensive source of energy available to the Northwest. The only changes in hydro operations which have any measurable impact on fish are Intertie changes which increase generation and reduce inadvertent spill or re-regulate river flows. Opportunities to increase hydropower generation are limited. Therefore, as the Intertie capacity is increased, it will not greatly alter system-wide hydro operations.

The capacity and policy alternatives examined by BPA bracket the likely possibilities and, therefore, reveal the maximum impacts that might occur. BPA's results showed that there is no more than a 1 percent increase in hydrogeneration (ref. Section 4.2.3.2.1). Further, BPA determined that the 1 percent increase was insignificant due to an inability to accurately measure such small incremental changes.

Standards for "Significant" Impacts

In evaluating the potential for fisheries impacts, BPA defined a standard of significant impact for each area in the analysis. We believe the criteria used for determining significance are not realistic. The following discussion focuses only on the standards set for downstream migrant survival of anadromous fish.

BPA analyzed potential changes in river flows during the spring migration months using the System Analysis Model (SAM). A significant impact was defined as a change in flow that would increase fish travel time by one day during a migration season of 30 to 45 days. Based on this criterion, BPA determined that there would be no significant impact to fish. Given the available input data and field measurement techniques, this proposed one day criterion is too small to be measured. Therefore, PNUCC agrees with BPA's conclusion of no significant impacts but believes that even an increase in travel time of two or three days would also be insignificant and not measurable.

The FISHPASS model was run to estimate survival below Bonneville Dam for fish entering the river system at each project. The criteria BPA used to define a significant impact on juvenile fish survival were based on both the magnitude and probability of fish survival changes. Combining these two components, BPA set a criterion of a 1 percent decrease in fish survival occurring more than 30 percent of the time or a 5 percent decrease in survival occurring more than 5 percent of the time as representing a potentially significant impact.

PNUCC believes that a standard of 1 and 5 percent decreases in fish survival is not measurable. At best, fluctuations in survival less than 5 to 10 percent cannot be accurately measured in the field for any single activity. A 1 or even 5 percent change in overall system survival will be lost in the natural variability of the ecosystem. Secondly, even if it were possible to measure or observe these slight changes, the uncertainties associated with the input data and the assumptions within the FISHPASS model itself provide variability beyond this range of accuracy.

The Corps' FISHPASS model is an improvement in the region's analytic capability and represents the best method currently available for evaluating hydropower operational effects on fish survival. However, there is much uncertainty associated with several FISHPASS input parameters. An example of one of these input parameters is turbine related mortality for juveniles. This subject was debated during the recent Rock Island Dam relicensing proceedings before FERC. Several experts presented estimates of turbine mortality that ranged from 11 to 15 percent. Slight variations in such parameters as turbine mortality can lead to large differences in overall survival estimates. The Regional Council's Mainstem Passage Advisory Committee has been examining the sensitivity of changes in input parameters on FISHPASS model results. Their results indicate that a 1 percent change in the turbine mortality assumption effects fish survival by 2 to 3 percent. Therefore, the range of estimates for turbine mortality would result in up to a 12 percent change in predicted system-wide survival.

Because of these uncertainties associated with the input assumptions, like turbine mortality, changes of 1 or 5 percent system survival represent no more than modeling noise. PNUCC suggests that BPA use a criterion for a change in system-wide survival somewhere in the range of 5 to 10 percent as a minimum for indicating significant impact.

The probability component of BPA's juvenile survival standard of significance of 5 and 30 percent are also within the "noise" of the analysis. The hydrology and biology of the system are too variable and complex to attribute such a small probability of change to a particular action or cause. A likelihood of occurrence of 5 to 30 percent, even given acceptable ranges of incremental changes in magnitude, is too low a probability to be

given significance. PNUCC believes that a measurable change would have to occur 30 to 50 percent of the time under variable conditions to attribute it to a particular cause. We suggest that BPA change this component of their criterion accordingly.

BPA identified the worst case in all of the scenarios for juvenile fish survival (p. 4.5-27). This worst case implied that the decrease in survival represented a loss of 26 fewer returning adults out of run of 1,900. This is not a measurable effect, let alone a significant impact. BPA must change its standards of significance to avoid creating an illusion that such small increments of survival and probability of occurrence are actually measurable with existing techniques.

Fishery Mitigation

In Section 4.5, BPA has suggested measures to mitigate the apparent reduced survival of several stocks of downstream migrants. It should be noted that the effects of hydro system operations are being fully mitigated through other programs. These programs, developed for both federal and nonfederal dams, assume operation at hydraulic capacity 24 hours a day, 365 days a year. Moreover, by the time new projects become operational, complete mitigation packages for these projects have already been implemented under appropriate licensing authority. Bonneville's discussion of the effects of the hydro system on fish and the potential for additional mitigation ignores this important consideration.

Examples of such programs include the Lower Snake Compensation Plan and the Council's Fish and and Wildlife Program. Thus, even if a significant impact from changes in the hydro operations had been identified, those impacts would already have been mitigated under the current and ongoing programs and agreements. Consideration of additional mitigation is double accounting. Bonneville should therefore delete the section on page 4.5-28 "Spill and Flow Effects on Survival: Possible Mitigation Measures."

Other Concerns

PNUCC agrees with BPA's general conclusion that there would be no irretrievable or irreplaceable loss of fisheries due to possible changes in the hydro system operations as a result of changes in the capacity or use of the Intertie. System operations could be modified rapidly, thus no irreversible impacts or irreplaceable losses are expected.

In conclusion, PNUCC believes that Bonneville has used the best methods available and reasonable assumptions to analyze the effects of changes in the capacity or use of the Intertie on fish and wildlife. We believe BPA has gone beyond the ability to measure in establishing standards of significance and should reevaluate those standards. We are certain that the minor fluctuations that result cause no significant impacts to juvenile migrants. PNUCC recommends that the Final EIS reflect this lack of significant impacts.

Thank you for the opportunity to comment.

Sincerely,

Al Wright
Executive Director

AW:lp:156V

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

MEMORANDUM

attach TIE-1-85

To: Intertie Access Policy Work Group
System Planning Committee

From: Al Wright

Date: December 22, 1986

Subject: Comments on BPA Draft Intertie Access Policy and Draft Intertie Development and Use EIS

Attached are draft PNUCC comments on the access policy and EIS. We have received an extension of time for comment until January 16. Therefore, the proposed meeting of the Work Group on Tuesday, December 30 is cancelled. We are rescheduling the meeting for

9:00 a.m., Friday January 9 to review the attached comments.

The fish and wildlife comments on the access policy are designed to help BPA find some fish and wildlife role as regulator of the intertie without attempting to supercede existing laws and statutes.

The comments on the EIS are only partially complete and still require much work. We have not had the staff time available to do a proper job given all the Council's Fish and Wildlife Amendment requirements. We will continue to work on the EIS draft right up to the close of comments.

I am including the System Planning Committee in this mailing since I know many members are interested in what we propose to say and we did not have a System Planning Committee meeting in December. Everyone is welcome on January 9 to discuss comments, or you may phone your comments to me or Dick Adams at your convenience.

Happy Holidays.

AW:lg:156U

Attachment

cc: Board of Directors

PNUCC 520 SW SIXTH AVENUE, SUITE 505 PORTLAND, OR 97204 (503) 223-9343

DRAFT

December 23, 1986

Mr. Jim Jura, Administrator
Bonneville Power Administration
P.O. Box 3621
1002 N.E. Holladay Street
Portland, Oregon 97208

Dear Jim:

This letter is in response to your October 22, 1986 request for comments on the Proposed Intertie Access Policy. Comments on the Intertie Development and Use Draft Environmental Impact Statement are being provided under separate cover.

The PNUCC Board of Directors have strong concerns regarding BPA attempting to use its Intertie Access Policy as a regulating mechanism for enforcing fish and wildlife provisions. We have repeatedly expressed our objections over the last several years and have yet to be successful in convincing BPA that it is exceeding its authority in use of the Intertie Access Policy to enforce fish and wildlife provisions. Once again, we will attempt to persuade you that the fish and wildlife language in the draft long term policy is inappropriate. This time we are keeping our arguments simple and concise. However, we have attached a list of all our previous comments to BPA and the Northwest Power Planning Council, including legal arguments regarding fish and wildlife language in the access policy, which we are requesting be included into the record by reference.

Fish and Wildlife Provisions Are Not Necessary

Fish and wildlife protection is provided at all existing federal and nonfederal generating resources through a myriad of federal and state statutes, licenses, permits

and other provisions. It is inappropriate and duplicative for BPA to attempt to impose a new and separate set of requirements on these generation resources.

The operators of existing nonfederal hydroelectric projects are controlled through their FERC licenses. Under such licenses, fish and wildlife complaints by any involved party have a clear and established procedure for being heard. There are numerous examples of such activities ongoing under FERC licenses in the region. If a FERC license is found to be in violation of its license provisions, there are established sanctions and penalties, including shutting down the operations. Such sanctions can be imposed by FERC with no assistance needed from Bonneville. If during such proceedings additional license provisions are found to be necessary, FERC also has a procedure for implementing new license conditions on existing projects.

It is Questionable That BPA Has the Authority

All of the citations from the Regional Power Act used previously by BPA to support its proposed new role as regional protector of fish and wildlife are implicit at best. None are explicit regarding BPA using its control of the Intertie to protect fish and wildlife beyond the requirements of existing federal and state statutes and rules. Nowhere in the Regional Power Act is there a requirement for BPA to supercede the rules, regulations, and provisions of a licensing agency such as FERC. However, the Regional Power Act is explicit when it states that none of the provisions of the Regional Power Act are intended to supercede other provisions of federal law (such as the Federal Power Act).

The Access Policy is a Poor Tool to Protect Fish and Wildlife

Notwithstanding all other arguments, even if BPA has the authority to use the Intertie Access Policy to protect fish and wildlife, BPA will find it a poor tool at best. Limiting access to the Intertie is an attempt to regulate a project operator after the fact. Fish and wildlife mitigation provisions or operational restrictions should be imposed before the project goes into operation. That is why existing federal and state statutes, licenses, and regulations work--they are applied before the project can operate or directly during operation at the source.

Fish and wildlife impacts are the result of direct operation, especially at hydropower projects. Therefore, attempts to regulate these impacts by restricting transmission of the generation are, at best, retroactive penalties.

Allocation Reduction Simply Will Not Work

We are particularly concerned with BPA's new attempt to reduce a utility's allocation to the Intertie if it owns an alleged "bad" project even if the project is not on the Intertie or not even operating. This appears to find guilt by association, much like attempting to convict parties of murder because they own a weapon that could kill people. We do not believe such an allocation reduction scheme will stand a challenge in the courts.

BPA Should Not Attempt to Supercede Congress

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During 1986, the U.S. Congress passed legislation governing new licenses and relicensing of FERC projects. These new laws contain some of the strictest environmental and fish and wildlife provisions ever passed by Congress. Clearly, Congress intended to impose severe restrictions on new hydro projects. BPA's proposal for new hydro development goes beyond what Congress requires of FERC under the new law. For BPA to attempt to exceed and supercede the expressed intent of Congress, not four months after new legislation on hydro projects, is beyond the powers of the Administrator.

Bonneville Should Not Adopt Short-Term Trends

BPA should not be "trendy" in such policies as a long-term Intertie Access Policy. Less than a decade ago, new hydro projects were among the "darling" resources expected to save us from an energy crisis. Now, due to concerns for fish and wildlife and low oil and gas prices, new hydro is considered to be the "ugly duckling" resource. We can envision a scenario where a few years from now a new OPEC agreement raises oil prices and in the U.S. once again must turn to Canada for natural gas supplies. With such a scenario we could find ourselves shifting from coal plants and C.T.s back to renewable resources. Acid rain may become the new environmental issue of the day and we will find BPA being pressured to restrict intertie access based on emission standards.

It is important for long-term stability that BPA use the Intertie Access Policy as an appropriate energy management tool and leave the environmental regulation to the appropriate entities and mechanisms.

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BPA the Activist Not the Policeman

All the region's utilities and direct service customers want BPA to be aggressive regarding the Administrator's responsibilities for protection of fish and wildlife. All the nonfederal project operators are serious regarding their requirements to provide proper mitigation and protection for fish and wildlife at their projects. Bonneville customers do not want "bad" hydro projects built or operated that will reflect adversely on the positive activities the utilities have undertaken on behalf of fish and wildlife. Lastly, BPA should actively protect its investment in fish and wildlife provisions and projects.

To attempt to resolve our concerns, we suggest BPA rewrite its provisions C. 3 c (1)(2)&(3) found on page 4 of the draft Intertie Access Policy. Such a rewrite should reflect a BPA role of activist against any threat for substantial adverse impacts to fish and wildlife with the appropriate federal and state entities rather than BPA attempting to become a fish and wildlife policeman.

We suggest the following language for a new section which replaces Section C.3 c (1)(2)&(3).

At any time the Administrator determines that an existing or proposed Pacific Northwest Resource within the Columbia River has the potential to substantially and adversely impact fish and wildlife in a manner that results in a substantial decrease in the effectiveness of, or a substantial increase in the need for, expenditures or other actions by the Administrator to protect, mitigate or enhance fish and wildlife; or otherwise substantially interferes with the obligations of the Administrator under the Pacific Northwest Power Act to adequately

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protect, mitigate, or enhance fish and wildlife including taking into account in each relevant stage of decision making processes to the fullest extent practicable the Fish and Wildlife Program adopted by the Northwest Power Planning Council pursuant to the Pacific Northwest Power Act; the Administrator shall take all appropriate and necessary action with the applicable licensing or regulatory state and federal bodies to ensure elimination of the substantial adverse fish and wildlife impacts or restriction of generation until compliance is provided.

On pages 12 and 13, BPA should revise its proposed wording under Procedures for Review of Compliance and Remedies to reflect how the Administrator will make the determination of the need to become an activist in the regulatory processes.

Thank you for the opportunity to comment, and we hope our comments are taken in the constructive nature they are intended.

Sincerely,

Al Wright
Executive Director

AW:tq:156S

DRAFT

December 23, 1986

Donna L. Geiger
Bonneville Power Administration
1002 N.E. Holladay
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Ms. Geiger:

This letter represents PNUCC's comments on the Bonneville Power Administration Draft Intertie Development and Use Environmental Impact Statement (IDU-EIS). Due to the numerous other issues requiring attention in the last month, we have not been able to give this document the detailed review that it deserves. As a result, we have concentrated on fish and wildlife effects due to the changes in hydropower operation (Section 4.5 of the EIS). In summary, we believe BPA used the best models and analysis available to evaluate the impacts to fish and wildlife. However, we do not agree with all of BPA's interpretations of the results. PNUCC believes that the results of the analysis viewed with a more realistic criteria for determining levels of significance show no significant impacts on fish and wildlife within the range of practical Intertie operation and use.

Hydro Operations

Changes in hydro operations using various Intertie use scenarios result in insignificant fish and wildlife impacts. BPA's detailed analysis and results verify our intuitive judgments that changes in hydro operations resulting from Intertie policies have little impact on fish and wildlife. The hydro system is normally operated at its optimum capability because it is the least expensive source of energy available to the Northwest. The only changes in hydro operations which have any measurable impact on fish are Intertie changes which increase generation and reduce inadvertent spill or re-regulate river flows. Opportunities to increase hydropower generation are limited. Therefore, as the Intertie capacity is increased, it will not greatly alter systemwide hydro operations.

The capacity and policy alternatives examined by BPA bracket the likely possibilities and, therefore, reveal the maximum impacts that might occur. BPA's results showed that there is no more than a 1 percent increase in hydrogeneration (ref. Section 4.2.3.2.1). Further, BPA determined that the 1 percent increase was insignificant due to an inability to accurately measure such small incremental changes.

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The Corps' FISHPASS model is an improvement in the region's analytic capability and represents the best method available for evaluating hydropower operational effects on fish survival. However, there is much uncertainty associated with several FISHPASS input parameters. An example of one of these input parameters is turbine related mortality for juveniles. This subject was debated during the recent Rock Island Dam relicensing proceedings before FERC. Several experts presented estimates of turbine mortality that ranged from 11 to 15 percent. Slight variations in such parameters as turbine mortality can lead to large difference in overall survival estimates. The Regional Council's Mainstem Passage Advisory Committee has been examining the sensitivity of changes in input parameters on FISHPASS model results. Their results indicate that a 1 percent change in turbine mortality assumption effects fish survival by 2 to 3 percent. The range of estimates for turbine mortality would result in up to a 12% change in predicted systemwide survival.

Because of these uncertainties associated with the input assumptions, like turbine mortality, changes of 1 or 5 percent system survival represent no more than modeling noise. PNUCC suggests that BPA use a criteria for a change in systemwise survival somewhere in the range of 5 to 10 percent as a minimum for indicating significant impact.

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system are too variable and complex to attribute such a small probability of change to a particular action or cause. A likelihood of occurrence of 5 to 30 percent, even given acceptable ranges of incremental changes in magnitude, is too low a probability to be given significance. PNUCC believes that a measurable change would have to occur 30 to 50 percent of the time under variable conditions to attribute it to a particular cause. We suggest that BPA change this component of their criteria accordingly.

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Fishery Mitigation

In Section 4.5, BPA has suggested measures to mitigate the apparent reduced survival of several stocks of downstream migrants. It should be kept in mind that effects of the hydro system operations are being fully mitigated through other programs. These programs, developed for both federal and nonfederal dams, assumes operation at hydraulic capacity 24 hours a day, 365 days a year. Bonneville's discussion of the effects of the hydro system on fish and potential for additional mitigation ignores this important consideration.

Examples of such programs include the Lower Snake Compensation Plan and the Council's Fish and and Wildlife Program. Thus, even if a significant impact from changes in the hydro operations had been identified, those impacts would already have been mitigated under the current and ongoing programs and agreements. Consideration of additional mitigation is double accounting. Bonneville should therefore delete the section on page 4.5-28 "Spill and Flow Effects on Survival: Possible Mitigation Measures."

Resident Fish (Comment yet to be developed.)

Other Concerns

PNUCC agrees with BPA's general conclusion that there would be no irretrievable or irreplaceable loss of fisheries due to possible changes in the hydro system operations as a result of changes in the capacity or use of the Intertie. System operations could be modified rapidly, thus no irreversible impacts or irreplaceable losses are expected.

In conclusion, PNUCC believes that Bonneville has used the best methods available and reasonable assumptions to analyze the effects of changes in the capacity or use of the Intertie on fish and wildlife. We believe BPA has gone beyond the ability to measure in establishing standards of significance and should reevaluate those standards. We are certain that the minor fluctuations that result cause no significant impacts to juvenile migrants. PNUCC recommends that the Final EIS reflect this lack of significant impacts.

Thanks for the opportunity to comment.

Sincerely,

Al Wright
Executive Director

AW:lp:156V

Previous PNUCC Comments on Intertie Access Policy

1. Letter to Ed Sheets, NWPPC, from Randall W. Hardy, PNUCC, Re: Comments on the Council's Issue Paper on the Near-Term Intertie Access Policy. March 13, 1984.

2. Authorities of BPA and NWPPC with Respect to Management of the Pacific Northwest - Pacific Southwest Intertie. Memo prepared for PNUCC by Culp, Dwyer, Guterson, and Grader. March 14, 1984.

3. Letter to Donna Geiger, BPA, from Randall W. Hardy, PNUCC, Re: Comments on BPA's discussion paper of Intertie Access Policy. March 16, 1984.

4. Letter to Petter T. Johnson, BPA, from Randall W. Hardy, PNUCC, Re: Final Comments on BPA's Near-Term Intertie Access Policy. August 13, 1984.

5. Letter to Donna Geiger, BPA, from Diana E. Snowden, PNUCC, Re: Comments on Revised Interim Access Policy. March 14, 1985.

6. Letter to Ed Sheets, NWPPC, from Diana E. Snowden, PNUCC, Re: Comments on the Intertie Access Policy Issue Paper. April 24, 1985.

7. Letter to Donna Geiger, BPA, from Al Wright, PNUCC, Re: BPA's Draft Long-Term Intertie Access Policy. April 4, 1986.

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

March 13, 1984

Mr. Ed Sheets
Executive Director
Northwest Power Planning Council
700 S.W. Taylor
Portland, OR 97205

Subject: Intertie Access Policy

Dear Ed:

This letter, and the attached legal analysis, respond to the Northwest Power Planning Council's request for comments on its staff issue paper of February 28, 1984. These PNUCC comments will address only staff recommendations that BPA's intertie access policy be consistent with the Council's Energy Plan and Fish and Wildlife Program. Due to time limitations imposed by the comment process, these comments have not been fully reviewed by our Executive Committee, and hence do not represent an official PNUCC position. I have discussed the general thrust of our comments with several committee members, however, and believe they are representative of utility and industry views on the matter.

The staff recommendation of most concern to Northwest utilities involves a Council requirement that "Firm access to the Intertie should be granted only to utilities whose new resources are consistent with the Council's Plan, including the Fish and Wildlife Program." The attached legal analysis details our reasoning that the staff recommendation would represent an unlawful extension of the Council's present planning authority. This letter deals primarily with the questionable policy aspects of such a recommendation.

General Comments

While the staff's consistency proposal relates to two separate Council plans, there are several practical considerations which apply to both Council energy and fish and wildlife activities:

1. Questionable Staff Assumption

   Underlying the staff recommendations is an assumption that BPA will not acquire many resources in the future. Instead, staff assumes that non-federal utilities will develop their own resources independently of BPA, using the "sales option" approach. This is a highly questionable assumption. The region's generating utilities are currently capital and load constrained from developing many new resources--a condition which may exist well into the

PNUCC 520 SW SIXTH AVENUE, SUITE 505 PORTLAND, OR 97204 (503) 222-9343

future. These same utilities have also had several unpleasant and costly experiences with development of major generating resources. As a result of these factors, the majority of non-federal utilities could well look to BPA resource acquisitions over the long-term as being the best way of avoiding resource development risks themselves. While this is not a certainty, utilities have strong incentives to react in such a manner, especially in light of their own recent experience. By not even considering this possibility, the staff designs a highly regulatory solution for what may be a largely non-existent problem.

2. Consequences of BPA Judgment

If staff recommendations were implemented, BPA would become the sole judge of whether a particular resource was consistent with the Council's Plan. As the attached legal analysis shows, BPA's discretionary authority to so condition intertie access is doubtful at best. For the Council to urge BPA to exercise authority in areas where such authority is not clear, however, invites BPA to condition intertie access on subjective criteria which may have little to do with the economic tradeoffs involved. Given the proliferation of BPA-utility disputes in areas where ground rules were thought to be clearly defined, allowing BPA to utilize judgmental decision-making in yet another matter would likely invite additional disputes among all parties. The region needs less divisiveness, not more, and the staff recommendations seem guaranteed to produce the latter result.

Energy Plan Consistency

Staff recommendations relative to Energy Plan consistency have their own set of problems.

1. Intrusiveness

If followed as written, staff recommendations would involve the Council and BPA in virtually every aspect of utility planning and operations. As the staff paper itself recognizes, general consistency with the Energy Plan "could require . . . (Council) review of individual utilities' conservation programs and entire resource strategies." Aside from its questionable legality, this role would have the Council and BPA second-guessing, and possibly even directing, literally hundreds of individual utility planning and operating decisions. This degree of Council intervention would: (1) bring the Council squarely into conflict with the oversight responsibilities of state utility commissions and individual public utility boards; and, (2) dilute utilities' responsibility to their ratepayers for a multitude of management decisions. It would also conflict with the "local control" protections of the Regional Act.

2. Utility Independence

The Regional Act explicitly preserved the independence of non-federal utilities to develop resources outside the Council's framework. Legal arguments aside, there were good policy reasons for the Congress to preserve

such autonomy. While the Council possesses a general planning responsibility, that responsibility extends only to BPA resource acquisitions. The Congress recognized that individual utilities might wish to develop resources independently for a variety of legitimate reasons. For example, utilities might wish to "go their own way": (1) specifically to avoid any dependence on BPA; (2) to displace more expensive resources already on their systems; (3) to make better use of secondary energy available from their own resources or from BPA; or, (4) because they believed that Council resources planned for BPA acquisition did not provide individual utilities with sufficient reliability or with an adequate expectation of cost effectiveness. These are but a few of many reasons why individual utilities will not want to be bound by a blanket consistency requirement such as that proposed in the staff issue paper. This position does not imply that utilities contemplate willy nilly development of resources which are inconsistent with the Council's Plan or Program. It is a simple matter of individual utility autonomy and the priority obligations of each utility to its own ratepayers. To the degree staff recommendations are followed, that autonomy is ceded to the Council and Bonneville and direct utility obligations to ratepayers are potentially superseded by Council and Bonneville judgment. This outcome would make the Council, through its Plan and Program, the de facto controller of all resource development in the Northwest, since nearly all resources would require some transmission service from BPA. It would also catapult the Council, by virtue of controlling such development through access to the intertie, into the arena of resource operations--making it the overall regional regulator for electric energy in the Northwest, with all the attendant legal and staff consequences.

3. Legality

As the attached legal analysis makes clear, the Council, because its planning authorities were specifically limited by Congress, does not have authority to condition intertie access, or to require BPA to condition such access, on consistency with the Energy Plan. Further, BPA's discretion to condition intertie access appears limited principally to utility actions which substantially interfere with Bonneville's own marketing program. It appears that, even for much more limited consistency requirements than those suggested in the staff issue paper, Council authority simply does not exist, and even the scope of BPA's discretion is limited. It seems, therefore, that conditioning intertie access on any consistency requirement must be a matter of mutual agreement among the parties involved, and not subject to unilateral action by either the Council or BPA.

Fish and Wildlife Program Consistency

There are also several aspects of any consistency requirement which are unique to the Council's Fish and Wildlife program.

1. FERC Role

The Regional Act specifically preserved the Federal Energy Regulatory Commission's (FERC) role in regulating hydro development. While FERC must take account of the Council's Program to the maximum extent practicable, it still retains the final licensing approval for Northwest hydro projects. Legal arguments aside, tying hydro development to consistency with the Council's Program would present utilities with another, and potentially conflicting, set of regulatory requirements. It could cause the imposition of all manner of "mitigation" requirements, simply because the Council unilaterally inserted such requirements into the Program. Section 4(h) of the Regional Act did not alter FERC's status as the ultimate arbiter of non-federal hydro development in the Northwest, in large measure to avoid conflicting regulatory directives among the Council and various other federal agencies. To the degree the Council directly controls hydro resource development through other means, it greatly confuses what are currently clear lines of authority and accountability.

2. Utility Independence

The reasoning here generally parallels that suggested under Energy Plan consistency. The Congress preserved utility prerogatives to develop and market hydro resources, subject ultimately to FERC jurisdiction. This autonomy was intentionally preserved to allow independent development of new hydro resources, while still establishing an aggressive 4(h) program to deal with past hydro damage. If the staff recommendation were implemented, Council judgment on fish mitigation measures for any hydro project would be substituted for FERC's assessment, at least for any resource which required BPA transmission. It would again make the Council the de facto regulator of all hydro development in the Northwest--a role which it is neither authorized nor equipped for perform.

3. Legality

As described in the attached memo, legal arguments for Fish and Wildlife Program consistency differ from those regarding Energy Plan consistency. Council staff is apparently relying on a reference to "authorities available to the Administrator" in Section 4(h)(10) of the Regional Act to sanction consistency with the Program. Two points are relevant. First, by definition, the Council's Program only applies to the Columbia River and its tributaries (Section 4(h)(1)(B)). Any hydro development in western Washington is thus unaffected, regardless of what Program consistency requirements are finally imposed. Second, the Regional Act reference to "authorities available to the Administrator" refers to the Administrator's expenditure authorities for fish and wildlife activities. This is quite clear when that phrase is read in

conjunction with: (1) other provisions of the Act; (2) the legislative history for Section 4(h)(10); and, (3) the specific language of Section 4(h)(11) (which establishes the standards to guide BPA in administering its general responsibilities). To interpret these provisions more broadly would logically require BPA's ratemaking, contracting, transmission and all other power management activities to be subject to the Council's Fish and Wildlife Program. It is our view that this result clearly was not intended by Congress, and that such action is, therefore, not supported by the Regional Act or other applicable statutes.

Conclusion

As is apparent from the above comments and the attached legal analysis, the region's utilities strongly believe that blanket consistency requirements, such as those proposed in the staff issue paper, represent neither good law nor good policy. Their adoption will just further increase the contentiousness which already surrounds BPA's intertie access policy. This would be unnecessary and particularly unfortunate as not much new resource development will likely take place in the Northwest for several years. The main way in which such resources might be developed, in the near term, would be as part of an overall surplus sale to California utilities. The Council is well aware of the status of our discussions with California entities, and of the distinctly different consistency requirements contemplated under that particular arrangement. It would be truly unfortunate to complicate problems faced in negotiating a long-term surplus sale by applying blanket consistency requirements to BPA's generic intertie access policy.

More broadly, the Regional Act established the Council, along with BPA, the region's utilities and other interested parties, in order to help move all entities toward cooperative solutions to Northwest electrical energy problems. The Council, like BPA, works best when it serves as a catalyst for solutions to these problems. Council attempts to mandate solutions on any of the parties involved, especially when the probable need for such broad mandates is largely theoretical (in light of expectations for resource development), will be strongly resisted. This resistance will inevitably hamper the ability of all regional entities to plan the Northwest's energy future.

For these reasons, we urge the Council to abandon any broad consistency requirements for BPA's intertie access policy. It should instead focus on resource consistency as part of a long-term surplus sale, or in the context of its already prescribed responsibilities under Section 6 of the Regional Act.

Sincerely,

Randall W. Hardy
Executive Director

R.W.Hardy:119U

Attachment

attach
7E-1-8C

AUTHORITIES OF BONNEVILLE POWER ADMINISTRATION AND NORTHWEST POWER PLANNING COUNCIL WITH RESPECT TO MANAGEMENT OF THE PACIFIC NORTHWEST - PACIFIC SOUTHWEST INTERTIE

Memorandum Prepared for
Pacific Northwest Utilities Conference Committee
by Culp, Dwyer, Guterson & Grader

Presented to
Northwest Power Planning Council
March 14, 1984 Eugene, Oregon

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I.

INTRODUCTION

This memorandum addresses the authorities of the Bonneville Power Administration ("Bonneville") and Northwest Power Planning Council ("Council") with respect to management of the extra-high voltage Pacific Coast intertie, under Pub. L. 96-501 ("Regional Act") and other applicable authorities. Bonneville is currently formulating an intertie access policy, which it intends will govern its own and others' use of the intertie. The Council is considering asserting that Bonneville's management of the intertie must be consistent with the Council's plan and fish and wildlife program adopted under the Regional Act.

Such an assertion raises three questions which will be addressed below:

(1) Does the Council have authority to include in the plan or program matters relating to Bonneville's management of the intertie?

(2) Is Bonneville's management of the intertie subject to the requirement of consistency with the plan or program?

(3) If the Council has no authority to control Bonneville's management of the intertie through the requirement that Bonneville's intertie policy be consistent with the plan or program, what is the extent of Bonneville's discretion with respect to its intertie contracts?

Only if questions (1) and (2) can be answered in the affirmative can the Council's assertion of authority be maintained. If the

Council does have authority in this area, the scope of Bonneville's discretion under (3) would be narrowed to the extent of that Council authority.

This memorandum will address Bonneville's and the Council's sources of authority, particularly with respect to the intertie, and rules of statutory construction applicable to such authority.

II.

SUMMARY

The Council's role under the Regional Power Act is an exercise in federalism, wearing the clothing of an interstate agreement, or compact. Under the Act, Congress has consented to share with the Pacific Northwest states certain authorities, as to which the states have an interest, but which relate more fundamentally to a peculiarly federal subject — electric power and facilities managed by Bonneville. Under such an arrangement, the Northwest states, through the Council, enjoy only such authority as was consented to by Congress in approving the interstate agreement consummated pursuant to 16 U.S.C. § 839b(a).

In the Regional Power Act, Congress set forth for the interstate Council the principal task of adopting a plan, including a fish and wildlife program, with certain prescribed effects on Bonneville's administration on the federal power system in the Northwest. In addition, the Council was granted authority to review Bonneville's decisions relating to major resources for consistency with the plan, and to seek other Bonneville actions with respect to conservation and resource

acquisition, as set forth in Sections 4 and 6 of the Act. None of the authorities granted to the Council under the Act address, or any way contemplate, the Council's overseeing Bonneville's management of the federal transmission system in the Northwest.

For the most part, the Regional Act simply "ratifies" Bonneville's pre-existing policies with respect with affording transmission service, including service over the intertie, to its customers. Provisions in the Regional Act relating to the granting of transmission service and Bonneville's furnishing of marketing assistance to its customers in disposing of surplus power conspicuously omit any mention of the Council. These matters relate to a federal agency's management of federal property, and were not included in the portfolio Congress consented to have the Council hold under the Regional Act. In view of the specific, detailed provisions by which Congress did consent to Council involvement in other federal property matters under the Act — notably those related to Bonneville resource acquisitions — and the absence of such provisions related to transmission, it is clear that no Council direction or control of Bonneville's transmission management policies was provided for by Congress in the Regional Act.

Congress did set forth at Section 9(i) of the Act certain conditions governing Bonneville's granting of surplus power marketing assistance to its customers, and transmission and services related to such assistance. Bonneville enjoys some discretion with respect to its interpretation and implementation of the

policies expressed at Section 9(i), which it may address in formulating its intertie access policy. However, Bonneville must interpret the conditions of Section 9(i) consistent with other applicable provisions of federal law. Under these provisions, Congress has expressed a strong and clear intent that Bonneville provide utilities transmission service over the intertie and Bonneville's other transmission facilities, and that Bonneville provide transmission service for resources developed independently outside the Regional Act process.

III.

THE SCOPE OF BONNEVILLE'S AND THE COUNCIL'S AUTHORITY UNDER LAW DOES NOT SUPPORT THE COUNCIL'S ASSERTION OF AUTHORITY WITH RESPECT TO BONNEVILLE'S TRANSMISSION SYSTEM

A. Congress Has Directed Bonneville To Transmit Power For Its Utility Customers, Both Within and Outside the Northwest.

Among federal power marketing agencies, Bonneville has powers second only to those granted to the Tennessee Valley Authority. Since Bonneville's inception, Congress has expanded Bonneville's role in Northwest power matters, both through new enactments and through amendments to existing laws.

1. Bonneville Transmission Authority Under Prior Enactments.

Bonneville was established by Congress under the Bonneville Project Act in 1937 as the federal marketing agency for power generated at federal dams in the Pacific Northwest. 16 U.S.C. §§ 832 et seq. Bonneville is authorized to construct, operate and maintain transmission facilities to permit wide

distribution of electric energy, as part of the original Project Act. 16 U.S.C. § 832a(b).

Under the Act of August 31, 1964 ("Regional Preference Act"), 16 U.S.C. §§ 837 et seq., Bonneville is required to offer power for sale in the Pacific Northwest prior to contracting to sell it to entities in other regions. As part of that Act, Bonneville is directed to use its transmission interties with other regions to serve "as a carrier for transmission of [non-federal] electric energy" between the Northwest and other regions. 16 U.S.C. § 837e. So strong is Congress's direction to transmit non-federal power over such interties, that Section 6 of the Act provides in part

> no contract for the transmission of non-federal energy on a firm basis shall be affected by any increase, subsequent to the execution of such contract, in the requirements for transmission of federal energy. . . .

Ibid.

Thus, by Congress's direction, even Bonneville's desire at a later time to transmit additional federal power over the intertie could not take precedence over a Bonneville commitment to transmit powers for others — which commitment Bonneville was required to give, if excess capacity was available. See also H.R. Rpt. No. 590, 88th Cong., 2d Sess., reprinted in 1964 U.S. Code Cong. and Ad. News at 3350.

In 1974, in the Federal Columbia River Transmission System Act ("Transmission Act") 16 U.S.C. §§ 838 et seq., Congress granted Bonneville self-financing authority, for the

purpose of maintaining and extending the federal transmission network operated by Bonneville in the Northwest, and for other purposes. In Section 6 of that Act, Congress extended its requirement in the Regional Preference Act that Bonneville transmit power over its interties for non-federal entities, by directing Bonneville to transmit power for others throughout its system.

> The Administrator shall make available to all utilities on a fair and nondiscriminatory basis, any capacity in the federal transmission system which he determines to be in excess of the capacity required to transmit electric power generated or acquired by the United States.

16 U.S.C. § 838d.

2. Bonneville Transmission Authority Under the Regional Act.

In the Regional Power Act, Congress further defined Bonneville's responsibilities with respect to transmission of power for utilities. In sections 9(c) and 9(d) of the Regional Act, Congress specifically recognized the right of Bonneville's customers to sell power outside the Northwest

> from any existing or new non-federal resource if such sale, exchange, or disposition does not increase the amount of firm power the Administration would be obligated to provide to any customer.

16 U.S.C. § 839f(d).

The same section goes on to direct that

> the Administrator shall provide transmission access, load factoring, storage and other services . . . to such utilities and shall not discriminate against a utility or group thereof on the basis of independent development of such resource in providing such services.

Ibid. (emphasis added).

In the Regional Act, Congress clearly and specifically reserved for Bonneville's utility customers the right to independently develop their own resources, outside the Act's planning and acquisition scheme. 16 U.S.C. §§ 839(5), 839g and see, infra. Sec. III.B.4.

The Regional Act also extends Bonneville's duties with respect to marketing of surplus power by its customers, by requiring Bonneville to assist its customers in such sales, within or without the region, if such action is

> not in conflict with the Administrator's other marketing obligations and the policies of this chapter and other applicable laws.

16 U.S.C. § 839f(i)(1)(B). Bonneville is directed to provide transmission and other services to customers with respect to such surplus power marketing assistance

> unless [the Administrator] determines such services cannot be furnished without substantial interference with his power marketing program, applicable operating limitations or existing contractual limitations.

16 U.S.C. § 839f(i)(3).[1/]

The requirement in Section 9(i)(1) of the Regional Act that Bonneville's marketing assistance not be in conflict with

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1/ It is important to note that the limitations of paragraph (3) modify the provisions of its subsection 9(i) dealing with surplus power marketing, and do not affect Bonneville's obligations to provide firm power transmission service for firm resources under the Transmission Act, for example.

the "policies" of the Act, which "policies" are not explicitly defined in the Act, is discussed below at Section V.

To summarize, then, for at least the past 20 years, Congress has required that Bonneville transmit non-federal power for its utility customers over federal intertie facilities, even when doing so would interfere with additional extra regional sales of federal power Bonneville itself might make. Only "substantial interference" with Bonneville's marketing program (as well as certain technical limitations not germane here) would excuse Bonneville's refusal to transmit even surplus power for its customers.

B. The Council, As the Creature of an Interstate Agreement, May Not Exceed the Authority Granted to It By Congress.

1. Background of the Council's Establishment.

The Regional Act provides for a Power Planning Council to be established either (1) pursuant to an agreement among the Northwest states, or (2) by appointment of the Secretary of Energy upon failure of the states immediately to form the Council, or upon invalidation by federal courts of the state-appointed Council's exercise of any of its substantial functions. 16 U.S.C. §§ 839b(a)-(c). The Council's principal task is to adopt a regional conservation and electric power plan ("plan"), including a fish and wildlife program ("program"), which Bonneville would have to take account of in the manner set forth at 16 U.S.C. §§ 839b, 839d.

The Council is characterized in the Act as the creature of an interstate compact or agreement[2/] because a compact was a convenient and readily understood means by which Congress might consent to an exercise of authority by states that, but for Congress's consent, might otherwise be unconstitutional. See, e.g., Virginia-Tennessee, 148 U.S. 503, 37 L. Ed. 537, 13 S. Ct. 728 (1893); U.S. Steel v. Multistate Tax Commission, 434 U.S. 452, 54 L. Ed. 2d 682, 98 S. Ct. 799 (1978). Northwest proponents of the regional legislation, including Northwest states, had favored establishment of a state-controlled planning body which would guide Bonneville's exercise of its contemplated new authority to acquire resources. However, establishment of such a body under S. 885 (as the regional power bill was then known), as it passed the Senate in 1979, brought forth concerns from the Department of Justice and others that such a Council would be unconstitutional; Justice opined that the S. 885 Council might violate the appointments clause of the U.S. Constitution because it would consist of state-appointed officers acting as federal

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2/ The "compact clause" of the Constitution provides in pertinent part

> No State shall, without the Consent of Congress . . . enter into any Agreement or Compact with another State, . . .

U.S. Const. Art. I, § 10, cl. 3.

The correlative of the compact clause's prohibition is that any interstate agreement approved by Congress, just as any other statute, is presumed to be valid.

officials under a federal law, in part, by virtue of controls the Council would exercise over Bonneville with respect to its management of federal property.3/

Because of the continuing support of Northwest interests for a state-appointed Council, research was undertaken to determine if a mechanism could be found to satisfy the desire for establishment of a state-appointed Council, capable of exercising some authority over Bonneville, which would also pass constitutional muster. In March, 1980, when the House Committee on Interstate and Foreign Commerce (now the Committee on Commerce and Energy) completed its markup and reported its amendment of S. 885, this research was not yet complete, so the House Commerce Committee bill dealt with the still unresolved constitutional problem by providing for a federally-appointed Council. H.R. Rpt. No. 976, Part I, 96th Cong., 2d Sess., 4, 5 (1980). However, when the bill was taken up by the House Committee on Interior and Insular Affairs, regional proponents of the legislation had coalesced around an analysis which indicated that the state-appointed Council could lawfully exercise the functions intended for it, so long as Congress explicitly consented to the scheme and the responsibilities assigned to the Council were ones in

3/ See Hemmingway, The Northwest Power Planning Council: Its Origins and Future Role, 13 Envtl. L. 673, 680-682 and n.30 (1983) (hereinafter cited as "Hemmingway") discussing constitutional questions raised by the Department of Justice in letters from Alan A. Parker, Asst. Attorney General to the Chairmen of the House Commerce Committee and Interior Committee Subcommittees dealing with the legislation.

which the states had recognized interests and authority to act; establishment of the Council as the product of an interstate agreement was the principal means set forth in the analysis and agreed upon to accomplish the desired result. Hemmingway, supra n.3 at 687-89.

In September, 1980, the House Interior Committee reported a bill consenting to establishment of a state-appointed Council under an interstate agreement, with provision for a federally-appointed Council only in the event the states failed to act or federal courts invalidated the State Council. The House reconciliation bill, which adjusted differences between the House Commerce Committee and House Interior Committee bills, essentially adopted the Interior bill Council provisions intact.

2. Relevant Limitations Applicable to Interstate Agreements.

An interstate compact or agreement becomes, upon Congress's consent, a law of the United States. Delaware River Commission v. Colburn, 310 U.S. 419, 84 L. Ed. 1289, 67 S. Ct. 1039 (1940), Cuyler v. Adams, 449 U.S. 433, 438, 66 L. Ed. 2d 641, 101 S. Ct. 703 (1981). Construction and interpretation of an interstate agreement is a matter of federal law to be decided by a federal court. Petty v. Tennesse-Missouri Bridge Commission, 359 U.S. 275, 279-80, 3 L. Ed. 2d 804, 79 S. Ct. 785 (1959). States, by becoming parties to an interstate agreement or compact and acting under its terms, assume the conditions imposed by Congress in giving its consent. Id. at 281.

3. Congress Carefully Described the Interstate Council's Authority Under the Regional Act.

The principal task of the Council throughout the legislative evolution of the Regional Act was to develop a plan intended to guide and limit Bonneville's newly granted authority to acquire resources.

> The states feared that without a regional planning authority responsible to the states, BPA's decisions on what new generating plants should be built would simply overwhelm the state planning and siting process.

Hemmingway at 679.

Congress was well aware of constitutional and practical problems which might be presented by too broad a grant of authority to the Council. The reports of both House Committees made clear that the Council's adoption of the plan was its "principal responsibility" and "chief task." H.R. Rpt. No. 976, Part I, 96th Cong., 2d Sess., ("Commerce Committee Report") 54 (1980); H.R. Rpt. No. 976, Part II, 96th Cong. 2d Sess., ("Interior Committee Report") 33 (1980).

Congress was also well aware of the enormity of the planning responsibilities it was heaping on the new Council. Commerce Committee Report, 54. Partly for that reason, and partly because of constitutional problems which would be posed by an open-ended Council plan, a very significant amendment was made by the Interior Committee to the bill's description of the plan. Along with its replacement of the Commerce Committee bill's federally-appointed Council with a state-appointed Council, the

Interior Committee limited the scope of the plan to the precise elements set forth at § 4(e)(3).

The Commerce Committee bill had provided that the plan should consist of "but not be limited to" the elements set forth as part of the plan. Commerce Committee Report, 6. However, the later Interior Committee bill cut off the Council's ability to decide what elements should be included in the plan, specifying instead that the plan should consist of the precise elements set forth — no more, no less — in whatever detail the Council believes appropriate. Interior Committee Report, 6.

In commenting on the change, the Interior Committee said

> This section makes it clear that only these elements will be included in the plan and that the Council has full discretion to determine the amount of detail that is appropriate for each element in the plan.

Interior Committee Report, 43.

Although Congress permitted many elements to be included in the plan — some of them in great detail — none of the elements described or discussed in the Interior Committee Report at pp. 6-10, 42-46 mentions "transmission," "interties," management of the Bonneville transmission system, or anything of the kind, in the context of the Council's plan or program. In fact, except for its duty to take account of transmission costs and other factors in prescribing a forecast of new resources pursuant to § 4(e)(3), the words "transmission" and "intertie" are not mentioned, in the context of the Council's responsibilities, from

one end of the Regional Act to the other.[4/] In the one section in which Bonneville's transmission duties and state interests are addressed — Section 7(m), dealing with impact aid programs to Northwest states — the Council is given no responsibilities at all. 16 U.S.C. § 839e(m).

4. Congress Reserved Important Controls to State and Local Governments and Utilities.

The Council has posited what appears to be a reasonable proposition: that Bonneville should not furnish transmission service over the intertie for resources which are inconsistent with the plan or program. However, the Regional Act does not grant the Council or Bonneville authority to impose such a consistency requirement with respect to transmission service. Moreover, the Act reflects a clear intent that the control and

4/ Elements of the plan under the Regional Act are limited to:

(a) an energy conservation program;

(b) research and development recommendations;

(c) a method for determining quantifiable environmental costs and benefits;

(d) a 20-year resource and demand forecast;

(e) an analysis of reserve and reliability requirements;

(f) the fish and wildlife program; and

(g) if conservation surcharges are recommended, a method for calculating such surcharges.

16 U.S.C. § 839b(e)(3).

autonomy of local utilities not be impaired; in general, only if utilities offer resources to Bonneville for its acquisition do the "consistency" and other regulatory provisions of Sections 4 and 6 of the Act come into play.[5/]

The local control provisions of the Act make clear Congress's intent that:

(1) Bonneville's utility customers be free to develop and use their own resources outside the policies of the Act as they see fit, 16 U.S.C. §§ 839(5), 839g(a); and

(2) Bonneville should provide transmission service without regard to whether the resource for which transmission service is sought has been developed independently of the Regional Act, 16 U.S.C. § 839f(d).

As described by the Interior Committee, this latter subsection

> requires BPA to provide available services and facilities to . . . utilities for such sales, and prohibits BPA from discriminating in the provision of such services against any utility or group thereof on the basis of their independent development of resources. Both parts of this subsection therefore preserve the individual and collective independence of utilities and groups of utilities, as well as reaffirming the requirement contained in Section 6 of the Federal Columbia River Transmission System Act that BPA make available on a

5/ The one notable exception to this is the requirement of subparagraph 4(h)(11)(A), applicable only to hydroelectric projects on the Columbia River or its tributaries, that FERC and other federal agencies take account of the fish and wildlife program in their decision-making.

> fair and non-discriminatory basis Federal Transmission System capacity in excess of the capacity required for power generated or acquired by the United States.

Interior Committee Report, 55 (emphasis added).

In the absence of a "consistency with the plan" standard, which Congress could easily have provided as it did with respect to other matters, there is no basis for the Council or Bonneville to apply such a standard.

Bonneville is not without some discretion if it undertakes to furnish surplus power marketing or related transmission service to its customers, however. Under § 9(i) of the Regional Act, Bonneville may address the question of whether furnishing the service would conflict with Bonneville's own marketing program, or with the policies of the Act or other applicable laws. Bonneville may address fish and wildlife matters as part of its "policies" review under § 9(i), but it may not impose a "consistency" requirement when it is so clear that this was not intended by Congress. See also Sec. IV.C., below.

IV.

CONGRESS DID NOT INTEND THE COUNCIL TO REGULATE BONNEVILLE'S MANAGEMENT OF ITS TRANSMISSION SYSTEM IN ANY MANNER

The Bonneville Project Act, Regional Preference Act, and Transmission Act are the principal laws setting forth Bonneville's transmission authority and its duties to transmit for its utility customers. Passage of the Regional Act clarified and extended somewhat Bonneville's transmission responsibilities with respect to its customers, but did not substantially change

its obligations in this area. See, generally, Sec. III.A., supra.

A. The Council's Plan May Not Direct Bonneville's Management of the Federal Transmission System.

The primary purposes of the Regional Act were to determine the allocation of federal power among competing claimants and to grant Bonneville authority to acquire power resources. Central Lincoln Peoples' Utility District v. Johnson, 686 F.2d 708, 714 (9th Cir. 1982), cert. granted ____ U.S. ____, 75 L. Ed. 2d 928 (198_).

The chief task of the Council to which Congress consented in the Regional Act was to prepare a plan to guide Bonneville in the exercise the major new authority granted Bonneville under the Act — the acquisition of additional resources. Interior Committee Report, 33. With respect to major resource acquisitions, the Council is permitted to determine if a proposed acquisition is consistent with the plan, see, e.g., 16 U.S.C. § 839d(c), but it has no such power with respect to non-major resources, nor, indeed, with respect to any other aspect of the plan.

The Regional Act grants the Council no authority over Bonneville's other power management duties, such as operation of its transmission system. Section 4(e)(2) of the Act specifically limits the scope of the Council's plan powers to matters relating to Bonneville resource acquisitions, under Section 6 of the Act. Section 6 does not address Bonneville's management or operation of the federal transmission system.

In short, Congress did not permit the plan to address Bonneville's management of the federal transmission system under the Regional Act, nor did it require such matters as Bonneville's intertie access policy to be consistent with the Council's plan.

This reading of the Regional Act comports with well-settled principles of statutory construction and the purposes of the Act. First, even if there were no Congressional limitation on the elements of the plan, expression of certain powers in a statute implies exclusion of other powers. Marshall v. Gibson's Products, Inc. of Plano, 584 F.2d 668 (5th Cir. 1978). Statutes may not be construed in such a way as to render certain provisions superfluous or insignificant. Woodfork v. Marine Cooks and Stewards Union, 642 F.2d 966 (5th Cir. 1981). If the Council could address intertie access policies in the plan, Congress's limitation on the elements to be included in the plan would be given no effect.

Finally the subject matter of the Regional Act — acquisition and sale of and rates for Bonneville power — is a matter concerning federal property. The intertie access policy is a matter involving the management and use of federal property. Congress has essentially plenary authority with respect to federal property matters, including the power to provide for lease of such property. U.S. v. Gratiot, 39 U.S. 526, 10 L. Ed. 573 (1840); Ashwander v. Tennessee Valley Authority, 297 U.S. 288, 80 L. Ed. 688, 56 S. Ct. 466, reh. denied 297 U.S. 728, 80 L. Ed. 1011, 56 S. Ct. 588 (1936). Where Congress does not provide for sharing

of authority for management of federal property with states, states may not assert such an interest. See, e.g., Kleppe v. New Mexico, 426 U.S. 529, 539, 49 L. Ed. 2d 34, 96 S. Ct. 2285 (1976); see also Russell J. Davis, SUPREME COURT'S CONSTRUCTION AND APPLICATION OF PROPERTY CLAUSE (ART IV, § 3, CL.2) OF FEDERAL CONSTITUTION, CONFERRING UPON CONGRESS POWER TO DISPOSE OF, AND MAKE RULES AND REGULATIONS AS TO, PROPERTY BELONGING TO UNITED STATES, 49 L. Ed. 1239 (1976).

B. The Council's Fish and Wildlife Program Is Not Applicable to Bonneville's Management of the Federal Transmission System.

Section 4(h) establishes a mechanism for the Council's adoption of a fish and wildlife program to protect, mitigate, and enhance fish and wildlife on the Columbia River and its tributaries. A non-applicability clause makes clear that section 4(h) applies only to the Columbia River and its tributaries. Section 4(h)(1)(B) provides:

> This subsection shall be applicable solely to fish and wildlife, including relating spawning grounds and habitat, located on the Columbia River and its tributaries. Nothing in this subsection shall alter, modify, or affect in any way the laws applicable to rivers or river systems, including electric power facilities related thereto, other than the Columbia River and its tributaries, or affect the rights and obligations of any agency, entity, or person under such laws.

The ensuing provisions, paragraphs 4(h)(2) through 4(h)(9) detail steps to be taken by the Council in (a) obtaining recommendations for program measures to be included in the program, (b) providing for public participation and comment, and (c) applying statutory criteria to the recommended measures for

inclusion in the fish and wildlife program.[6/] The next two paragraphs, 4(h)(10) and 4(h)(11), describe the manner in which the program is applicable to Bonneville: the former addresses funding and expenditure requirements; the latter addresses hydroelectric facilities of the Columbia River system; neither provision addresses transmission or the intertie.

1. Subparagraph 4(h)(10)(A) Is Intended To Address Bonneville Funding Authorities -- Not All Bonneville Authorities Under Federal Law.

Paragraph 4(h)(10) sets forth the mechanism for paying for measures adopted as part of the fish and wildlife program under the foregoing paragraphs, as follows:

> (A) The Administrator shall use the Bonneville Power Administration fund and the authorities available to the Administrator under this Act and other laws administered by the Administrator to protect, mitigate, and enhance fish and wildlife to the extent affected by the development and operation of any hydroelectric project of the Columbia River and its tributaries in a manner consistent with the plan, if in existence, the program adopted by the Council under this subsection, and the purposes of this Act. Expenditures of the Administrator pursuant to this paragraph shall be in addition to, not in lieu of, other expenditures authorized or required from other entities under other agreements or provisions of law.
>
> (B) The Administrator may make expenditures from such fund which shall be included in the annual or supplementary budgets submitted to the Congress pursuant to the Federal Columbia River Transmission System Act. Any amounts included in such budget for the construction of capital facilities with an estimated life of greater than 15 years and an estimated cost of at least $1,000,000 shall be funded in the same manner and in accordance with the same procedures as major transmission facilities under the Federal Columbia River Transmission System Act.
>
> (C) The amounts expended by the Administrator for each activity pursuant to this subsection shall be allocated as appropriate by the Administrator, in consultation with the Corps of Engineers and the Water and Power Resources Service, among the various hydroelectric projects of the Federal Columbia River Power System. Amounts so allocated shall be allocated to the various project purposes in accordance with existing accounting procedures for the Federal Columbia River Power System.

16 U.S.C. § 839b(h)(10).

Clearly apparent from a review of paragraph 4(h)(10) is that all three of its subparagraphs relate to funding fish and wildlife program measures. The language in 4(h)(10)(A) indicating that the Administrator shall use "authorities available to the Administrator" and "other laws administered by the Administrator," makes no explicit reference to what these other authorities or laws might be. However, the second sentence in 4(h)(10)(A) makes clear that the authorities or laws described in general terms are funding authorities. The second sentence provides that "[e]xpenditures" of the Administrator shall be in addition to other expenditures by other agencies, and clearly relates back to the authorities and laws described in the first sentence. Paragraph 4(h)(10), taken as a whole, relates exclusively to program funding, budgeting for capital facilities, allocation of funds, and the relevant accounting principles.

6/ Section 4(h)(8)(B) makes clear that consumers of electric power shall pay only for the cost of program measures which deal with adverse impacts caused by the development and operation of electric power facilities and programs. As ratepayer obligations under section 4(h) are limited to electric power impacts, any Bonneville expenditures for fish and wildlife under section 4(h) for which the ratepayer is obligated to pay are limited to measures to compensate for electric power impacts.

If there was any doubt or ambiguity as to what Congress intended to address in paragraph (10), that doubt is dispelled by the explanation of the provision in the Interior Committee Report, which was there numbered as paragraph 4(h)(2).

> Section 4(h)(2)(A): This subparagraph requires BPA to use its funding authorities (i.e., borrowing and, potentially, appropriations) to protect, mitigate and enhance fish and wildlife to the extent such resources are affected by the hydroelectric projects of the Columbia River and its tributaries. (Section 8(b) provides BPA's authority to pay the costs of all acquired resources regardless of location, including fish and wildlife protection costs.) In doing so, BPA shall act consistently with the regional plan, the program developed under this subsection, the purposes of this Act and other provisions of law. BPA expenditures shall be in addition to, not in lieu of, other expenditures authorized or required to be made by other entities under other agreements or provisions of law. Other fisheries efforts outside this Act, for example, are expected to continue and to be funded separately.
>
> Section 4(h)(2)(B): This subparagraph requires BPA to include proposed expenditures under this subsection in its budget submittals to Congress, and, in the case of major expenditures, to obtain approval in the same manner as is currently required for major transmission system additions.
>
> Section 4(h)(2)(C): The allocation of particular costs to individual projects and among different project purposes, as is required by existing law, is preserved in this subparagraph to avoid establishing any precedent of a different allocation result. Thus, power, irrigation, navigation, recreation and other project purposes will continue to bear only their established shares of the total costs attributable to protection and mitigation measures. All expenditures by BPA are to be made on a reimbursable basis vis-a-vis other project purposes, although BPA will have the flexibility to treat expenditures in excess of its allocated share as being payments for other project costs for which BPA is responsible under existing law.

Interior Committee Report, 45 (emphasis added).

To contend that there is authority in subparagraph 4(h)(10)(A) of this integrated funding provision which sweeps open the door for the Council's program to address Bonneville's transmission policy, rates, power sales contracts or any other "authority" under any law applicable to Bonneville would turn inside out the delimited scheme of federal-state authorities intended by Congress in the Regional Act. Such an interpretation would also render meaningless the "local control" provisions of the Act (see, Sec. III.B.4., supra) and promote an absurd result.

It is hornbook law that, in construing a statute, courts will avoid literal interpretations when necessary to give effect to the obvious intent of the legislature and avoid absurd consequences. U.S. v. Kirby, 74 U.S. (7 Wall.) 482, 486-87, 19 L. Ed. 278 (1868); Government of Virgin Islands v. Berry, 604 F.2d 22 (3rd Cir. 1979); General Services Employees Union Local No. 73 v. N.L.R.B., 578 F.2d 361, 366 (D.C. Cir. 1978). Courts may adopt a restricted rather than a literal or usual meaning of a word where doing otherwise would lead to absurd or unintended results. In re Trans Alaska Pipeline Rate Cases, 436 U.S. 631, 56 L. Ed. 2d 591 98 S. Ct. 2053 (1978). The meaning of a word may properly be defined with reference to the terms with which it is associated. General Electric Co. v. Occupational Health and Safety Commission, 583 F.2d 61 (2d Cir. 1978); Jarecki v. G.D. Searle & Co., 367 U.S. 303, 61 L. Ed. 2d 859, 81 S. Ct. 1579 (1961). In this case, it is clear that the reference in

paragraph 4(h)(10)(A) to "authorities available to the Administrator" and "other laws administered by the Administrator" means "authorities" and "other laws" relates to funding activities of the § 4(h) program, which is the subject of paragraph 4(h)(10).

If the terms in question are read more broadly, they would logically require Bonneville's rate-setting, contracting, transmission and other power management activities to be subject to the Council's fish and wildlife program. Absent a clear expression by Congress to subject these federal property matters to the control of the interstate Council — which is lacking here — the Council may not act.

2. Paragraph 4(h)(11) May Not Be Applied To Bonneville's Transmission Policies.

While section 4(h)(10) refers exclusively to funding, section 4(h)(11) establishes the standards which are to guide the Administrator and other federal agencies in the exercise of their substantive responsibilities relating to management, operation and regulation of hydroelectric facilities on the Columbia River system. Bonneville's responsibilities in these areas manifestly do not relate to its management of the federal transmission system in the region.

However, the very existence of paragraph 4(h)(11) and its contiguity to paragraph 4(10) makes clear that it would be nonsensical to interpret paragraph (10) to address all authorities of Bonneville: if paragraph (10) required Bonneville to use

all its authorities consistent with the fish and wildlife program, the provisions of paragraph (11) — which require only that Bonneville exercise its responsibilities "taking into account" the program — are both meaningless and conflicting. Courts are required to construe statutes so as to give meaning to all their provisions. Federal Aviation Administration v. Robertson, 422 U.S. 255, 261, 45 L. Ed. 2d 164, 95 S. Ct. 2140 (1975); Jarecki v. G.D. Searle & Co., supra. Here, paragraph 4(h)(11) only has meaning if paragraph (10) is recognized as being limited to spending authorities.

V.

BONNEVILLE HAS LIMITED DISCRETION WITH RESPECT TO GRANTING ACCESS TO THE FEDERAL TRANSMISSION SYSTEM

As seen above, there is no authority for either the plan or fish and wildlife program to address Bonneville's intertie policy.

The plan is limited by the Act to the elements in paragraph 4(e)(3).

The program imposes on Bonneville:

(1) certain funding obligations, under paragraph 4(h)(10) and

(2) obligations relating to its management, operating and regulatory responsibilities relating to hydroelectric facilities on the Columbia River and its tributaries, under paragraph 4(h)(11).

Neither of these paragraphs — nor indeed any section of the Act — imposes on Bonneville the duty to manage its transmission system in a manner consistent with the fish and wildlife program.

No provision of the Act grants the Council authority to compel Bonneville's action under the program. The absence of a Council control or enforcement provision like the one provided at Section 6(c) with respect to Bonneville's major resource proposals underscores the lack of Council authority in this area.

It is noteworthy that, aside from its § 6(c) consistency review, the only other "forcing" action the Council may take under the Act also relates to Bonneville's exercise of its acquisition authority under Section 6. Under subsection 4(j) of the Act, the Council may request Bonneville to take an action under Section 6 to which Bonneville must reply in writing, giving its reasons for taking or not taking the action. 16 U.S.C. § 839b(j). The Council has no such authority, or any other supervisory consistency review, with respect to the Bonneville transmission system.

Does this mean that Bonneville is free to take whatever action it pleases in adopting an intertie access policy? No.

First, Bonneville must consider the strong Congressional directives to transmit, found at 16 U.S.C. §§ 837e, 838d, and 839f(d) and (i).

Under Section 9(i) of the Regional Act, Bonneville could refuse to provide transmission service if doing so would in its judgment conflict with the "policies" of the Act, which are not defined in the Act itself. Where words are not defined, they will be given the meaning which would best carry out the purpose and interest of Congress. NAACP v. Federal Power Commission, 425

U.S. 662, 69, 48 L. Ed. 2d 284, 96 S. Ct. 1806 (1976). Here it makes most sense to construe the "policies" of the Act as the "purposes" of the Act. The Regional Act's expressed purposes include:

> (1) participation of Northwest states and the public in a regional planning process;
>
> (2) protection, mitigation and enhancement of fish and wildlife;
>
> (3) assurance of an adequate, efficient, reliable and economical power supply; and
>
> (4) maintenance of the authorities of local governments and utility systems with respect to the planning, distribution and use of electric energy in accordance with other applicable provisions of law;

16 U.S.C. § 839.

Because the purposes of the Act are balanced and varied, Bonneville would have some discretion in deciding whether it could provide service under Section 9(i).

However it would appear that, to be denied service under the "policies" language of § 9(i), a resource or utility would have to be flagrantly derelict with respect to one of the purposes of the Act, such that, for example, the "maintenance of local authorities" purpose expressed at 16 U.S.C. § 839(5) is clearly overcome by another purpose. This is particularly true in view of the strongly expressed Congressional policy expressed in the Regional Act, the Regional Preference Act and the Transmission Act, (see Sec. III.A., supra) directing Bonneville transmission service to be furnished its customers, particularly over the intertie.

Moreover, the policy of Section 9(i), in the words of the House Interior Committee

> essentially ratifies BPA's existing policies on services. . . .

Interior Committee Report, 56. None of those existing policies contemplated any sort of consistency review for transmission service.

Before Bonneville could repudiate its existing transmission mandate and refuse intertie service, the requested service would have to be clearly offensive to the purposes of the Act taken as a whole.

VI.

CONCLUSIONS

Following are the conclusions reached in our analysis of the above questions. Most are grounded in statute. Indeed, the most concise statement of relevant obligations and authorities of Bonneville and the Council is provided by summarizing provisions of the United States Code applicable to them.

A. Relevant Authorities of Bonneville.

1. Bonneville is required to make available to all utilities on a nondiscriminatory basis any excess capacity in its transmission system, including its rights in the intertie, after marketing of federal power is taken into account. 16 U.S.C. § 838d.

2. Bonneville is required to provide transmission and other power supply services to its utility customers which desire to

market power outside the Pacific Northwest, and may not discriminate against such customers on the basis that they have independently developed such resources. 16 U.S.C. § 839f(d).

3. Bonneville is required to assist its customers in disposing of their surplus power, within or outside the region, at rates specified by the customers, if such disposition is not in conflict with Bonneville's marketing obligations and policies of the Regional Act, and to provide transmission and other services to such customers in the marketing of such surplus to the extent doing so would not substantially interfere with Bonneville's power marketing program, operating limitations, or existing contracts. 16 U.S.C. § 839f(i).

4. Bonneville is required to acquire sufficient resources to meet its customers' needs, on a basis consistent with the Council's plan, except to the extent § 839d of Title 16 provides otherwise. 16 U.S.C. §§ 839d (a)-(c).

5. Bonneville is required to use the fund established under P.L. 93-454 and its like authorities to protect, mitigate and enhance fish and wildlife, to the extent they are affected by hydroelectric projects on the Columbia River and its tributaries, in a manner consistent with the plan, program and purposes of the Regional Act. 16 U.S.C. § 839b(h)(10).

6. Bonneville and other federal agencies are required to exercise their responsibilities relating to management, operation or regulation of hydroelectric facilities on the Columbia River and its tributaries taking into account the Council's fish and

wildlife program to the fullest extent practicable. 16 U.S.C. § 839b(11)(A)(ii).

7. Bonneville has only limited discretion to prescribe terms for contracts with its customers to provide transmission and related services pursuant to 16 U.S.C. §§ 838d, 839f(d), and 839f(i), and no discretion to require "consistency" of such resources with the fish and wildlife program in view of the strong Congressional policy favoring provision of such service.

B. Relevant Authorities of the Council.

1. The Council is required to adopt a fish and wildlife program applicable solely to hydroelectric facilities located on the Columbia River and its tributaries. 16 U.S.C. § 839b(h)(1), (2).

2. The Council is required to adopt a plan as provided at 16 U.S.C. § 839b(d),(e). That plan does not provide for inclusion of an intertie access policy or matters relating to Bonneville's management of the Federal Columbia River Transmission System, under the legislative history of the Regional Act, other laws applicable to Bonneville, and relevant case law.

3. The Council has no authority to seek or assure consistency of Bonneville's management of the federal transmission system with the plan or program, in the manner provided the Council pursuant to Secs. 4(j) or 6(c) of the Regional Power Act.

ROM X3.1FF

PNUCC
PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

March 16, 1984

Attachment
TIE-1-85

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
1002 N.E. Holladay Street
PO Box 3621
Portland, OR 97208

Subject: Intertie Access Policy

Dear Ms. Geiger:

The enclosed comments of Pacific Northwest Utilities Conference Committee are responsive principally to questions 1 and 7 of the BPA discussion paper, relating respectively to the appropriate scope of the intertie access policy, and whether conditions should be applied to nonfederal entities' use of the intertie.

Our comments were prompted in large part by positions adopted and under consideration by the Northwest Power Planning Council, asserting that BPA must exercise all its statutory authorities--in this case, those relating to use of the intertie--to carry out the provisions of the Council's plan and fish and wildlife program. Our comments address intertie access in the context of the Council's staff issue paper of February 23, 1984. In addition to the attached legal analysis, they also include our letter to the Council of March 13, 1984.

Our position is that BPA has the obligation to carry out its duties and decisions with respect to the plan and program in the manner set forth by Congress in the Act, and the the language and legislative history of the Act do not permit the interpretation urged by the Council.

Thank you for your consideration.

Sincerely

Randall W. Hardy
Executive Director

RWH:gh:119V

Attachment

PNUCC · 520 SW SIXTH AVENUE, SUITE 505 · PORTLAND, OR 97204 · (503) 223-9343

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

August 13, 1984

Attach
TIE-185

Peter T. Johnson, Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

Dear Mr. Johnson:

We are pleased to submit this response to your July 13, 1984 letter and transmittal of BPA's near term intertie access policy.

Please consider this letter as supplementing our earlier memorandum of March 16, 1984, which addressed BPA's authorities with respect to the intertie. For your convenience, our previous memorandum is enclosed as Attachment 1.

For reasons indicated below, we believe that BPA is not authorized to undertake the type of regulatory actions set forth in Section 6 of the proposed policy. Rather than the approach set forth in Section 6, we believe the authorized and appropriate action, in the event BPA should have concern about fish and wildlife impacts caused by operation of a nonFederal hydroelectric project, would be for BPA to seek modification of that project's license under Federal law. The change in license provisions could be ordered by the Federal Energy Regulatory Commission (FERC), the agency statutorily charged with regulation of such projects under the Federal Power Act and having responsibilities comparable to BPA's under Section 4(h)(11) of the Northwest Power Act.

In the event BPA should determine that it is authorized to adopt provisions such as those in Section 6 of its near term intertie access policy, and that their adoption is appropriate, we suggest below certain modifications in the policy as proposed. We have enclosed as Attachment 2 a marked-up copy of the relevant pages of the proposed policy showing our suggested changes. Our detailed comments on the proposed policy follow.

I. Neither the Northwest Power Act or Any Other Law Authorizes BPA To Regulate Construction Or Operation Of NonFederal Hydroelectric Projects As An Element Of Its Intertie Access Policy

If BPA has authority to regulate intertie access based on fish and wildlife aspects of a resource, that authority must be found in statute.

The Regional Preference Act, P.L. 88-552, and the Federal Columbia River Transmission System Act, P.L. 94-454, both contain strong directions for BPA to transmit power for its customers. (See, e.g., 16 U.S.C. §§ 837e, 838d.) The Northwest Power Act confirms and restates those obligations. Congress' intent in so doing could not be expresssed more clearly. See H.R. Rep. No. 96-976, Part II, 96th Cong., 2d Sess. 55-56 (1980) ("Interior Committee Report").

Neither P.L. 88-552 nor P.L. 94-454 requires or authorizes BPA to address fish and wildlife related aspects of providing transmission service. Four provisions of the Northwest Act might be seen, at first glance, as supporting BPA's proposed intertie access policy provisions relating to fish and wildlife. On closer examination, however, none of these provisions actually support such an action.

A. Neither Paragraph 4(h)(10) Nor Paragraph 4(h)(11) Applies To BPA's Transmission System Management.

The Northwest Power Planning Council has seen paragraph 4(h)(10) as requiring the Administrator to use all his authorities to achieve conformance with its fish and wildlife program. However, as set out more fully in our March 16, 1984 comments on this matter, appended hereto as Attachment 1, and at Section VI below, the Council misreads paragraph 4(h)(10). If it means what the Council has asserted, the provisions would require the Administrator to use any or all his authorities--transmission and other services, rates, contracts--to achieve consistency with the Council's program. But if Congress intended the Administrator to have so little discretion, and the Council so much, it would not have written paragraph 4(h)(11), which plainly preserves BPA discretion as to all its water management and operational responsibilities. And it would not have characterized the provision as simply addressing BPA's "funding authorities." Interior Committee Report at 45.

The Council's reading of paragraph 4(h)(10) is flatly contradicted by the provisions of paragraph 4(h)(11), and the Council has not given a sensible reconciliation of the two which would justify its paragraph 4(h)(10) argument.

Paragraph 4(h)(11) itself does not provide authority for BPA's proposed policy because: (1) it applies to hydroelectric facilities, not transmission facilities; and, (2) it does not confer new authorities, but instructs Federal agencies to carry out their existing authorities with reference to the criteria of that provision. If BPA did not theretofore have authority to regulate nonFederal hydro, paragraph (11) does not convey such authority. Congress did not intend by paragraph 4(h)(11) to change the existing responsibilities of Federal water management agencies. Interior Committee Report at 37.

B. Sections 9(d) and 9(i) Direct BPA To Provide Transmission Service, and Do Not Permit Imposition of Fish and Wildlife Provisions Into the Proposed Policy.

Section 9(d) does not provide authority for fish and wildlife aspects of the proposed policy. Section 9(d) requires BPA to provide transmission service (in addition to the directives under paragraph 9(i)) to utilities, subject only to BPA's contractual obligations, other obligations under existing law, and availability of capacity in the Federal transmission system. No obligation under existing law can support Section 6 of the proposed policy.

The Committee which authored this provision expressed its intent as to its meaning in this way.

> Section 9(d) serves two purposes. First, it clarifies that utilities (unlike BPA) are free to dispose of their own nonFederal power (both firm and non-firm) so long as they do not thereby increase BPA's firm power obligations. Second, the subsection requires BPA to provide available services and facilities to such utilities for such sales and prohibits BPA from discriminating in the provision of such services against any utility or group thereof on the basis of their independent development of resources. Both parts of this subsection therefore preserve the individual and collective independence of utilities and groups of utilities, as well as reaffirming the requirement contained in Section 6 of the Federal Columbia River Transmission System Act that BPA make available on a fair and non-discriminatory basis Federal transmission system capacity in excess of the capacity required for power generated or acquired by the United States.

Interior Committee Report at 55 (emphasis added).

Likewise, Section 9(i) does not provide BPA with authority to implement the proposed policy.

Paragraph 9(i)(1)(B) speaks not to transmission service (which is addressed at paragraph 9(i)(3)), but rather to marketing assistance. Paragraph (1)(B) is the statutory basis of BPA's current surplus marketing efforts. Even if paragraph (1)(B) applied to transmission, its injunction that BPA's action not conflict with BPA's other marketing obligations "and the purposes of this Act and other applicable laws" would not support the proposed policy, because the general language and balanced purposes referenced in this provision could not overcome the strong, explicit policy directives for BPA to provide such service under P.L. 88-552 and P.L. 94-454.

Paragraph 9(i)(3) does require BPA to furnish transmission and other services to customers, unless doing so would "substantially interfere" with its marketing programs, operating limitations, or contractual obligations. This provision does not provide authority for the proposed policy, but contravenes it.

Congress said about Section 9(i)

> Section 9(i) sets forth additional services BPA is to provide its customers, at their request and expense, with respect to power sales and purchases of their own. This subjection essentially ratifies BPA's existing policies on services. . . .

> Id. at 56.
>
> It is noteworthy that § 9(d) and § 9(i), which do set forth certain limitations on BPA's duty to provide transmission service to its customers, do not include compliance with the Council's fish and wildlife program or compatibility with BPA's fish and wildlife measures as one of those limitations.
>
> Congress described the provisions of Sec. 9 which are at issue as "reaffirming" the requirements of the Transmission Act, and as ratifying BPA's existing service policies. They cannot--individually, collectively, or inferentially--provide authority for BPA to launch a regulatory process for nonFederal hydro related to intertie access, which process could substantially conflict with the one Congress directed be carried out by FERC under the Federal Power Act.

II. FERC, Not BPA, Is Charged With Regulating NonFederal Hydroelectric Facilities, and BPA Should Seek Any Relief It Believes Appropriate From FERC

Section 4(h)(11) of the Northwest Power Act is clearly applicable to FERC. Under paragraph (11) FERC must exercise its responsibilities with respect to projects licensed or exempted under the Federal Power Act, as amended, in a manner that protects, mitigates and enhances fish and wildlife, consistent with the purposes of applicable laws and the purposes of the regulated facilities, and in a way that takes the Council's program fully into account.

FERC is required to address fish and wildlife impacts of projects under the Federal Power Act, Fish and Wildlife Coordination Act, Northwest Power Act and NEPA. A project licensing action or license amendment could be contested under those laws before FERC, then appealed to the U.S. Court of Appeals, finally to the Supreme Court. Under the proposed intertie policy, however, the illogical result is that even after the Supreme Court had resolved the license issues, parties could continue to seek imposition of different operating conditions by BPA if the project required intertie service. Such an alternative enforcement regime for nonFederal hydro was never contemplated or authorized by Congress.

Section 6 of BPA's proposed intertie policy also could lead, by extension, to BPA's imposition of different and inconsistent standards on FERC-licensed projects as a condition of granting them any transmission service, not just service over the intertie.[1/] Congress intended no such result.

[1/] If authority exists for BPA to undertake the regime of Section 6 with respect to the intertie, that authority may logically extend to all transmission service--not just service over the intertie. No authority BPA may rely on to justify its entry into hydroproject regulation makes any distinction between intertie service and ordinary transmission service. Yet, because scarcely any project could feasibly operate without BPA transmission service, BPA's tentative construction of its authority would give it the power to render meaningless a FERC license. If BPA can refuse to transmit power from a licensed project, BPA--not FERC--would be the ultimate arbiter of nonFederal project operating requirements.

On the contrary, the very strong Congressional directives to BPA to transmit power for Northwest utilities (see Section I, supra), coupled with the lack of authorization for BPA to regulate fish and wildlife measures at nonFederal projects and the strong requirement for FERC to do so,[2/] require another approach.

Under its standard license articles, FERC has authority to require modified operation of licensed projects, on its own motion, or on request of other parties, when it is in the public interest to do so. Virtually every project license issued or reissued since the mid-1950s has such provisions; all the mid-Columbia project licenses do. Given the lack of BPA authority to regulate nonFederal hydroprojects, the appropriate (and arguably superior) alternative is for BPA to petition FERC to order modified project operation for any nonFederal Columbia River System hydroproject it believes is substantially harming its own fish and wildlife protection efforts. BPA could undertake such action whether or not power from such a project is sought to be marketed over the intertie. Because such action could address all Columbia River System projects--not just those for which intertie access is sought--this approach would seem to offer more real help for fish and wildlife than the proposal in Section 6 ever could.

III. Even if BPA Had Authority To Condition Intertie Access on Fish and Wildlife Measures, It Could Only Address Incremental Effects of Project Operation Attributable To The Intertie

Manifestly, Congress did not intend to impose conflicting regulatory regimes on nonFederal hydroproject operators. Under paragraph (11)(A)(i), it required FERC in discharging its functions to take account of the purposes of the Northwest Power Act as well as the Federal Power Act, and the purposes of the facilities themselves. Because Congress clearly intended that FERC have plenary authority with respect to regulation of nonFederal hydroprojects, BPA may not, through the indirect vehicle of the intertie, assert regulatory responsibilities with respect to such projects' operation without clear statutory authority. Since no such authority can be found under Federal law, any inquiry by BPA must be limited to examining the extent to which intertie access would permit a project to operate in excess of, or in a manner different from, that permitted in the FERC license.

To the extent project operation would be unaffected by the proposed use of the intertie and within the license, BPA may not require action by the project operator--except with FERC's agreement. (This limitation provides another argument for BPA to seek modification of the FERC license of any project which adversely impacts BPA's fish and wildlife measures--not merely to pursue the indirect relief it believes may be available through the intertie.)

[2/] Courts have recently instructed FERC On its fish and wildlife obligations in hydroproject licensing. Confederated Tribes and Bands of the Yakima Indian Nation v. FERC, Nos. 82-7561, 82-7562, 83-7038, slip opinion, June 7, 1984. Fish and wildlife considerations have long been a part of FERC licensing considerations under § 10(a) of the Federal Power Act. Udall v. Federal Power Commission, 387 U.S. 1712, 18 L. Ed. 2d 869, 87 S. Ct. 1712 (1967).

IV. The Effects of NonFederal Projects Which BPA Seeks to Guard Against Must Be "Substantial" Before Intertie Access Is Refused

The proposed policy recognizes that impacts on BPA fish and wildlife measures caused by operation of nonFederal projects must be substantial before BPA's asserted right to refuse intertie access is triggered. This approach is proper, considering that virtually any hydroproject operation could be seen to adversely affect fish and wildlife protection measures taken at another project on the same river system. (There can be little doubt that the existence and operation of Federal projects may adversely impact fish and wildlife protection measures undertaken at nonFederal projects, for example.)

However, the proposed policy should be changed to conform the preliminary discussion at pages 12-14 with the implementing language at pages 20-22.

Also, the proposed definition of "substantially" at page 22 should be changed to incorporate standards which are more readily understood and applied, so that all parties may be informed of what behavior those operating nonFederal hydroprojects will be held to. We agree that a "substantial" change must be one that is "measurable," but we believe that the choice of the word "significant" is an unfortunate one which will blur and broaden, rather than illuminate and sharpen, the term being defined.

"Significant" is a word which has been used, and abused, in the field of environmental law, having been construed by various courts in so many ways as to rob it of all meaning. It has been called "chameleon-like." See, e.g., Hanly v. Kleindiest (Hanly I), 471 F.2d 823 (1973) (Friendly, J. dissenting) ("It covers a spectrum ranging from 'not trivial' through 'appreciable' to 'important' and even 'momentous.' ") There is no clarity or precision left in the word. The result of its use here is equivalent to handling a kaleidoscope to a man with a mild case of myopia.

If "substantially" needs defining at all, we believe it should be defined to include these three concepts: (1) a measurable effect; (2) of qualitative significance; and, (3) of sufficient magnitude to precipitate the need for remedial measures. Accordingly, we suggest "substantially" be defined in § 6 to mean a change which is serious, considerable, and measurable.

"Serious" has been used before as a synonym for "substantial." See 30 U.S.C. § 1291(8). Adding the word "considerable" as a synonym for "substantial," see American Heritage Dictionary 1234, keeps the idea of quantity and ampleness that is integral to the meaning of "substantial." "Identifiable" can be deleted because it is encompassed within the meaning of "measurable."

V. If There Is To Be An Administrative Process In Section 6, It Should Be Defined to Afford At Least Minimum Due Process

The provisions of paragraphs 6.b and 6.c of the policy imply but do not set forth an administrative procedure for BPA review of fish and wildlife aspects of resources seeking intertie access. Assuming that an "interested person" may wish to

challenge access, it will be necessary for such persons and resource operators to know in advance in what manner and with what evidence it may be demonstrated that a nonFederal project may have the referenced effects on fish and wildlife set forth.

Likewise, if the Administrator determines that the burden of demonstrating such effects has been discharged, he must determine, presumably on the basis of some record and after some sort of hearing, whether providing access will or will not have the effects set forth and, if he determines that it will, then he must prescribe appropriate remedial measures. Yet the proposed policy sets forth no requirement for a hearing or record to support the Administrator's decision.

We suggest in our attached revision of Section 6 that the initial paragraph 6.b demonstration and later paragraph 6.c determination be made as part of an informal adjudicatory proceeding under 5 U.S.C. § 558(c), and that the Administrator's decision be written, based on the record, and subject to review on an "arbitrary and capricious" standard. Characterizing the granting of intertie access as equivalent to the grant of a license, we believe an information adjudicatory process is appropriate here. See City of West Chicago v. Nuclear Regulatory Commission, 701 F.2d 632, 644 (7th Cir. 1983).

VI. The Council's View of the Administrator's Authorities and Obligations Are In Error

It is not certain what provisions of law the Council believes authorize or obligate BPA to refuse to provide transmission service to resources which are inconsistent with the program--whether § 4(h), or § 9(d), or § 9(i), or some combination of these. The Council has appeared to put most of its eggs in the paragraph 4(h)(10)(A) basket, asserting that "authorities available to the Administrator" under that provision means all authorities--not just financial authorities.

The Council does not explain how its view of the Administrator being directed to use all his authorities in the manner prescribed by the Council squares with paragraph 4(h)(11) and the different standards and considerable discretion it confers on the Administrator. If paragraph 4(h)(10)(A) means what the Council says it means, then paragraph 4(h)(11) has no meaning as applied to Bonneville.

Of course, a court would not likely construe paragraph (10)(A) as the Council does because:

(1) Courts are required to construe words or provisions in a statute taking the statute as a whole into account and not in a way that renders another provision meaningless (see PNUCC brief, Attachment 1, at 26).

(2) Even if paragraph (10)(A) applied to all the Administrator's authorities (which it does not), the Administrator would retain discretion under that provision to consider not only the plan and program, but also the purposes of the Act. If a measure that is consistent with the program would be, in his judgment, inconsistent with the purposes of the Act, paragraph (10)(A) does not require him to carry it out.

The Council's position appears to spring from a desire to deal with BPA rather than FERC with respect to nonFederal hydroelectric resources. The Council's position is understandable; it can likely get BPA's attention more easily than FERC's; but that does not undo the fact that it is FERC that Congress chose to regulate nonFederal hydroelectric projects, not BPA, and that BPA's discretion to refuse transmission service is very narrow indeed, when all applicable provisions of law are considered.

The Council will thus have to deal with FERC if it wishes to affect the operation of nonFederal resources in the Columbia River System. As an interstate compact body, the Council's powers are defined and constrained by the provisions of its authorizing statute. It cannot choose which Federal agency it wishes to see carry out the elements of its program and it cannot constitutionally impose those elements on Federal agencies.

Sincerely,

Randall W. Hardy
Executive Director

RM:lp:104C

Attachments

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

March 14, 1985

Attachment
TIE-1-85

Donna Lou Geiger, Public Involvement Manager
Bonneville Power Administration
1002 N.E. Holladay
Portland, Oregon 97232

Dear Ms. Geiger:

Thank you for the opportunity to comment on the Revised Near Term Intertie Access Policy. While it was not feasible for us to poll all our member organizations on the issues presented in the revised policy, we believe these comments fairly represent their views and prior positions.

Please consider this letter as a supplement to both our earlier intertie policy comments dated March 16, 1984 and August 13, 1984. For your convenience, both are attached.

In general, our views of the proposed revised policy are not dissimilar from those we expressed in response to the initial near term policy. We are very pleased that the technical and economic aspects of the policy have provided an acceptable operating framework under which BPA and Northwest scheduling utilities share use of the intertie, and that they have realized enhanced opportunities to market surplus power and energy.

We also support the rights afforded extraregional utilities under the existing and proposed near term policies as being appropriate. These policies provide reasonable access to the intertie for Canadian utilities during periods of surplus intertie capacity. It is believed that the bulk of the benefit in the Northwest resulting from this policy results from the limitations on extraregional access. We agree with the several analyses done by second parties showing these benefits to be in the tens of millions of dollars. Any future concessions granting Canada access under Condition 2 of a policy would have to demonstrate cost effectiveness relative to reductions in these benefits. Furthermore, Northwest utilities and other BPA customers pay the bulk of all costs associated with ownership and operation of the Federal Columbia River Transmission System, and for that and other reasons, it seems appropriate that they should obtain the kind of access the law contemplates and the subject policy provides. However, we do have the following areas of concern.

A. The Fish and Wildlife Regulatory Regime is Unauthorized and Inappropriate.

We believe the fish and wildlife provisions of the proposed policy are inappropriate and unlawful for the reasons more fully set forth in our attached comments of record. We will summarize our comments in this area in response to Sections II.C.3 and II.C.7 of the proposed policy.

1. The fish and wildlife regulatory regime proposed by BPA is inappropriate because

   a. It is not authorized by the applicable statutes. The statutes contain specific provisions relating to BPA's provision of transmission service, but no language or suggestion that such service be conditioned as BPA proposes.

   b. It would conflict with regulation of nonfederal hydroelectric projects by the Federal Energy Regulatory Commission (FERC), which Congress intended to vest comprehensively in that agency. To the extent BPA's regulation did not conflict with FERC's, regulation by BPA would be redundant.

   c. Nothing in the Regional Act sanctions or otherwise indicates Congress' intent that intertie access be withheld on the basis of the condition set forth in the proposed policy, or that intertie access may be withheld on that basis for nonfederal, but not federal, projects.

2. The proposed fish and wildlife regulations are inappropriate because BPA has, under existing law, the opportunity to protect its fish and wildlife investments by participating in FERC proceedings and seeking license modifications or other Commissions' orders it may believe to be appropriate. As a rule, we do not encourage BPA participation in FERC hearings, but FERC is responsible for the fish and wildlife provisions of all licensed projects and there is every reason to believe it would entertain BPA or Council pleas for action, if the need arises, with respect to such projects, whether or not intertie access is an issue.

We would expect BPA not to refuse intertie access during the period it is seeking FERC relief, unless it reasonably believes there is the threat of irreversible damage to fish and wildlife resources which would result from granting access.

B. The Assured Delivery Provisions of the Policy are Unrealistic.

Our second area of concern deals with Section D of the proposed policy, Assured Delivery. A technical problem exists in limiting hourly deliveries to the annual averages shown in Exhibit B. If, for example, a Northwest utility was making a firm sale from a thermal plant or a shaped sale (perhaps including capacity provisions), it could never hope to achieve its annual average if limited to that average on an hourly basis. When the plant is down for maintenance, its output is zero; when in operation, the plant typically runs at full capacity. Averaging zero output with full capacity and then limiting hourly output to that average in Exhibit B is simply unworkable. In the case of the shaped sale, which is known to be attractive to California utilities, such hourly limits are also unworkable.

In closing, we congratulate BPA on the operating results achieved from the intertie policy now in place and sincerely hope BPA will reconsider the need for and validity of the fish and wildlife provisions of the proposed policy.

Sincerely,

Diana E. Snowden
Executive Director

TH:gh:154K

Attachments

4-26

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

attachment
TIE-1-85

April 24, 1985

Ed Sheets
Executive Director
Northwest Power Planning Council
850 S.W. Broadway #1100
Portland, Oregon 97205

RE: Intertie Access Policy Issue Paper

Dear Mr. Sheets:

This letter is submitted by the Pacific Northwest Utilities Conference Committee (PNUCC) in response to the opportunity to comment on the Council's proposed intertie access policy. We appreciate the additional time afforded to permit us to try to reach agreement on certain issues presented by the draft paper.

It should be noted at the outset that in undertaking the 1985 Plan, of which the draft policy is to be one part, the Council has set for itself the very difficult task of describing a plan it intends to be meaningful in an era of unprecedented uncertainty. Uncertainties inherent in the plan and any intertie policy are exacerbated by diversity of ownerships and authorities inherent in the Pacific Northwest power system. For example, we are mindful that while BPA's intertie policy--at which your draft policy is directed--applies to BPA's share of the intertie, the existing intertie and its planned expansion consist of non-federal, as well as federal, facilities and contractual rights. Having noted this, and recognizing that Congress did not include development of intertie (or, indeed, transmission system) policy among the portfolio of issues permitted to the Council, PNUCC nonetheless shares the Council's interest in assuring Northwest electric consumers an adequate and economic supply of electric energy.

In that spirit, PNUCC wishes to provide the Council with constructive comments on its proposed draft issue paper on intertie policy. In considering these comments, the Council should recognize that there are many and diverse views within the PNUCC membership about the details of the Council's draft and about the appropriate policies which should be followed by BPA itself in its development and administration of intertie policy. Accordingly, the following points indicate areas of general agreement among the PNUCC's membership; the views of individual PNUCC members will be provided to you separately.

1. The Present Policy Is Working Well: Don't Fix It.

   PNUCC members are generally satisfied with the results of the interim intertie policy now in effect. As indicated in BPA's comments accompanying its proposed near term intertie policy, firm and nonfirm sales of BPA and Northwest utilities have continued to be strong under the interim intertie policy, with beneficial effects on surplus sales revenues. Any decision affecting long-term intertie policy should give substantial consideration to retention of the allocation aspects of the present policy.

2. Any Policy Should Permit Firm Sales.

Because of their different power marketing circumstances, PNUCC's members have different views about whether firm power sales should have an intertie priority over nonfirm sales, and whether sales without a pullback provision should be treated on a par with nonfirm sales, or with firm sales with the suggested pullback, or in some other way. However, all agree that any intertie policy should permit firm power sales. The Council should understand that there is widespread disagreement over what priority should be accorded potential firm sales.

3. Any Policy Should Give BPA and Northwest Utility Sales Priority Over Extraregional Sales.

The interim intertie policy continues to provide access to the intertie by extraregional utilities under Condition 3, but not under Conditions 1 and 2 (conditions of intertie capacity shortage). PNUCC believes such a policy is appropriate in light of BPA's statutory mission under the Northwest Power Act and other applicable laws, its responsibilities to its firm power customers, and its own interests as a power marketing agency of the United States government.

Moreover, an allocation scheme similar to the one in the interim intertie policy has existed for nearly 20 years in the form of the Exportable Agreement. The essence of the Exportable Agreement marketing scheme was disclosed to Congress in 1964 during its consideration of the Regional Preference Act. Pub. L. No. 88-552. Neither Congress nor extraregional utilities objected to such an allocation.

Finally, we note that under the Northwest Power Act, BPA must manage its transmission system to "assure the Pacific Northwest an adequate, efficient, economical, and reliable power supply." 16 U.S.C. § 839. The interim intertie policy fulfills that obligation; a policy which was blind to the interests of Northwest power consumers and BPA's own customers would not.

4. The Policy Should Permit and Treat as Firm Northwest Exchange Sales.

Exchange with utilities in other regions by any entity in the Northwest utility community may take many forms, including various types of capacity/energy exchanges and seasonal capacity or seasonal firm energy exchanges. Exchanges are entered into on the basis of their providing net benefits to the contracting parties. Assuming that the Northwest component of any such exchange involves a firm sale, that sale should be entitled to intertie access on a basis similar to that of other comparable firm sales.

5. Utilities Should be Able to Use Capacity Available to Them Under Any Intertie Policy to Enter Into Transactions They Believe to be in Their Consumers' Best Interests.

The "purposes" section and the reservation-of-rights provisions of the Northwest Power Act clearly preserve for individual utilities the right to develop and

implement plans for use of their resources. 16 U.S.C. §§ 839 (5), 839g(a). Northwest sellers should be able to use their allocated or ownership shares to enter into sales or exchange agreements with other utilities which are unimpaired by contractual requirements imposed by the Council. The Council (and all utilities in the region) has an interest in planning adequate supply of energy in the region, and Sections 5(b)(1) and 9(c) and (d) of the Northwest Power Act, and Sections 2 and 3 of the Regional Preference Act all provide tools for bringing about this result.

We thank you for the opportunity to comment on the Council's proposed intertie access policy and look forward to working with the Council on the development of its 1985 Plan.

Sincerely,

Diana E. Snowden

Diana Snowden
Executive Director

DS:lp:542G3

cc: Council Members:
Morris Brusett
Charles T. Collins
Don Godard
Roy Hemmingway
Kai N. Lee
W. Larry Mills
Gerald Mueller
Robert Saxvik

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

April 4, 1986

Attachment
TIE-1-85

Donna Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Subject: Intertie Access Policy

Dear Ms. Geiger:

The Pacific Northwest Utilities Conference Committee submits this letter in response to your March 11, 1986 letter and discussion paper on "Major Issues in the Development of the Draft Long-Term Intertie Access Policy (IAP)." Our response is limited to the issues which relate to fish and wildlife. The comments that we make here are not new, but represent a summary and restatement of previous PNUCC comments over the past two years. Copies of our previous comments are attached for completeness of the record.

Should the Long-term IAP include provisions protecting fish and wildlife through conditioning of access to the intertie?

No, BPA lacks statutory authority to condition access to the intertie on consistency with fish and wildlife standards. Such an approach, as was taken in the near-term IAP, is also not appropriate for the long-term IAP for the same reasons:

1. Neither the Northwest Power Act nor any other law authorizes BPA to regulate intertie access based on fish and wildlife concerns. These statutes contain specific language relating to BPA's provision of transmission service, but no provision or suggestion that such service be conditioned on fish and wildlife.

2. Such conditioning would conflict with the regulation of non-federal hydroelectric projects which Congress vested comprehensively in the Federal Energy Regulatory Commission (FERC). To the extent that BPA regulation did not conflict, it would be redundant.

3. Overly broad interpretations of Sections 4(h)(10) and 4(h)(11) of the Northwest Power Act which have been used as arguments for requiring fish and wildlife conditions to access, would logically require BPA's ratemaking, contracting, transmission, and all other power management activities to be subject to the Council's Fish and Wildlife Program. This was clearly not intended by Congress.

4. Nothing in the Regional Act sanctions or otherwise indicates Congress' intent that intertie access be withheld on the basis of inconsistency with the Council's Fish and Wildlife Program, or that access may be withheld on that basis for non-federal, but not federal, projects.

The above arguments are developed in greater detail in all of the Attachments.

Several subsidiary issues are raised in item 6 of the discussion paper. These are discussed here in sequential order.

May IAP provisions prevent existing, non-federal hydro projects from operating in a manner adversely affecting fish and wildlife?

No, PNUCC believes that BPA lacks any authority to regulate the operation of non-federal hydro projects (see Attachment 3, Item I). FERC, not BPA, is authorized to regulate non-federal hydroelectric facilities. FERC is required to address fish and wildlife impacts under the Federal Power Act, Fish and Wildlife Coordination Act, NEPA, and the Northwest Power Act. Under section 4(h)(11) of the Northwest Power Act, FERC is required to take the Council's Program into account "to the fullest extent practicable." BPA, the Council, fish and wildlife agencies, and other affected parties have ample recourse for fish and wildlife impacts through established licensing and regulatory mechanisms (see Attachment 4, Item II). Arguments by fish and wildlife agencies that these existing mechanisms are costly, time-consuming, and ineffective and that an alternative means is necessary are not compelling. Congress has provided an effective means to protect fish and wildlife at non-federal projects. An alternative enforcement scheme such as that suggested by these parties was never authorized and would be contrary to the intent of Congress as reflected in the Federal Power Act and other governing statutes.

Should the IAP include special provisions governing intertie access for new hydro resources?

No, PNUCC's position is that new hydro resources, whether developed by a utility or by a third party and scheduled through a utility, should be treated like any other hydro resource relative to fish and wildlife considerations. Existing federal and state licensing and regulatory processes provide opportunities to address fish and wildlife concerns arising from the development of new resources. The IAP is not the appropriate mechanism for addressing potential impacts of new hydro resources.

Is the IAP a good way to protect BPA's fish investment?

No, the IAP is not an appropriate or effective means of protecting BPA's fish and wildlife investments. PNUCC agrees that it is a sound business practice for BPA to ensure that its investments on behalf of fish and wildlife are protected. However, the IAP is not an appropriate means because BPA has no statutory authority to regulate non-federal hydro project operations or to require mitigation at these projects. For this reason, the IAP is also not an effective means to protect BPA's investments. FERC is required to take the Council's Program into account "to the maximum extent practicable." Should BPA determine that any non-federal operation may adversely impact the effectiveness of its expenditures, BPA can petition FERC to order a modified project operation. Fish and wildlife agencies and any party may petition FERC if it believes BPA fish and wildlife expenditures or resources are in jeopardy (see Attachment 3, Item II).

Is the rebuttable presumption reasonable?

Yes, PNUCC believes this is a reasonable presumption. Congress and the states have provided laws and regulations by which they intend non-federal projects to operate. In

establishing any regulatory scheme the lawmaker assumes that most regulated parties will comply. However, in anticipation of exceptional cases, provisions are made for enforcement of regulations and for resolution of disputes. FERC regulations provide administrative procedures for determining whether a licensee is in compliance with the law and license conditions. Should BPA, or another party, believe that a project operator is not in compliance it may challenge the presumption of compliance before FERC. If the fish and wildlife agencies are not satisifed that current licensing procedures and regulatory mechanisms provide adequate protection, their remedy is to seek a change in the law or the regulations. Pursuing relief from perceived non-compliance with FERC regulations through BPA's IAP is inappropriate and contrary to the explicit and exclusive system for resolving disputes set forth in the statute and FERC regulations.

Conclusions

PNUCC believes that BPA lacks statutory authority to condition access to the intertie on fish and wildlife concerns. Congress has established regulatory mechanisms through which fish and wildlife resources are to be protected at non-federal hydro projects. If necessary, BPA may secure protection of its expenditures for fish and wildlife through these mechanisms.

Thank you for this opportunity to provide comments. We look forward to reviewing the forthcoming draft policy.

Sincerely,

Al Wright
Executive Director

TG:gh:100Y

Attachments

DOE F 1325.8
(12-84)

United States Government **Department of Energy**

memorandum

DATE: JAN 15 1987

REPLY TO ATTN OF: A6100

SUBJECT: Comments on the Proposed Long Term Intertie Access Policy
BPA File No.: TIE-1

TO: Public Involvement Manager, Bonneville Power Administration, ALP

The Western Area Power Administration (Western) submits the following comments in response to Bonneville Power Administration's (BPA) Federal Register notice (51 FR 39904) of November 3, 1986, on BPA's Proposed Long-Term Intertie Access Policy (LTIAP). In summary, Western recommends that BPA reconsider the need for the LTIAP in light of the mutual benefits and advantages of transactions in an open market. If the LTIAP is to be adopted in concept, Western has a number of specific comments on the policy as proposed. Western, as cooperating Agency, has no further comments on IDU-DEIS.

The Philosophy Underlying the Long Term Intertie Access Policy

First of all Western, as your sister agency, is aware of and sensitive to BPA's regional responsibilities. We recognize that you have congressionally mandated requirements and support your efforts to discharge those responsibilities. Our comments are offered within the framework that BPA should also consider mutual benefits with other regions of the country. We feel that BPA is in a pivotal position to mesh your regional needs with ours in the development of the LTIAP. It is only through this cooperative approach that both of our agencies can be assured that we are doing everything we can to fully utilize the resources of this great land.

In fashioning the LTIAP, BPA has reserved Intertie capacity for its surplus power, exhibit C resources, new BPA transactions, and Firm Displacement supported sales. Assured delivery for scheduling utilities is provided for existing and new firm power contracts if certain conditions are met. These aspects of the LTIAP, as well as other proposals to handle extra-regional resources and "spill energy conditions," form the nucleus of BPA's attempt to provide itself and other Northwest utilities with revenue stability and a fixed marketplace for surplus sales.

In the past 5 years, BPA and the Northwest have grappled with the complexities of an open market: decreasing real prices of natural gas and oil, decreased demand from the Direct Service Industries, and competition from resources in Canada, the Southwest and California. Western views the LTIAP as an attempt to control these market forces as opposed to working with changing conditions. We support BPA's desire to meet its fiscal obligations, but we disagree with BPA's chosen method to accomplish this objective.

We believe that the administrative responsibilities of such a policy will grow and will likely lead to numerous controversies, embroiling BPA in needless work which could be directed at enhancing and stimulating the market for sales and exchanges between the Pacific Northwest and Southwest. We recognize the numerous statutory requirements that BPA must implement and the constraints that they place on the Administrator's power marketing program. The Northwest Preference Act, Public Law 88-552, presents the most restrictive conditions--the 5-year recall of capacity and the 60-day recall of energy--for any long-term purchase of firm power from BPA. Long-term resource certainty is a major goal of most utilities. The proposed Firm Displacement supported sales are an attempt to alleviate this problem, although it is not clear whether BPA will require recall provisions for these types of sales.

We believe a return to the concept of an open marketplace would meet BPA's needs and benefit both regions. Such a concept has been recently embraced by BPA through its membership in the Western Systems Power Pool. To accomplish mutual benefit, we must reduce or eliminate the price and availability uncertainties to both regions. To achieve long-term resource certainty for the Southwest and revenue stability for the Northwest, both regions must work together to examine practicable exceptions to Public Law 88-552, and to pursue coordinated resource planning. With respect to the latter, the Northwest and Southwest would examine which resources--generation as well as conservation--should be pursued in both regions in order to minimize or eliminate capacity and energy recalls. Seasonal exchanges could also be encouraged as a means to benefit the regions.*

Load/resource balance should be viewed from a combined perspective and not solely from a Northwest perspective. The regional distinction can no longer be upheld and will prove counterproductive in the future. The regions, together, need to plan cooperatively to meet future demand while ensuring stable electricity prices. Out of region resources, such as from Canada and areas east of the Pacific Northwest, should be allowed to compete for transmission access on an equal basis with utilities and agencies in the Northwest. Controlling the market will cause the distinction between the regions to be continued to the detriment of both. Accordingly, Western suggests that BPA not adopt the LTIAP, or, as an alternative, not extend its applicability to newly available Intertie capacity in the future. If BPA concludes that a LTIAP is necessary, Western has the following comments on the proposal.

* On an even broader scope, as indicated by data in the Western Systems Coordinating Council's Summary of Loads and Resources (April 1986), the Rocky Mountain and Arizona-New Mexico regions are expected to have capacity and energy surpluses in the mid-1990's, a period when the Northwest is projected to become energy deficient and California is projected to be both capacity and energy deficient.

Assured Access for Power From the Midwest

Western appreciates the listing in exhibit C of its contract with BPA for the transmission of power purchased by Western from the Basin Electric Power Cooperative (Basin). The purchase from Basin is one of Western's major resources it uses to meet its firm contractual commitments to deliver Central Valley Project power. The Basin arrangement is in accordance with a congressional mandate to support the Central Valley Project loads through use of the Intertie. Western's obligations arising out of that mandate are no less important then those leading BPA to propose the LTIAP.

BPA was well aware of Western's obligations and encouraged Western's plans to import power from the Midwest to meet its Central Valley Project needs. Mr. Peter Johnson, at that time the BPA Administrator, clearly recognized the character of the BPA obligation in his testimony before the House Appropriations Subcommittee in 1985, when he told Representative Virginia Smith that, subject to certain physical improvements being made to the system to facilitate Basin deliveries, "[a]ll power will be delivered on a firm basis." Energy and Water Development Appropriations for 1986, Hearings Before a Subcommittee of the Committee on Appropriations, United States House of Representatives, 99th Cong., 1st Sess. 1190 (1985).

To facilitate Western's purchases from Midwest resources, Western committed funds to the construction of the Miles City Converter Station in Montana and to other transmission facilities necessary to provide a firm transmission path to BPA from the Midwest. In addition, BPA has made a commitment of resources to the Montana Intertie and agreed to assign a portion of its rights to that transmission capacity to Western. It is in our mutual best interest to assure the utilization of these valuable resources. Therefore, Western believes that it should have the option to continue these transmission arrangements beyond 1990 if the Basin purchase or other Midwest purchases are advantageous economically from a resource utilization standpoint. This option should be provided for in the LTIAP.

Assured Access for Longview Fibre and Tacoma Contracts

Although BPA is currently providing assured delivery under the Near Term Intertie Access Policy for Western's contracts with Tacoma City and Light (Tacoma) and Longview Fibre Company (Longview Fibre), these contracts are not listed on exhibit C and are not provided assured delivery access under the LTIAP.

Exhibit C lists those ". . . contracts that were signed before the implementation of the Near Term LTIAP and were grandfathered under the Near Term LTIAP." The Tacoma and Longview contracts were executed on August 31, 1983, and October 31, 1983, respectively. BPA granted intertie access for these contracts under the Near Term LTIAP which became effective on July 13, 1984. After numerous discussions with BPA regarding the firm power aspects of these two contracts, and certain contract modifications, BPA granted assured delivery for the Tacoma and Longview contracts under the Interim LTIAP and then the Near Term LTIAP.

In summary, Western has already demonstrated to BPA's satisfaction that the Longview Fibre and Tacoma contracts comply with the conditions for assured delivery access under previous LTIAP policies and now substantially embodied into section C of the LTIAP. These contracts were executed well in advance of the adoption of the Near Term LTIAP. Should the contracts not be granted assured delivery, Western's ability to use them in its resource base will be impaired. This impairment could lead to the termination of the contracts which would exacerbate the surplus condition of the Northwest and offset power sales made by BPA to Tacoma and Longview Fibre's supplier. Therefore, Western requests that these contracts be granted assured delivery for the duration of those contracts under the terms of the LTIAP. Should BPA determine that these contracts are not entitled to such access, Western requests that BPA provide, in accordance with the Administrative Procedure Act, and the Department of Energy Organization Act, the rationale for its decision.

Priority Among Resources for Intertie Access

Western requests clarification of the relative priority of section 9(i)(3) resources as compared to exhibit B, which deals with average firm energy surplus and new firm power contracts of scheduling utilities. Nowhere in the document or issue paper does BPA, except for its own resources and Firm Displacement supported sales, make clear how it will, or if it intends to, define priorities for Intertie access for such sales.

Requests for Assured Delivery and Scheduling Requirements

Section 8(b) of the LTIAP states that when available Intertie capacity is reduced and BPA determines that it is insufficient for BPA firm deliveries and the assured deliveries of other scheduling utilities, then Pacific Northwest and Southwest utilities will establish priorities for delivery. BPA should make clear how this action will be done by proposing specific guidelines. Without such guidelines, this proposal is so general that meaningful comments cannot be made.

Term of Assured Delivery

Section 2(b) provides for a maximum of 20 years of assured delivery for new firm power contracts or for existing firm power contracts of a scheduling utility. The LTIAP is proposed to be in effect on July 1, 1987, and is to continue in effect until terminated or modified by the Administrator. Western would recommend that BPA enter into contracts to provide for assured delivery of any firm power contracts and that any such contract which provides assured delivery under the LTIAP not be subject to modification or conformance with any successor LTIAP except as mutually agreed. Such contracts should be "grandfathered" under a modification of the LTIAP, or be granted continued assured delivery even if the LTIAP is terminated. Granting assured access should be viewed as equivalent to a contractual right, coextensive with the terms of the firm power contract. Further, grandfathering provides certainty in long-term resource planning. BPA's concurrence with this approach is requested.

Time for Review

In addition to our specific comments above, Western is very concerned over the amount of time that will be allowed to review the next version of the LTIAP. We believe that significant additional matters need to be addressed in the next version, and that the targeted July 1, 1987, adoption date may not provide full and careful review and consideration by all parties. We recommend that BPA proceed expeditiously, but provide adequate time for review of the next draft.

Thank you for the opportunity to comment.

Joe D. Hall
Assistant Administrator for
Power Management and O&M

bcc:
J. Davies, B0000, Billings, MT
D. Coleman, N0000, Sacramento, CA
A0010
A0200
A6000
A6100
A6110

A6100:RFullerton:x1572:vk:1-5-87:RCF8

COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION
975 S.E. Sandy Boulevard, Suite 202, Portland, Oregon 97214

January 16, 1987

Donna L. Geiger,
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

RE: Draft Intertie Development and
Use Environmental Impact Statement

Dear Ms. Geiger:

The Columbia River Inter-Tribal Fish Commission is composed of the Fish and Wildlife Committees of the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes and Bands of the Yakima Indian Nation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe. The Commission staff provides technical assistance to the Commission and its member tribes in furtherance of the four tribes mutual interests in the anadromous fishery resources of the Columbia River Basin. The four member tribes of the Commission have rights reserved by treaty to take fish that pass their usual and accustomed fishing places.

The Commission hereby provides its comments on the Draft Intertie Development and Use Environmental Impact Statement ("draft IDU-EIS" or "draft"). While we are pleased that Bonneville has actually conducted fisheries impact analyses for this draft, we nevertheless have several concerns with respect to the analyses conducted and Bonneville's characterization of the results of those analyses. We have additional concerns regarding the description of available fisheries mitigation measures and projected small hydro resource development. We are also providing comments with respect to the Proposed Interties Access Policy ("proposed IAP").

A. Indian Treaty Fishing Rights and Related Legal Interests.

As a preface to our specific comments on the draft IDU-EIS and the proposed policy, the following discussion of tribal fishing rights is intended to illuminate the nature of the tribal

interests at stake in Bonneville's decisionmaking with respect to intertie development and use.

1. The Nature of the Treaty Right

The Commission's member tribes' right to take fish that pass their usual and accustomed places is a right confirmed by numerous court decisions. See e.g. Sohappy v. Smith, 302 F.Supp. 899 (D. Or. 1969), aff'd, United States v. Oregon, 529 F.2d. 570 (9th Cir. 1976); Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658 (1979) (Passenger Fishing Vessel). In addition to binding state governments, See Passenger Fishing Vessel 443 U.S. at 682 and n.25, the treaties are also binding on private citizens, See e.g. United States v. Winans, 198 U.S. 371 (1905), and of course the federal government. Passenger Fishing Vessel, 443 U.S. at 682; See also Confederated Tribes of the Umatilla Reservation v. Alexander, 440 F.Supp. 553 (D. Or. 1977).

In Passenger Fishing Vessel, the Court painstakingly examined the circumstances surrounding the negotiation of the treaties in an attempt to divine the parties' long-term intentions. The Supreme Court emphasized that Governor Stevens invited the Tribes to rely on the United States' good faith efforts to protect their right to a fisheries livelihood. Stevens specifically told the tribes: "This paper [the treaty] secures your fish." Id. at 667 n.11. During the treaty negotiations, "the Governor's promises that the treaties would protect that source of food and commerce were crucial in obtaining the Indians' assent." Id. at 676 (emphasis added). As the Supreme Court stressed:

> It is absolutely clear, as Governor Stevens himself said, that neither he nor the Indians intended that the latter "should be excluded from their ancient fisheries," . . . and it is accordingly inconceivable that either party deliberately agreed to authorize future settlers to crowd the Indians out of any meaningful use of their accustomed places to fish.

Id. The Supreme Court also mentioned that the treaty guaranty of "the right of taking fish" was meaningful only if fish were available for the taking. Id. at 678 (emphasis added).

The 130 years since the treaties were signed have witnessed a truly startling number of methods by which the quantity of fish available for the taking could be reduced -- if not decimated. The courts have responded to these threats to the treaty right by declaring a policy that the treaty right cannot be defeated by technology or other methods not anticipated by the treaty signatories. For example, in United States v. Winans, 198 U.S. 371 (1905), the defendant constructed a fish wheel (a device capable of destroying an entire run of fish) and excluded the Indians from one of their usual and accustomed fishing places.

Commenting on the effects of improved fishing devices, the Court noted that:

> wheel fishing is one of the civilized man's methods, as legitimate as the substitution of the modern harvester for the ancient sickle and flail . . . It needs no argument to show that the superiority of a combined harvester over the ancient sickle neither increased nor decreased rights to the use of land held in common. In the actual taking of fish white men may not be confined to a spear or crude net, but it does not follow that they may construct and use a device which gives them exclusive possession of the fishing places, as it is admitted a fish wheel does.

Id. at 382. Thus, although improved technology may be brought to bear on the fishery, that technology cannot be allowed to imperil the rights secured to the parties to the treaty.

This result was reaffirmed by the Supreme Court in Passenger Fishing Vessel. There the Court declared that "[n]on-treaty fishermen may not rely on property law concepts, devices such as the fish wheel, license fees, or general regulations to deprive the Indians of a fair share of the relevant runs of anadromous fish in the case area." Passenger Fishing Vessel, 443 U.S. at 684. The Court's intent is clear: absent specific treaty abrogation legislation from Congress, (Menominee Tribe v. United States, 391 U.S. 404, 413 (1968)), no one may use any method to deprive treaty fishermen of their fair share of the anadromous fish.

2. Federal Duty to Protect Subject Matter of Treaties

In addition to their obligation to not destroy Indian treaty rights without specific Congressional action, federal agencies must use their authority to safeguard that which is the subject matter of federal treaties. In Kittitas Reclamation District v. Sunnyside Valley Irrigation District, 763 F.2d 1032 (9th Cir. 1985), the Ninth Circuit affirmed a district court order to operate a Yakima water project in a manner that would preserve spring chinook salmon redds. Federal project operators had originally sought to reduce water releases in order to store water for the next irrigation season. The proposed flow reductions would have left the redds high and dry. Testimony at the district court hearing indicated that the proposed water storage would be possible if twelve redds were transplanted or if berms were constructed. Id. at 1035. However, the district court judge was "unsure of the effect of these measures, so he continued the watermaster's authority to release water as necessary." Id. Expressly declining to decide the scope of the Yakima Indian Nation's treaty fishing rights, Id. at n.5, the Ninth Circuit found that the district court judge had fashioned a reasonable remedy. Id.

The message in Kittitas is clear. Federal agencies are

obligated to exercise their authorities in a manner that will protect -- not degrade -- the habitat needed to support anadromous fish. In addition, when addressing anadromous fish habitat needs, various measures may be utilized, but the final choice turns not on traditional notions of agency expertise, but on the biological needs of the fish.

3. Magnitude of Fisheries Reserved by Treaty

Bonneville's duty to protect and enhance anadromous fish habitat does not cease once a fish run becomes viable. The tribes reserved more than a right to take a few fish from a meager run struggling for survival. However, tribal harvests at levels taken in aboriginal times are not possible given the contemporary depleted fisheries. The Supreme Court has held that both Indian and non-Indian fishermen possess a right, "secured by treaty, to take a fair share of the available fish." Passenger Fishing Vessel, 443 U.S. at 684-85. The Court determined that Indian harvest allocation should not exceed 50% of the harvestable fish. Id. at 685-86. The Court then declared:

> [T]he central principle here must be that Indian treaty rights to a natural resource that once was thoroughly exclusively exploited by the Indians secures so much as, but no more than, is necessary to provide the Indians with a livelihood -- that is to say, a moderate living.

Perhaps the reason why this "moderate living standard" unearthed by the Supreme Court has not proven to be a truly thorny problem in Pacific Northwest fisheries management is because no one can reasonably contend that the Indians' harvest presently yields a moderate living. This fact was implicitly acknowledged by the Supreme Court in Passenger Fishing Vessel. Id. at 686.

As discussed earlier, the Ninth Circuit has already determined that federal agencies must refrain from taking actions that will reduce the number of fish in a depleted run. See Kittitas, 763 F.2d at 1035. Nor does this duty cease when an anadromous fish run manages to increase its numbers beyond the dangerous level of minimum viability. In United States v. Adair, 723 F.2d 1394 (9th Cir. 1984), the Ninth Circuit stated that:

> Implicit in this "moderate living" standard is the conclusion that Indian tribes are not generally entitled to the same level of exclusive use and exploitation of a natural resource that they enjoyed at the time that they entered into the treaty reserving their interest in the resource, unless, of course, no lesser level will supply them with a moderate living. Id. at 1415 (emphasis added).

Here the Ninth Circuit has indicated that the Klamaths must be allowed to achieve their "moderate living." The court

explicitly stated the possibility that the "moderate living standard" may only be achieved by allowing the tribe to enjoy the "same level of exclusive use and exploitation" it had at the time the treaty was concluded. Id. The purport of this holding is clear. Federal agencies owe a duty to refrain from activities that will interfere with the fulfillment of treaty rights.

B. BONNEVILLE'S ANALYSES OF FISHERIES IMPACTS ARE INADEQUATE

1. The draft IDU-EIS fails to verify or address the sensitivity of FISHPASS to input parameters and the accuracy of those parameters.

a) FISHPASS Verification

FISHPASS, a complex ecological model that attempts to simulate an inadequately understood biological system, suffers from a number of inadequacies. The model was only recently developed, between May 1984 and March 1985, by the Corps of Engineers. The model's prior applications have met with strong criticisms from the state and federal fisheries agencies and the basin's Indian tribes. Among other things, none of these entities has sufficient in-house computer capability to actually run the model and test it. Moreover, the model has not been verified by comparison to known conditions. Verification is a stage in ecological model development where a model is tested to determine its capability to simulate results which have been measured by independent techniques. Orlob, G.T., 1975. In C.S. Russel (ed.), Ecological Modeling, John Hopkins Press, 394 pp. Indeed, the limited scope of the model, which deals only with one life phase of a given population of salmon, and the very limited available data to support input assumptions would make the model very difficult to verify. Consequently, we request that Bonneville recognize in the IDU-EIS that FISHPASS has not been verified as capable of determining the magnitude of actual fish migration mortalities and the effects of those mortalities on population trends.

b) FISHPASS Sensitivity

Since only limited data is available with which to understand the process of smolt outmigration, the FISHPASS model contains many hypotheses about interactions and other biological factors. These assumptions significantly affect the model output. The fact that there are many critical assumptions in FISHPASS deems necessary a sensitivity analysis.

The level of precision of the input parameters, and their interactions, determines the strength and validity of the model's numeric output. If the interaction and precision of the individual parameters are not sufficiently documented then the application of the model output should be restricted. The purpose of the sensitivity analysis is to define the model's response to variations in input data, coefficients, boundary conditions and even the functional representations included in the model. The product of a well-executed sensitivity analysis may be a modified or improved model or simply a statement of the model's limitations in terms of the data and information supplied to it. Id.

The draft does not describe whether BPA has conducted a sensitivity analysis of FISHPASS for purposes of the IDU-EIS, nor does it describe the results of any sensitivity analyses of FISHPASS that may have been completed by other entities. Recently, the Mainstem Passage Advisory Committee (MPAC) of the Northwest Power Planning Council completed, to date the most extensive, although acknowledged by its authors to be very limited, sensitivity analysis of FISHPASS. Minutes of the Mainstem Passage Advisory Committee, December 9, 1986, Exhibit A. That analysis indicates that FISHPASS is most sensitive to changes in inputs for reservoir mortality, turbine mortality, transport survival, and fish guidance efficiency. Significantly, this analysis did not address the interactions that might occur among variables, e.g. it did not test FISHPASS to determine the results of simultaneously varying assumptions about spill efficiency, reservoir mortality, transportation mortality, and fish guidance efficiency. Id. at 14.

Appended to the MPAC minutes of December 9 is an August 25, 1986 memorandum of Bolyvong Tanovan, the principal author of FISHPASS, acknowledging that many of the FISHPASS "inputs are presently only known within variable ranges of values; and there is no easy way of directly determining the accuracy of its output." The memorandum goes on to suggest alternative methods of testing the sensitivity of FISHPASS. The most logical method, and the most time-consuming, of testing the model's sensitivity would be to run tests of varying input values for all parameters in an interactive fashion. The MPAC did not conduct such analyses, but implicitly recognized their necessity by acknowledging that the reported sensitivity analysis was incomplete.

We request that if Bonneville intends to rely on FISHPASS model output for the final IDU-EIS, it conduct a more complete sensitivity analysis of FISHPASS. Such an analysis should test, at a minimum, high and low input values for the following key model parameters: spill efficiency, turbine mortality, reservoir mortality, transport mortality, fish guidance efficiency, diel distribution, seasonal distribution, spill survival, bypass survival, collection survival and the interactions that occur among these variables. The input values should be representative of the range of valid scientific opinions that have been drawn

from existing data. We would recommend that such values be obtained from an inter-agency committee comprised of representatives from the fisheries agencies and tribes.

The absence of a well-conducted sensitivity analysis is a glaring omission from the draft IDU-EIS, which undermines the credibility of the models numeric output. In an analysis the Commission staff conducted with respect to the BPA supplemental EA for the D.C. Terminal Expansion, we determined that FISHPASS model output could ascertain statistically significant changes in fish mortality, but it was incapable of determining the precise magnitude of those changes. We believe that our analysis applies with equal force to the studies BPA conducted for the IDU-EIS, and we herein incorporate by reference the Commission's August 8, 1986 letter and attachments from S. Timothy Wapato, CRITFC to Timothy Murray, BPA, Exhibit B.

Based on our prior analysis, the MPAC sensitivity analysis, and the Tanovan memorandum, we dispute Bonneville's over-reliance on the quantitative output of FISHPASS. We believe that Bonneville, in analyzing FISHPASS output, should have applied the statistical test that the Commission staff utilized in our August 8 letter of comments. That test does not depend upon the accuracy of absolute survival rates calculated by FISHPASS. Had Bonneville applied the above-suggested statistical test, it is our belief, based upon our earlier analysis, that virtually all of the salmon and steelhead stocks that were studied would be subject to substantial potential for significant increases in mortality associated with all levels of intertie upgrade and with each of the policies under consideration.

c) Accuracy of Input

Many of the inputs utilized in the FISHPASS analysis were obtained from MPAC. Draft IDU-EIS at C-1. The draft, however, fails to discuss the known variation in the data for those parameters for which MPAC values were used. The draft is thus misleading. The reader would logically assume that a high degree of certainty would be associated with MPAC values, insofar as no alternative values are presented in the draft. Yet, this is not the case. The MPAC values were not obtained by consensus of scientific opinion and were, in fact, the subject of considerable scientific disagreement. The limited sensitivity analysis conducted by MPAC was an outgrowth of that disagreement and represents scientific opinion on the ranges of certain input information.

In a letter to Steve Smith, BPA, dated August 4, 1986, we requested that BPA conduct additional FISHPASS modeling runs that vary certain input parameters and the interaction among these parameters: turbine mortality, fish guidance efficiency, spill efficiency, and transport mortality. Exhibit B. The values suggested for those parameters are within the ranges of observed data. BPA did conduct a subsequent analysis which altered values for some of the parameters we had suggested. The BPA analysis

did not, however, conduct the specific studies we had contemplated, i.e. changing input values for fish guidance efficiency, turbine mortality, and spill efficiency. In our letter of August 8 to Timothy Murray we described our concerns with respect to input values utilized by BPA in analyzing impacts of the D.C. Terminal Expansion. Those same concerns extend to the draft IDU-EIS.

Additionally, we note that FISHPASS is most sensitive to changes in reservoir mortality. MPAC Minutes December 9, 1986. However, this is one of the model parameters for which the least data is available. The reservoir mortality curve developed for MPAC use suffers from a serious flaw in the manner in which limited available data was collected. The studies from which the mortality data was obtained aggregated mortality in the Columbia River up to the confluence of the Snake and the Snake River to Lower Granite Dam. Independent reservoir mortality estimates are not available for the Snake River and lower Columbia River reservoirs. Yet, the character of these reservoirs differ markedly.

MPAC essentially took the approach of averaging the mortality rates across all measured reservoirs and extrapolating where measurements were not available. A significant problem with this approach is that it is likely to underestimate reservoir mortality in the lower Columbia and overestimate reservoir mortality in the Snake. Consequently, the mortality of mid-Columbia and lower-Columbia stocks is likely to have been underestimated.

2. The draft IDU-EIS underestimates the significance of fish survival changes.

a) Chinook harvest restrictions.

According to the draft, the condition of none of the chinook stocks potentially affected by the intertie restricts ocean harvests off the northern California, Oregon, and Washington coasts. Draft IDU-EIS at 4.5-27. This statement is largely true, but more importantly it is irrelevent. Most Columbia River chinook stocks are not harvested off California, Oregon, or Washington coasts. They are harvested off the coasts of Alaska and British Columbia and in fisheries inside the mouth of the Columbia River. CRITFC, U.S.-Canada Chinook Technical Reports, Table 9, Exhibit C. These fisheries have been restricted to protect upper Columbia River chinook. In fact, the Chinook Annex to the U.S.-Canada Pacific Salmon Treaty indicates the centrality of the upper Columbia River chinook stocks to negotiation and ratification of that treaty. Jensen, The U.S.-Canada Pacific Salmon Interception Treaty: An Historical and Legal Overview, 16 Envtl. L. 363, 387-405 (1986).

Among other things, the Pacific Salmon Treaty mandates that

naturally spawning chinook stocks be rebuilt by 1998. Pacific Salmon Treaty at Annex IV, ch. 3, para. 1(a)(ii). The draft IDU-EIS does not mention these overriding international obligations which the United States has assumed. In this respect the draft is highly misleading. The fate of ocean harvests is inextricably intwined with the status of naturally spawning Columbia River chinook stocks. Ocean harvests off British Columbia and Alaska are restricted and those fisheries may be further restricted when tag recoveries are available providing better data on interception rates for additional chinook stocks. In 1986, hundreds of thousands of juvenile chinook were marked with coded wire tags to obtain improved interception data on Columbia River spring chinook stocks. (Mark data available from the Washington Department of Fisheries and the U.S. Fish and Wildlife Service.)

The draft IDU-EIS does not mention that inriver fisheries have been severely restricted to protect Columbia River spring chinook. Directed commercial fisheries on upriver spring chinook have not occurred since the 1970's. Indeed, the Commission's member tribes and the states of Idaho, Oregon, and Washington have resorted to federal district court to settle differences among them with respect to de minimus tribal ceremonial and subsistence harvests of spring chinook. See U.S. v. Oregon, No. 68-513, Order (April 23, 1985) (Idaho requested restriction to no more than 2000 spring chinook taken in tribal harvests).

At present, inriver commercial harvests of abundant A-run summer steelhead are constrained by depressed summer chinook. The summer chinook are migrating upriver in July at the same time as summer steelhead. Because of the similarity in the size of the two fish, summer chinook might be susceptible to high interception rates in net fisheries directed toward summer steelhead. Recognizing this possibility, tribal harvest management regulations have precluded commercial summer steelhead fisheries during July.

In summary, most fisheries that are capable of harvesting Columbia River chinook stocks are restricted due to depressed stock status. Although spring and summer chinook have been heavily harvested in the past for commercial purposes, no commercial fisheries are now directed toward those stocks due to their current weak state. The draft IDU-EIS fails to present a meaningful picture of the relationship of upriver chinook stocks to historic and current fisheries. We request that the draft be revised to acknowledge the once tremendously significant commercial harvests of spring and summer chinook and that no commercial fisheries intercept these fish due to their depleted conditions.

b) Upriver spring chinook is a critical stock.

The draft indicates that spring chinook appears to be making a strong recovery. Draft IDU-EIS at 4.5-27. We disagree. While

the reported spring 1986 chinook escapement is accurate, the draft fails to explain several overriding concerns, which cause us to be less optimistic about spring chinook. First, recent trends in escapement provide only a very limited picture of stock status. In addition to escapement, it is necessary to obtain complete harvest and passage mortality information to reconstruct run history and determine the strength of any particular run of fish. This is basic harvest management. Consequently recent increasing run sizes of spring chinook at Bonneville Dam present only an incomplete picture. For instance, the 1987 projected escapement of spring chinook is anticipated to approximately 80,000 spring chinook, which is 32% less than the 1986 escapement. Additionally, the draft overlooks the composition of the spring chinook run at Bonneville, which is composed of approximately 65% hatchery fish and 35% naturally produced fish. See Table from Preliminary Report of the Technical Advisory Committee to the Pacific Salmon Commission, (January 16, 1986), Exhibit D. It is the intent of the states and tribes that spring chinook escapement at Bonneville Dam should be comprised of approximately 65% naturally produced spring chinook. BPA's characterization of increasing spring chinook runs ignores the naturally spawning component of the spring chinook run and Pacific Salmon Treaty obligations directing the rebuilding of naturally spawning chinook. We request that Bonneville recognize spring chinook as a critical stock.

c) Increased sockeye run sizes may be transient.

Sockeye runs are characterized by erratic swings in year-to-year escapements. Howell, et al., 1984, Stock Assessment of Columbia River Anadromous Salmonids, Vol. I, 551. The cause of such swings is generally unknown and the swings cannot be predicted even one year in advance. We believe that it is highly misleading to present only recent escapement data for sockeye as indicating the health of that stock. Long term population trend data (i.e. twenty years or more) would be more useful and would more fairly represent the likelihood that sockeye escapements will take a downturn. Given the limited data on the life history of these fish and the location of their principal spawning areas, above 7 to 9 dams, we request that these fish also be treated as a critical stock.

d) Wells pool summer chinook mortality estimates cannot be defined with the level of precision appearing in the draft.

The draft utilizes absolute mortality estimates derived from FISHPASS to estimate the adult equivalency of the maximum one-year decrease in survival. Draft IDU-EIS at 2.5-47. As we have indicated above, we do not believe that FISHPASS can be applied in this fashion. Such precise estimates give the model an aura of credibility it does not deserve. We request that this analysis be deleted from the draft.

C. The Draft IDU-EIS's Treatment of Mitigation Is Inadequate.

Council on Environmental Quality Regulations require that environmental impact statements discuss the means to mitigate adverse environmental impacts. "A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA." Northwest Indian Cemetery Protective Assn. v. Peterson, 795 F.2d 688, 697 (9th Cir. 1986). Rather, the discussion of mitigation must cover the range of impacts of the proposal. Where a proposal is considered as a whole to have significant effects, all of its specific effects on the environment (whether or not "significant") must be considered, and mitigation measures developed where feasible. 40 C.F.R. 1502.14(f), 1502.16(h), and 1508.14; 46 Fed. Reg. 18031 (March 23, 1981) (Forty most asked questions concerning CEQ's NEPA regulations).

The treatment of fisheries mitigation in the draft IDU-EIS is thoroughly inadequate. Draft IDU-EIS at 4.5-28. The discussion merely lists a "number" of mitigation measures. The list is both incomplete and lacks the reasoned discussion required by the National Environmental Policy Act. We request that in accordance with this discussion that Bonneville revise its treatment of fisheries mitigation. Once a preferred alternative is selected by BPA, we would expect that the mitigation would be implemented as necessary to protect, mitigate, and enhance anadromous fish.

1. Turbine screening and juvenile bypass system mitigation measures are not adequately addressed.

a) Corps dams.

The draft IDU-EIS evidently anticipates the construction of turbine screens and juvenile bypass systems at the three Corps dams that do not currently have such facilities: Lower Monumental, Ice Harbor, and The Dalles dams. Draft IDU-EIS at C-2. The fish guidance efficiencies listed in table C.3 would be unattainable without such devices. Additionally, the draft contemplates improvements in fish guidance efficiencies at four of the Corps dams with existing screening and bypass systems. However, the draft does not provide an assessment of the probabilities of such actions taking place. Such an assessment is required by NEPA. In addition, the assessment should indicate whether there has been a history of nonenforcement of such measures. 46 Fed. Reg. 18032 (March 23, 1981). It is generally known that installation of bypass systems at Corps dams has frequently fallen behind schedule. National Marine Fisheries Service, Environmental and Technical Services Division, 1986," Mainstem Passage Programs for Juvenile Fish Before and After

Enactment of the Northwest Power Act, 28-29, Exhibit E. The Northwest Power Planning Council has recently proposed to extend bypass completion deadlines for the three Corps dams without such systems. Northwest Power Planning Council, 1986 Draft Amendment Document (September 1, 1986). We request that Bonneville provide assurances in the IDU-EIS that the fish guidance efficiencies specified in table C.2 will be achieved by 1992.

The draft does not describe the availability of mitigation measures to offset turbine related mortalities should the intertie be expanded prior to installation of mechanical bypass at Ice Harbor, Lower Monumental, and The Dalles dams and prior to improvements in existing bypass systems. We request that Bonneville specifically consider a program of planned spills at all federal projects as necessary to attain 70% guidance efficiency of spring migrants and 50% guidance efficiency of summer migrants. We have evaluated such a program in conjunction with the state and federal fish and wildlife agencies and have previously proposed such a program to BPA staff.

2) Non-federal dams.

The discussion of turbine screening and bypass system development is incomplete with respect to the mid-Columbia Public Utility District dams. The 1984 Fish and Wildlife Program requires the development of bypass systems at each of these five dams. Fish and Wildlife Program at 404(a) (1), (2), & (3). NEPA requires the identification of relevent mitigation measures even if they are outside the jurisdictions of the lead and cooperating agencies. In this case, BPA should identify the likely completion dates of bypass systems at the mid-Columbia P.U.D. projects in relation to the probability of intertie upgrade. This will serve to alert the Federal Energy Regulatory Commission which can direct implementation of those measures. BPA should encourage FERC to ensure that these mitigation measures are implemented in a timely fashion so as to preceed anticipated fisheries impacts. See 46 Fed. Reg. 18032; Confederated Tribes of the Yakima Indian Nation v. FERC, 747 F. 2d 466 (9th Cir. 1984)(mitigation should not be delayed to post-licensing proceedings).

2. Expanded collection and transport may be detrimental.

Expansion of transportation programs for chinook may not be warranted in light of existing data. We commented on measured transportation success in our August 8 letter to Timothy Murray and herein incorporate that discussion. The IDU-EIS should not lead the reader to believe that transportation will necessarily be effective mitigation for affected salmon stocks. Recent transport studies conducted at Priest Rapids by Chapman et al. have not proved that transportation would be acceptable for the

yearling chinook that were tested. Additional discussions of the merits of transportation are contained in:

June 6, 1986 letter to Robert Saxvik, NPPC, from CRITFC

Transport Benefit Experiments, the Error Associated with Expansion, by Margaret Filardo, CRITFC, June 6, 1986

Incorporation of Transportation in Analysis of Fish Passage Alternatives, by Chip McConnaha and Jim Ruff, NPPC, November 4, 1986

FISHPASS Sensitivity, Report of the Mainstem Passage Advisory Committee, attached to the December 8, 1986 MPAC minutes

The IDU-EIS should carefully discuss the possibility for additional transportation to provide mitigation, particularly in light of the above information.

3. Increasing levels of spill not addressed.

As mentioned above, the draft does not address increasing levels of programmed spill as potential mitigation for impacts caused by intertie expansion. We request that Bonneville evaluate the 70/50 spill program in this regard. Additionally, the modeling assumptions which incorporate the 1985 Corps spill plan do not reflect those levels of spill believed necessary by the state and federal fish and wildlife agencies and Indian tribes. See NMFS, Progress Report. Thus we question the use of either the 1985 or 1986 Corps spill plan. We believe that Bonneville should model alternative spill plans, including the 70/50 spill program, as the base case insofar as the Corps' plan is likely to change in the future.

4. Increasing the Water Budget is not addressed.

One of the clearest means to mitigate the impacts of intertie expansion would be to increase the availability of water for use in the Water Budget. Contrary to the assertion at page 4.5-10, Karr (1982) did not state that the biologically acceptable limit for fish travel time is 30 days. Karr stated that coastal coho maintain elevated thyroxin levels for only 30 days and that if this information is applicable to Columbia River coho flow should be provided to ensure that migrants reach salt water within this time frame. Karr goes on to state that smolts should be moved from fresh water rearing areas to salt water as rapidly as possible. Since preparation of that report in 1982, Karr has had the benefit of additional years of experience as the tribal Water Budget Manager. He is very concerned that his 1982 work has been misinterpreted as indicating a 30-day window of

safety for smolt migration. The proper interpretation of his analysis is that increasing benefits are associated with moving fish out to salt water as quickly as possible, which he states in his 1982 report. Indeed, the reservoir mortality curve employed by Bonneville in its FISHPASS model fully supports Karr's assertion of increasing biological benefits associated with decreasing fish travel time to the ocean.

We request that Bonneville consider a modification of the Water Budget as mitigation for intertie development and use. Specifically we request that BPA consider and adopt the proposed sliding scale accounting procedures for the mid-Columbia segment of the Water Budget. These procedures were recommended by CRITFC to the Northwest Power Planning Council on December 15, 1986. A copy of this our recommendation is attached as Exhibit F. With respect to the Snake component of the Water Budget we request that BPA evaluate and address the acquisition of Snake River runoff through a cooperative agreement utilizing Idaho Power Company's Brownlee storage project.

5. Expanded hatchery production may not be suitable mitigation.

Expanded hatchery production may not serve as suitable mitigation for losses of naturally produced fish. A carefully structured natural production program designed to protect the genetic profile of a particular stock could be severely impacted by increased levels of mortality and the introduction of additional hatchery progeny into the program. Increased hatchery efforts in the absence of related natural production programs are likely to be inconsistent with the obligations to restore naturally spawning populations of chinook in the Columbia River basin. We request that Bonneville actually identify the increases in hatchery production that it proposes as mitigation as well as the reasonably forseeable effects of that hatchery production on the status of natural production.

6. Habitat improvements may not provide sufficient mitigation.

While habitat improvements may be used to increase the carrying capacity of spawning and rearing streams, that capacity in and of itself will not result in the production of anadromous fish. This is particularly true where stock survival is already heavily impacted by factors other than those which are tributary habitat related, such as mainstem passage and ocean harvest. We request that Bonneville identify the specific habitat mitigation measures it proposes and discuss the suitability of those measures to offset the impacts of intertie development and use.

D. Bonneville's Power Analysis Is Inadequate.

1. The Least Cost Mix Model (LCMM).

We disagree with BPA's use of the LCMM to estimate future resource development in the region. In this respect we concur with the comments of the National Wildlife Federation on this issue. We believe that BPA should have used the Northwest Power Planning Council's Energy Plan to determine the base case for future resource development. Indeed we are very troubled by the discrepancy between the future small hydro development that is predicted by the LCMM and that contained in the Council's Energy Plan.

If the LCMM predicted development of small hydro resources is at all accurate, we believe that the draft does not adequately address the impacts of this additional hydro development. A reasonable assessment of future hydropower development should at a minimum contain a thorough description of those measures in the Fish and Wildlife Program addressing hydropower development and an evaluation of the probable effects of those measures on fisheries impacts. For instance, Bonneville has funded pursuant to the Program a Rivers Assessment Study. Among the purposes of this study is the designation of areas within the Columbia basin to be protected from hydro development. We request that Bonneville address the designation of protected areas in accordance with the Fish and Wildlife Program as possible mitigation for new small hydro development.

2. Generic Contract Assumption.

We concur with the comments of the National Wildlife Federation with respect to BPA's assumptions about generic firm contracts.

E. Intertie Access Policy Recommendations.

1. Fish and Wildlife Provisions.

We are encouraged by the provisions BPA has included in the proposed IAP with respect to decrementing intertie access for resources causing adverse impacts to fish and wildlife. However, we are concerned that terminology used by BPA may lead to difficulties in implementation. It is our view that the word "significant" should be substituted for the word "substantial" under subsection D.3.c.(1). In subsection D.3.c.(3) we recommend the deletion of the word "substantial" with no substitution. In our view, if an adverse effect upon fish and wildlife results in a discernible impact to the Administrator's obligations to protect, mitigate, and enhance, fish and wildlife, that such impacts are sufficient to preclude access. This terminology would allow Bonneville greater control over the impacts others may impose on its programmatic efforts and expenditures. Additionally, the Northwest Power Act anticipates compliance, not

"substantial" compliance.

2. New Resources.

With respect to new resources, we suggest that Bonneville consider a policy where no new resources are allowed access to the Intertie until a fixed amount of capacity/energy exchange contracts, such as the generic contract anticipates, are in place. Such a policy would provide incentive to the type of contractual arrangements that may be most beneficial to the region.

Conclusion

Thank you for the opportunity to comment. We request that as you proceed with subsequent NEPA analyses and the development of mitigation proposals that you consult with the Commission and the state and federal fish and wildlife agencies.

Sincerely,

S. Timothy Wapato

S. Timothy Wapato,
Executive Director

cc: Fish and Wildlife Committees
Tribal Attorneys

EXHIBIT A

attachment 7E-1-87

NORTHWEST POWER PLANNING COUNCIL

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MINUTES

MAINSTEM PASSAGE ADVISORY COMMITTEE
December 9, 1986
Portland, Oregon

Members present
Jim Ruff, Chairman
Chip McConnaha, Vice-Chair
Doug Arndt, COE
Stephanie Burchfield, CRITFC
Doug DeHart, NMFS
Fred Olney, USFWS
Al Wright, PNUCC

Members absent
Wes Ebel, NMFS
Steve Smith, BPA

Public present
Dick Adams, PNUCC
John Coon, PFMC
Margaret Filardo, CRITFC
Jim Geiselman, BPA
Mike Henry, FERC
Chris Ross, NMFS
Chris Stoffels, BPA
Frank Young, ODFW

Recorder
Dorothy Anderson

I. CALL TO ORDER

The meeting was called to order at 1:30 p.m. by Chairman Ruff.

II. AGENDA

There were no additions or deletions to the agenda (Exhibit A).

III. BUSINESS

The minutes of November 14, 1986 were reviewed with comment #1 on page 3 revised to read: "The 1985 spill program was selected rather than the 1986 program due to higher levels of spill in 1985".

IV. DISCUSSION OF DEVELOPMENT OF MAINSTEM PASSAGE MODEL

Jim Ruff briefly reviewed the discussion which took place at the November 14th MPAC meeting regarding the development of a new mainstem passage model. An outline of objectives and guidelines drafted by BPA and provided to the committee at the November meeting served as the focal point for further committee discussion.

Comments:

1. It was asserted that the effort involved in developing a new model would be justified only if the output focused upon the standardization of the analytical process rather than the achievement of greater precision.

2. It was suggested that a new model should include the capability of deriving outputs compatible with power analysis models such as the System Analysis Model.

3. It was requested that further comments on the draft "Proposal to Rewrite the FISHPASS Program" be submitted to Jim Ruff by December 15, 1986. A revised version of that proposal, based on committee comments, is included as Exhibit B, including an attached memorandum by Bolyvong Tanovan of the Corps of Engineers on the need for probabilistic additions to the FISHPASS model. Any further activity on model development will be under the auspices of a new advisory committee in the spring of 1987.

V. Maragaret Filardo, CRITFC, briefly summarized the organization of the revised draft sensitivity analysis results (Exhibit C) as follows:

1. The first set of model runs attempted to prioritize some of the parameters by analyzing the high and low estimate for each of the parameters. The prioritized set of parameters included reservoir survival, FGE, turbine survival, and spill effectiveness. Runs with and without FTOT transportation were then performed;

2. Because an analysis of this first set of runs showed that the results could not be directly compared between parameters, a second approach analyzed a certain percentage above and below the MPAC estimates.

Comments:

1. It was recommended that the sensitivity work group report serve as the foundation for any future proceedings in the development of a new mainstem passage model.

2. With reference to future sensitivity analysis work, it was suggested that an analysis using a range of spill scenarios would be useful.

3. It was agreed by the committee that the final report of the sensitivity analysis results would be included in the minutes of the December 9th meeting. This final report will incorporate editorial comments and suggestions submitted by committee members.

4. It was stressed that the committee recognize that the sensitivity analysis report does not attempt to evaluate the actual variability and/or range.

5. It was asserted that an analysis similar to that in the sensitivity report could provide an indication of future research needs.

7. Since a different flow year volume and pattern could result in different conclusions, it was cautioned that the output be applied appropriately.

8. It was suggested that the qualifications and limitations listed on page 8 be highlighted in the final report.

VI. FURTHER DISCUSSION OF SECTION 400 DRAFT AMENDMENT DOCUMENT MEASURES

Jim Ruff announced a meeting to be held at 2:00, December 12 at the downtown Seattle Hilton for purposes of discussing spill and water budget accounting. Chairman Ruff clarified the major topics of this discussion as consisting of the following:

1. The revision of the language regarding the accounting procedures in the water budget's accounting proposal. This revision was requested by CRITFC for purposes of maintaining flexibility in a situation which changes annually;

2. A proposal from IDFG recommending the minimum optimum flow concept for the Snake River;

3. The postponement of issues related to the above topics, along with an extension of the comment period;

4. The option of leaving portions of Section 300 open rather that the entire section.

VII. OTHER

None.

VIII. PUBLIC COMMENT

None.

IX. ADJOURN

James D. Ruff, Chairman

These minutes are a complete and accurate summary of the Mainstem Passage Advisory Committee meeting held December 9, 1986.

EXHIBIT A

NORTHWEST POWER PLANNING COUNCIL

SUITE 1100 • 850 S.W. BROADWAY
PORTLAND, OREGON 97205 • (503) 222-5161

Toll free number for Idaho, Montana & Washington: 1-800-222-3355
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AGENDA

Meeting of the

MAINSTEM PASSAGE ADVISORY COMMITTEE

1:30 p.m. - December 9, 1986
Council Meeting Room
Portland, Oregon

I. Call to order

II. Review agenda

III. Business

IV. Discussion of development of mainstem passage model

V. Work group report on final results of FISHPASS model sensitivity analysis

VI. Further discussion of Section 400 draft amendment document measures

VII. Other

VIII. Public comment

IX. Adjourn

Exhibit B

December 15, 1986

MEMORANDUM

TO: MPAC Members

FROM: Jim Ruff JR

SUBJECT: Revisions to the Proposal to Rewrite the FISHPASS Program or to Develop a New Mainstem Passage Survival Model

The following are committee member suggestions and revisions to the objectives concerning proposals to rewrite the FISHPASS program to make it more "user-friendly," as discussed at recent Mainstem Passage Advisory Committee (MPAC) meetings. These suggestions, if implemented in total, would likely necessitate development of a new mainstem passage survival model. As stated at the last MPAC meeting, development of a new mainstem passage model would be justified only if the effort focused on standardization of the analytical processes in the model rather than trying to achieve greater output precision. The model should also be accessible to any agency or organization which desires to utilize the model's analytic capabilities.

Model Objectives or Suggested Revisions

1. A user should be able to run the model on a PC rather than a mainframe. It could be a major undertaking to develop such a model on a PC, since the existing FISHPASS program requires over 640,000 bytes of storage to run.

2. The model needs to be more flexible and easier to run than FISHPASS.

a. Parameters should be able to be modified easily to enable the user to run alternative passage scenarios quickly. Presently, FISHPASS data sets have to be changed manually for each scenario to be studied, which is a time-consuming and laborious process.

b. It should have a built-in sensitivity for fish guidance efficiencies and other passage parameters, i.e., a switch that could be turned on or off to utilize parameter distributions (see also 5.d. below).

3. The model should be user-friendly so that it does not require extensive training or computer skills to run, i.e., both the input and output files should be menu-driven.

4. The ability to link the program's output to other models needs to be considered, although developing such linkages could be difficult since it would require development of interface programs for both the input and output data files. Suggestions for possible model linkages include:

a. A linkage with the System Analysis Model or the VAX system.
b. A linkage with the SAS graphics program.
c. A linkage with the Council's "gravel-to-gravel" life cycle production model.
d. A linkage to BPA-Fish and Wildlife Division's project management information system for simulation of proposed and completed projects.

5. Input data file suggestions:

a. The input data files should be menu-driven, for example:

1) Link to a water year dataset--could have default water years built into the program, but user could also choose different water years.
2) Should have the potential to include new or expanded hatchery production.
3) Should be able to apply the EPA stream reach designation code to enable a linkage to the Council's anadromous fish data base.

b. User should be able to specify alternative seasonal and diel fish distributions, i.e., skewed early or late, random, or normal distribution between two dates.
c. Should consider changing the fish input for Lower Granite and Wells headwaters so it is in the same format as the hatchery data.
d. Should consider building in stochastic elements for selected input parameters, e.g., developing a production distribution in input data file. This assumes adequate data are available to develop probability distributions and that consensus can be reached on use of distributions.
e. An option should be available to specify a differential mortality for transported fish, by species.

6. Output data file suggestions:

a. An output summary table should be developed to enable "first glance" review of results without having to wade through all output.
b. The output files should be menu-driven, i.e., the program should have a menu containing a listing and brief description of each output report available so a user can select output report(s) of interest.
c. The output should have the capability to provide the following types of information:

1) System stock survival rates for each stock, regardless of where a stock enters the system, e.g., stream or hatchery.
2) Dam survival rates.
3) Reservoir survival rates.
4) Project survival rates, e.g., dam + reservoir survival.
5) System survival rates.
6) System reservoir survival rates.
7) System dam survival rates.
8) Survival rates 2) through 7) above by species.
9) Total numbers of fish arriving below BON Dam, by stock.
10) The seasonal and diel fish distributions used.
11) The percentages of hatchery vs. natural or wild production within each pool, for the spring and summer periods.

d. Maintain all output that FISHPASS reports now, but reformat it in a simpler, tabular form.
e. Include the capability to have output files graphically displayed.
f. Provide an output file showing number of juveniles entering various points of the Columbia and Snake rivers by stock and whether artificially or naturally propagated.
g. Provide the capability for 40 or 50-year hydrologic simulations with resulting expected value survival levels by stock, for both base year and future year production levels, or an average annual production level. It was noted this would be a very time consuming and difficult program to run on a PC system.

ATTACHMENT

25 August 1986

NPDEN-WM(Water Quality)

MEMORANDUM FOR THE RECORDS
Subject: Probabilistic Appendage to FISHPASS Model

1. FISHPASS Model is a conceptual model designed to perform a detailed accounting of anadromous fish losses in the main stem Columbia/Snake Rivers (See attached model description). While it incorporates elements that are believed to be fairly representative of the fish migration process, many of its inputs are presently only known within variable ranges of values; and there is no easy way of directly determining the accuracy of its output. For practical purposes, it is essential to provide some kind of probabilistic sensitivity analysis, including simple variances and summary statistics based on these variances. We need a procedure to quickly determine the confidence level of the model output by using the least amount of parameter combinations possible and, therefore, by making the minimum number of model calculations.

2. Since there are a good one dozen of parameters involved in the model, to include all the logical combinations of high and low values of these parameters (C=2**12=4096) in the probabilistic sensitivity analysis would clearly be unmanageable. Several simplifying assumptions come to mind that may reduce the number of combinations, e.g. high and the low parameter values have equal or quantifiable differential occurrence probabilities; selected parameters are semi-independent and vary up and down in tandem; parameter variation can be approximated by a known function, possibly linking frequency of occurrence and parameter values; etc.

3. An alternative to the above problem would be to try to first agree on the probability distribution for each parameter of the model-- outlining the shape of the distribution function between the high and the low parameter values and relating this distribution function with quantifiable parameter values. This alternative should also involve examining how joint probability would work for those parameters that may not be truly independent from a biological point of view (conditional probability). The remaining task would then be, knowing the probabilities of occurrence for each and every parameter value specified to the model, to determine the resulting confidence level of the model output.

4. A variation to the alternative mentioned in Paragraph 3 would be to apply one of the Monte Carlo simulation techniques. The following steps would be followed:

(1) define the parameter distribution probability functions
(2) calculate the cumulative distribution function
(3) generate N cycles of random numbers
(4) locate parameter value for each random number
(5) run the model for each of the N parameter sets, and
(6) calculate the average value of the outputs

Obviously, this approach assumes that the model parameters can vary randomly between given high and low values, and that the entire set of logical parameter combination is all physically possible (and will occur with certainty).

5. Regardless of the procedure used, there appears to be considerable problem in accommodating the truly randomness of parameter distribution and conditional probability, and in achieving meaningful results with a limited number of model runs. Brain-storming between knowledgeable fish biologists, computer modelers and statisticians on this subject would be highly beneficial.

Bolyvong Tanovan
Ch, Water Quality Section

FISHPASS SENSITIVITY

INTRODUCTION

Ecological models, which can be used to simulate biological systems, can provide useful information on the response of the environment to various factors. FISHPASS is a complex ecological model that simulates the process of smolt outmigration in the Columbia River ecosystem. This process is dependent on several interactive factors that are poorly understood or highly variable. The FISHPASS model contains many assumptions about these factors and their interactions that can greatly affect the model output. Therefore, an analysis of the behavior and characteristics of the model was conducted to facilitate the application of FISHPASS to planning and management. Ideally, the model should be sufficiently defined such that there is no variability in the interpretation of the output.

The level of precision of the input parameters, or various interactions, determines the emphasis placed on the numerical value associated with the output. If the precision and interaction of individual parameters are not sufficiently documented, then the model output could be used to provide insight into the general trends in the whole system rather than to supply detailed information of each component of the system. The results may also provide an indication as to where more investigations or other actions may be required.

For any model development there are six major phases (Orlob, 1975):

Conceptualization;
Functional Representation;
Computational Representation;
Calibration;
Verification or Sensitivity; and
Documentation.

Most of the major phases listed above have been completed for the FISHPASS model. Chief among the previously ignored phases has been the verification or sensitivity phase.

The purpose of the sensitivity or verification phase of model development is to define the model's response to variations in input data, coefficients, boundary conditions, and the functional representations included in the model. The product of a sensitivity analysis may be a modified or improved model or simply a statement of the model's limitations in terms of the data and information supplied to it (i.e., an awareness of its precision).

In its May 16, 1986 meeting, the Mainstem Passage Advisory Committee (MPAC) formed an ad hoc work group to design a series of sensitivity tests of the FISHPASS model and to collate and analyze results of these tests. The primary objective of this task was to provide an indication of which parameters have the most impact on the model results. By identifying the most A sensitive parameters, model users might gain a better appreciation of tne risk and uncertainty associated with the model's results. Moreover, future research efforts could be directed to reduce the uncertainty of those input parameters in efforts to increase the precision of the model.

METHODS AND DESIGN OF STUDIES

The work group jointly developed a list of input parameters. This list was prioritized according to preliminary studies conducted on SURVIVAL, a spreadsheet fish passage model developed by the Columbia River Inter-Tribal Fish Commission (See July 3, 1986 memo to James Ruff from Stephanie Burchfield). At the July 26, 1986 MPAC meeting, the committee directed James Ruff to request the Corps of Engineers to conduct 20 model runs for the highest priority parameters (See August 6, 1986 letter to Colonel James R. Fry from James Ruff). After the initial model runs were completed, the ad hoc work group collated the data and presented it at the September 25, 1986 MPAC meeting.

The first set of model runs included two base conditions: one with no fish transportation and the other with transportation according to 1986 Fish Transportation Oversight Team (FTOT) guidelines. The base runs were identical in all other respects. The following conditions were held constant for all runs:

1) Fish input only above Lower Granite Dam
2) Monthly flows based on the 1932 water year (average)
3) Spill according to the Corps' 1985 Fish Passage Plan
4) All other parameters consistent with 1985-1986 MPAC values

(Spill and MPAC parameters are listed in Table 1)

In addition to the 2 base runs, 18 studies were conducted that tested the following five input parameters: 1) reservoir mortality, 2) transport mortality, 3) spill effectiveness, 4) fish guidance efficiency (FGE), and 5) turbine survival. Each of these parameters was tested with a high and a low value. The

values were mutually agreed upon by the ad hoc group, and while in some cases they represent measured ranges in data, not all of the values are based on measured data. These values are listed in Table 2, which also lists the titles of the initial 20 model runs.

Following review of the results of the initial model runs, the ad hoc work group recommended that additional runs be conducted in which parameters were varied by a given percent above and below the base run (MPAC) values. The parameters that were tested in the next set of model runs (32) included the five listed above as well as seasonal distribution and hourly distribution (See October 8, 1986 letter to Nicholas Dodge from James Ruff). Table 3 lists these runs and identifies the percent changes in each parameter.

After collating the results, the work group prepared tables and graphs to assist in the interpretation of the results.

Table 1. Values used for input parameters in FISHPASS model for MPAC sensitivity analyses.

Parameter/Dam	Lower Granite	Little Goose	Lower Monumental	Ice Harbor	McNary	John Day	The Dalles	Bonneville
Spill [1]	0	0	50%	25%	0	0 [2]	20%	37%
Spill Efficiency	1:1 at all dams except The Dalles							
Hourly Fish Dist.	Curve 1 at all dams for all species except curve 2 at Ice Harbor and curve 2 for the sluiceway at The Dalles.							
Turbine Survival	.85 at all dams							
Spill Survival	.98 at all dams							
Collection Survival	.99 at all dams							
Bypass Survival	.99 at all dams							
Transport Survival [3]	.95	.95	-	-	.99	-	-	-
Sluiceway Survival	-	-	-	.99	-	-	.99	-
Sluiceway Efficiency (all species)	-	-	-	.51	-	-	.40	-
Fish Guidance Efficiency								
Yearling Chinook	.50	.50	.03	.03	.74	.72	.03	.76 [4]
Subyearling Chinook	.50	.50	.03	.03	.38	.28	.03	.72
Steelhead	.74	.74	.03	.03	.76	.85	.03	.78

1. Spill is listed as an instantaneous percent of hourly flow during 12 hours.
2. At John Day, spill in June = 26% of instantaneous flow for 12 hours.
3. No "post transport" adjustment factor is applied to transported fish.
4. FGE at Bonneville I as shown. FGE at BVL II = .19, .24, and .35.

Table 2. Initial FISHPASS Model runs for MPAC Sensitivity Analyses.

Model Run Name	Parameter Varied	Value Used	Transport Status
Base Run A	none	-	no
Base Run B	none	-	yes
Reservoir Mortality low	Res.mort.	*	no
Reservoir Mortality low	Res.mort.	*	yes
Reservoir Mortality high	Res.mort.	#	no
Reservoir Mortality high	Res.mort.	#	yes
Transport Mortality low	Trans.mort.	1%	yes
Transport Mortality high	Trans.mort.	97%	yes
Spill Effectiveness low	Fish:spill	.45:1	no
Spill Effectiveness low	Fish:spill	.45:1	yes
Spill Effectiveness high	Fish:spill	2.35:1	no
Spill Effectiveness high	Fish:spill	2.35:1	yes
FGE low	FGE	$	no
FGE low	FGE	$	yes
FGE high	FGE	$	no
FGE high	FGE	$	yes
Turbine mortality low	Turb.mort.	7%	no
Turbine mortality low	Turb.mort.	7%	yes
Turbine mortality high	Turb.mort.	32%	no
Turbine mortality high	Turb.mort.	32%	yes

*MPAC reservoir survival curve was shifted upward by 20%.
#MPAC reservoir survival curve was shifted downward by 20%.

$The following FGE values (listed for yearling chinook/subyearling chinook/steelhead) were used at each dam for either the low or high runs (The values at Ice Harbor and The Dalles were intended to replace sluiceway values, but in actual runs the FGE values were replaced instead):

	% FGE Low	% FGE High
Lower Granite	33/33/60	75/50/74
Little Goose	33/33/60	75/50/74
Lower Monumental	0/0/0	3/3/3
Ice Harbor	23/18/23	51/51/51
McNary	60/34/65	83/62/80
John Day	60/20/65	72/60/80
The Dalles	25/15/25	40/40/40
Bonneville I	66/54/60	83/72/79
Bonneville II	19/20/19	68/55/63

Table 3. Second set of FISHPASS Model runs for MPAC Sensitivity Analyses. Each model run listed was tested with and without FTOT transport except the following parameters were tested only under the transport scenario: transport mortality, hourly fish distribution, and seasonal fish distribution.

Model Run Name	Parameter Varied	Value Used
Reservoir Mortality -10%	Res.mort.	*
Reservoir Mortality +10%	Res.mort.	#
Transport Mortality 30%	Trans.mort.	30%
Transport Mortality 60%	Trans.mort.	60%
Spill Effectiveness	Fish:spill	.75:1
Spill Effectiveness	Fish:spill	1.50:1
FGE -50% at each dam	FGE	$
FGE +50% at each dam	FGE	$
FGE -25% at each dam	FGE	$
FGE +25% at each dam	FGE	$
Turbine mortality =0%	Turb.mort.	0%
Turbine mortality =24%	Turb.mort.	24%
Hourly fish distribution	Hourly	+4 hrs
Hourly fish distribution	Hourly	-4 hrs
Hourly fish distribution	Hourly	+8 hrs
Hourly fish distribution	Hourly	-8 hrs
Seasonal fish distribution	yrlg/subyr/stlh (days)	+5/6/4
Seasonal fish distribution	yrlg/subyr/stlh (days)	-5/6/4
Seasonal fish distribution	yrlg/subyr/stlh (days)	+13/18/13
Seasonal fish distribution	yrlg/subyr/stlh (days)	-13/18/13

*MPAC reservoir survival curve was shifted upward by 10%.
#MPAC reservoir survival curve was shifted downward by 10%.

$The following FGE values (listed for yearling chinook/subyearling chinook/steelhead) were used at each dam (the values at Ice Harbor and The Dalles replaced sluiceway rather than FGE values):

	FGE-50%	FGE+50%	FGE-25%	FGE+25%
Lower Granite	25/25/37	75/75/100	38/38/56	63/63/93
Little Goose	25/25/37	75/75/100	38/38/56	63/63/93
Lower Monumental	2/2/2	5/5/5	2/2/2	4/4/4
Ice Harbor	26/26/26	77/77/77	38/38/38	64/64/64
McNary	38/19/38	100/57/100	56/29/57	92/48/95
John Day	36/10/43	100/30/100	54/15/64	90/25/100
The Dalles	20/20/20	60/60/60	30/30/30	50/50/50
Bonneville I	38/36/39	100/100/100	57/54/58	95/90/98
Bonneville II	19/24/35	19/24/35	19/24/35	19/24/35

RESULTS

The results of the FISHPASS modeling exercise for the no transport runs are tabulated in Tables 4 through 9 and in Tables 10 through 15 for the FTOT transport runs. Each value for system survival is assessed as a percent deviation from either base case A (no transport) or base case B (FTOT transport). The base cases use MPAC values (listed in Table 1) for all input parameters.

The slopes of the lines associated with the percent changes in system survival from the base cases were calculated in the following fashion: a regression line was drawn using the zero value of the base case and the two points closest to the base case for both reservoir mortality and FGE (for reasons further explained in subsequent sections); for turbine mortality all points on the graph were used. The slopes reported in Table 16 are the slopes of the regression lines and represent the average percent change in system survival for a one percent increase in the input parameter.

LIMITATIONS OF ANALYSIS

Careful consideration must be given to the interpretation of the results of this sensitivity analysis. The analysis is limited in its application by the constraints of the input parameters i.e., water year, input of Lower Granite fish only, spill regime and FTOT transport scenario. The 1932 water year represents an average water year and parameters which are affected by flow (e.g. amount of spill and reservoir mortality) could behave

differently under other water conditions. The input of fish only at Lower Granite causes maximum differences between the transport and no transport scenarios since almost all fish are removed at the Snake River collector projects leaving very few in-river migrants below Little Goose Dam. In addition, more error is associated with subyearling results since the Lower Granite input contains very few subyearling fish. Spill (according to the 1985 Corps fish passage plan) occurs only at Lower Monumental, Ice Harbor and The Dalles Dams in the spring and summer and at John Day Dam in the summer. Consequently, any changes in fish:spill ratios should be analyzed in terms of the dam survival at these dams. Likewise, the sensitivity of FGE is impacted by the level of bypass development modeled at each dam. For the purposes of these studies, bypass system development was assumed at its current status. If fully operational bypass systems were assumed for every dam, FGE would have been a more important factor in the sensitivity analysis. Finally, the results of the FTOT transport scenarios cannot be assumed to produce the same results as a full transport scenario.

RESERVOIR MORTALITY

The percent differences from either base A or B are plotted versus the percent difference from the MPAC reservoir mortality curve for yearling, subyearling and steelhead outmigrants (Figures 1-3). It should be noted that a decrease in reservoir mortality of 20% could translate to a reservoir survival greater than 100% at certain flows. To avoid this problem of "creating"

fish in a reservoir (i.e., reservoir survival values which exceed 100%), 100 percent reservoir survival may have to be used even before the full 20% decrease in reservoir mortality is achieved. Furthermore, plots of reservoir mortality versus percent difference from the base case in the no transport run are neither symmetrical nor linear.

Several conclusions can be drawn from these graphs:

1) The no transport scenario is characterized by a steeper slope than the FTOT scenario because of the larger number of fish exposed to reservoir mortality in the no transport scenario. (The negative slope means that a decrease in reservoir mortality actually results in an increase in survival).

2) Reservoir mortality is the most sensitive parameter in the model. (It should be noted that even the FTOT transport scenario, where very few fish are affected by reservoir mortality, provides slopes that are equal to those obtained in the FGE scenario).

3) The reservoir mortality sensitivities (slopes in Table 16) for different pool stocks relative to the FGE and turbine mortality sensitivities will approach the no transport results (even with transportation at upriver dams) as one considers stocks entering at dams progressively downstream from Lower Granite Dam.

4) Flow conditions would not have substantial impacts on the sensitivity results of reservoir mortality scenarios as altered in these studies. The reservoir survival curve agreed to by MPAC

was merely adjusted upward or downward by a set percent in these studies. Hence, the slopes of the regression lines for yearling, subyearling, and steelhead are not significantly different in the no transport scenarios despite changes in flow between the spring and summer seasons. A more comprehensive study would evaluate changes in reservoir mortality by varying the shape of the reservoir survival curve rather than simply shifting the curve.

FISH:SPILL

The changes in survival with changes in the fish:spill ratio cannot be analyzed using system survival changes since spill occurred at so few dams. Referring to the tables, it should be noted that changes in dam survival of greater than 5 percentage points are measured at Lower Monumental and up to 4 percentage points at The Dalles for a 135% increase in spill efficiency. The importance of the fish:spill ratio is a function of the dams at which spill occurs and the amount of spill at the dam. For instance, at John Day dam (where only summer spill occurs) only small variations in dam survival are measured.

FGE

The percent difference in system survival from either base case versus the percent difference from the MPAC values for FGE are plotted for the three different outmigrants (Figures 4-6). The y-axis is asymmetrical since at some dams a 50% increase in FGE from the MPAC value would cause the value to exceed 100% guidance. The change in FGE at Ice Harbor and The Dalles reflects changes in the sluiceway passage efficiency.

Additionally, Lower Monumental has no bypass system; therefore, small changes were made in the percent of fish voluntarily entering the gatewell orifices. Under the FTOT transport scenarios for Lower Granite fish, the slopes associated with the lines for the three groups of outmigrants are approximately equal to the slopes for reservoir mortality and turbine survival. Under no transport the FGE sensitivity for system survival is less than that of both reservoir mortality and turbine survival.

TURBINE SURVIVAL

The percent difference in system survival from the base case versus the percent difference from the MPAC value for turbine survival is plotted for each group of outmigrants (Figures 7-9). The asymmetry of the y - axis is a function of the compounding of the benefits of increasing turbine survival. If more fish survive through an upriver dam then more will be present at the next dam. If these increases in survival occur through the entire system, then there is the probability that deviation from the base case will occur more rapidly than for decreases in FGE.

The slope for turbine survival is approximately the same as the other scenarios in the FTOT transport scenario and a little less than half the value of the no transport reservoir mortality scenario. For in-river migrants it appears to be an important parameter.

TRANSPORTATION MORTALITY

Transportation mortality was not evaluated in the same fashion as the other parameters because: 1) unlike the other parameters, it was not increased a set percentage above or below

the base case; and, 2) it could only be applied to the FTOT transport runs. However, it can be noted from Figure 10 that an absolute value for system survival can be modified substantially by the transport mortality value that is chosen.

HOURLY AND DAILY FISH DISTRIBUTION

The hourly and daily variations in fish distribution yielded very small changes in system survival in the FTOT transport runs. In addition, the changes in dam survival were also very small. Therefore, these runs were not repeated in the no transport scenario, even though we would expect the sensitivity of these parameters to be more pronounced in the no transport scenario.

CONCLUSIONS

The ad hoc work group did not by any means conduct a complete sensitivity analysis. In order to address all the logical combinations of the high and low values of at least twelve parameters would require more than 4000 runs (Tanovan, August 25, 1986). Since this approach was not practical in this forum, certain key parameters in the model were identified and tested. The work group did not address any interactions that might occur among these variables.

Attached is an August 25, 1986 memorandum from Bolyvong Tanovan. It proposes to consider the variables in FISHPASS as probability distributions rather than parameter values. As more data for each parameter becomes available, this approach would be recommended for modeling purposes. However, at this time the work group agrees that this approach to parameterization would assign the model variables a level of precision which is not justified.

References:

Orlob, G.T., 1975. In C.S. Russel (ed.), Ecological Modeling, John Hopkins Press, 394 pp.

Table 4. Dam and system survival values for the yearling outmigrant no transport FISHPASS runs.

[illegible] FISHPASS SENSITIVITY [illegible]

[illegible] TRANSPORT SCENARIOS

YEARLING CHINOOK	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN A	0.915	0.916	0.903	0.939	0.952	0.946	0.921	0.960	0.199
RES MORT + 20%	0.915	0.916	0.903	0.939	0.952	0.946	0.921	0.960	0.042
RES MORT - 10%	0.915	0.916	0.903	0.939	0.951	0.946	0.919	0.960	0.368
RES MORT + 10%	0.915	0.916	0.903	0.939	0.952	0.946	0.919	0.960	0.095
RES MORT - 20%	0.915	0.916	0.903	0.939	0.951	0.946	0.920	0.960	0.487
FISH:SPILL .45:1	0.915	0.915	0.876	0.933	0.949	0.945	0.903	0.960	0.187
FISH:SPILL .75:1	0.915	0.915	0.891	0.932	0.950	0.945	0.919	0.960	0.194
FISH:SPILL 1.5:1	0.916	0.916	0.927	0.935	0.954	0.947	0.919	0.960	0.204
FISH:SPILL 2.35:1	0.916	0.916	0.932	0.954	0.956	0.949	0.935	0.960	0.223
FGE LOW	0.893	0.894	0.901	0.950	0.936	0.931	0.935	0.954	0.187
FGE HIGH	0.948	0.948	0.903	0.964	0.961	0.946	0.945	0.967	0.229
FGE + 25%	0.932	0.932	0.904	0.949	0.971	0.968	0.924	0.973	0.222
FGE + 50%	0.948	0.948	0.904	0.964	0.980	0.980	0.929	0.976	0.240
FGE - 25%	0.899	0.899	0.902	0.920	0.931	0.924	0.914	0.948	0.176
FGE - 50%	0.883	0.883	0.903	0.907	0.912	0.902	0.910	0.936	0.157
TURB MORT = 0%	0.990	0.990	0.992	0.993	0.984	0.985	0.992	0.983	0.321
TURB MORT = 7%	0.955	0.955	0.950	0.971	0.969	0.967	0.960	0.972	0.259
TURB MORT = 24%	0.871	0.871	0.850	0.900	0.932	0.922	0.876	0.947	0.145
TURB MORT = 32%	0.831	0.831	0.802	0.873	0.914	0.902	0.859	0.935	0.116

Table 5. Percent difference from Base Run A for yearling outmigrant dam and system survival values.

NPAC FISHPASS SENSITIVITY RUNS

PERCENT DIFFERENCE FROM BASE RUN A

YEARLING CHINOOK	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SYSTEM SURVIVAL
BASE RUN A									
RES MORT + 20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-76.89%
RES MORT - 10%	0.00%	0.00%	0.00%	-0.43%	-0.11%	0.00%	-0.22%	0.00%	84.92%
RES MORT + 10%	0.00%	0.00%	0.00%	-0.43%	0.00%	0.00%	-0.22%	0.00%	-52.26%
RES MORT - 20%	0.00%	0.00%	0.00%	0.00%	-0.11%	0.00%	-0.11%	0.00%	144.73%
FISH:SPILL .45:1	0.00%	-0.11%	-2.99%	-0.64%	-0.32%	-0.11%	-1.95%	0.00%	-6.05%
FISH:SPILL .75:1	0.00%	-0.11%	-1.33%	-0.75%	-0.21%	-0.11%	-0.22%	0.00%	-2.51%
FISH:SPILL 1.5:1	0.11%	0.00%	2.66%	-0.43%	0.21%	0.11%	-0.22%	0.00%	2.51%
FISH:SPILL 2.25:1	0.11%	0.00%	3.43%	1.60%	0.42%	0.32%	3.69%	0.00%	12.04%
FGE LOW	-2.40%	-2.40%	-0.22%	1.17%	-1.68%	-1.59%	1.52%	-0.63%	-6.07%
FGE HIGH	3.61%	3.49%	0.00%	2.66%	0.95%	0.00%	2.61%	0.73%	15.08%
FGE + 25%	1.86%	1.75%	0.11%	1.06%	2.09%	2.32%	0.33%	1.35%	11.56%
FGE + 50%	3.61%	3.49%	0.11%	2.66%	2.94%	3.39%	0.87%	1.67%	30.60%
FGE - 25%	-1.75%	-1.86%	-0.11%	-2.02%	-2.21%	-2.33%	-0.76%	-1.25%	-11.56%
FGE - 50%	-3.50%	-3.60%	0.00%	-3.41%	-4.20%	-4.65%	-1.19%	-2.50%	-21.11%
TURB MORT = 0%	8.20%	8.08%	9.84%	5.75%	3.36%	4.12%	7.71%	2.48%	61.31%
TURB MORT = 7%	4.57%	4.26%	5.20%	3.41%	1.79%	2.22%	4.22%	1.25%	30.15%
TURB MORT = 24%	-4.81%	-4.91%	-5.87%	-4.15%	-2.10%	-2.54%	-4.89%	-1.22%	-27.14%
TURB MORT = 32%	-9.18%	-9.28%	-11.18%	-7.05%	-3.99%	-4.65%	-8.90%	-2.60%	-44.72%

Table 6. Dam and system survival values for the subyearling outmigrant no transport FISHPASS runs.

NPAC FISHPASS SENSITIVITY RUNS

DAM SURVIVAL

SUBYEARLING CHINOOK	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SYSTEM SURVIVAL
BASE RUN A	0.915	0.915	0.904	0.938	0.915	0.882	0.925	0.957	0.109
RES MORT + 20%	0.915	0.915	0.904	0.938	0.915	0.882	0.925	0.957	0.023
RES MORT - 10%	0.915	0.915	0.904	0.933	0.915	0.882	0.925	0.957	0.203
RES MORT + 10%	0.915	0.915	0.904	0.933	0.915	0.882	0.925	0.957	0.052
RES MORT - 20%	0.915	0.915	0.904	0.938	0.914	0.881	0.925	0.956	0.292
FISH:SPILL .45:1	0.915	0.915	0.877	0.932	0.906	0.879	0.905	0.957	0.101
FISH:SPILL .75:1	0.915	0.915	0.892	0.931	0.911	0.880	0.923	0.957	0.106
FISH:SPILL 1.5:1	0.915	0.915	0.930	0.933	0.923	0.885	0.923	0.957	0.112
FISH:SPILL 2.25:1	0.915	0.915	0.935	0.931	0.930	0.889	0.963	0.957	0.125
FGE LOW	0.893	0.893	0.902	0.944	0.911	0.882	0.932	0.944	0.103
FGE HIGH	0.915	0.915	0.904	0.964	0.940	0.931	0.948	0.958	0.124
FGE + 25%	0.932	0.932	0.905	0.948	0.925	0.888	0.928	0.969	0.118
FGE + 50%	0.948	0.948	0.905	0.963	0.935	0.894	0.932	0.976	0.128
FGE - 25%	0.899	0.899	0.904	0.918	0.905	0.876	0.919	0.944	0.099
FGE - 50%	0.883	0.883	0.903	0.904	0.895	0.869	0.914	0.932	0.091
TURB MORT = 0%	0.990	0.990	0.992	0.993	0.990	0.995	0.991	0.984	0.198
TURB MORT = 7%	0.955	0.955	0.951	0.970	0.955	0.942	0.962	0.971	0.151
TURB MORT = 24%	0.870	0.870	0.852	0.897	0.870	0.814	0.893	0.941	0.073
TURB MORT = 32%	0.830	0.830	0.805	0.869	0.830	0.754	0.848	0.927	0.051

Table 7. Percent difference from Base Run A for subyearling outmigrant dam and system survival values.

NPAC FISHPASS SENSITIVITY RUNS

PERCENT DIFFERENCE FROM BASE RUN A

SUBYEARLING CHINOOK	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SYSTEM SURVIVAL
BASE RUN A									
RES MORT + 20 %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-78.90%
RES MORT - 10%	0.00%	0.00%	0.00%	-0.53%	0.00%	0.00%	-0.22%	0.00%	86.24%
RES MORT + 10%	0.00%	0.00%	0.00%	-0.53%	0.00%	0.00%	-0.22%	0.00%	-52.29%
RES MORT - 20%	0.00%	0.00%	0.00%	0.00%	-0.11%	-0.11%	0.00%	-0.10%	167.89%
FISH:SPILL .45:1	0.00%	0.00%	-2.99%	-0.64%	-0.98%	-0.34%	-2.16%	0.00%	- 7.34%
FISH:SPILL .75:1	0.00%	0.00%	-1.33%	-0.75%	-0.44%	-0.22%	-0.22%	0.00%	- 2.75%
FISH:SPILL 1.5:1	0.00%	0.00%	2.88%	-0.53%	0.87%	0.34%	-0.22%	0.00%	2.75%
FISH:SPILL 2.35:1	0.00%	0.00%	5.64%	1.39%	1.64%	0.79%	4.11%	0.00%	14.68%
FGE LOW	-2.40%	-2.40%	-0.22%	0.85%	-0.44%	0.00%	0.76%	-1.36%	- 5.50%
FGE HIGH	0.00%	0.00%	0.00%	2.77%	2.73%	5.56%	2.49%	0.10%	15.76%
FGE + 25%	1.86%	1.86%	0.11%	1.07%	1.09%	0.68%	0.32%	1.25%	8.26%
FGE + 50%	3.61%	3.61%	0.11%	2.67%	2.19%	1.36%	0.76%	1.99%	17.43%
FGE - 25%	-1.75%	-1.75%	0.00%	-2.13%	-1.09%	-0.68%	-0.65%	-1.36%	-9.17%
FGE - 50%	-3.50%	-3.50%	-0.11%	-3.62%	-2.19%	-1.47%	-1.19%	-2.61%	-16.51%
TURB MORT = 0%	8.20%	8.20%	9.75%	5.86%	8.20%	12.81%	7.14%	2.82%	81.65%
TURB MORT = 7%	4.37%	4.37%	5.22%	3.41%	4.37%	6.86%	4.00%	1.46%	38.55%
TURB MORT = 24%	-4.92%	-4.92%	-5.75%	-4.37%	-4.92%	-7.71%	-4.54%	-1.67%	-33.03%
TURB MORT = 32%	-9.29%	-9.29%	-10.95%	3.30%	-9.29%	-14.51%	-8.32%	-3.13%	-52.21%

Table 8. Dam and system survival values for steelhead outmigrant no transport FISHPASS runs.

NPAC FISHPASS SENSITIVITY RUNS

DAM SURVIVAL

STEELHEAD	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SYSTEM SURVIVAL
BASE RUN A	0.947	0.947	0.906	0.941	0.956	0.963	0.927	0.963	0.216
RES MORT + 20%	0.947	0.947	0.906	0.941	0.956	0.963	0.927	0.963	0.045
RES MORT - 10%	0.947	0.947	0.906	0.936	0.956	0.963	0.925	0.963	0.402
RES MORT + 10%	0.947	0.947	0.906	0.937	0.956	0.963	0.925	0.963	0.103
RES MORT - 20 %	0.947	0.947	0.906	0.941	0.955	0.963	0.927	0.963	0.551
FISH:SPILL .45:1	0.947	0.947	0.877	0.934	0.952	0.962	0.906	0.963	0.202
FISH:SPILL .75:1	0.947	0.947	0.893	0.933	0.954	0.962	0.925	0.963	0.211
FISH:SPILL 1.5:1	0.947	0.948	0.932	0.937	0.959	0.964	0.925	0.963	0.222
FISH:SPILL 2.35:1	0.948	0.949	0.957	0.955	0.960	0.966	0.965	0.963	0.244
FGE LOW	0.929	0.930	0.903	0.931	0.944	0.940	0.940	0.931	0.203
FGE HIGH	0.947	0.947	0.906	0.965	0.960	0.957	0.949	0.965	0.227
FGE + 25%	0.971	0.971	0.906	0.951	0.975	0.980	0.929	0.975	0.243
FGE + 50%	0.980	0.980	0.907	0.965	0.980	0.980	0.934	0.977	0.254
FGE - 25%	0.924	0.924	0.905	0.922	0.936	0.939	0.920	0.951	0.189
FGE - 50%	0.900	0.901	0.905	0.909	0.917	0.914	0.916	0.939	0.165
TURB MORT = 0%	0.985	0.985	0.991	0.993	0.984	0.985	0.991	0.983	0.311
TURB MORT = 7%	0.967	0.967	0.951	0.971	0.971	0.973	0.962	0.973	0.264
TURB MORT = 24%	0.924	0.925	0.854	0.903	0.939	0.931	0.885	0.931	0.171
TURB MORT = 32%	0.904	0.904	0.808	0.877	0.924	0.941	0.852	0.941	0.139

Table 9. Percent difference from Base Run A for steelhead outmigrant dam and system survival values.

MPAC FISHPASS SENSITIVITY RUNS

STEELHEAD	PERCENT DIFFERENCE FROM BASE RUN A								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN A									
RES MORT + 20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-79.17%
RES MORT - 10%	0.00%	0.00%	0.00%	-0.55%	0.00%	0.00%	-0.22%	0.00%	86.57%
RES MORT + 10%	0.00%	0.00%	0.00%	-0.43%	0.00%	0.00%	-0.22%	0.00%	-52.31%
RES MORT - 20%	0.00%	0.00%	0.00%	0.00%	-0.10%	0.00%	0.00%	0.00%	145.85%
FISH:SPILL .45:1	0.00%	0.00%	-3.20%	-0.74%	-0.42%	-0.10%	-2.27%	0.00%	- 6.48%
FISH:SPILL .75:1	0.00%	0.00%	-1.43%	-0.85%	-0.21%	-0.10%	-0.22%	0.00%	- 2.31%
FISH:SPILL 1.5:1	0.00%	0.11%	2.87%	-0.43%	0.31%	0.10%	-0.22%	0.00%	2.78%
FISH:SPILL 2.25:1	0.11%	0.21%	5.63%	1.49%	0.42%	0.31%	4.10%	0.00%	12.96%
FGE LOW	-1.90%	-1.60%	-0.33%	1.06%	-1.26%	-2.39%	1.40%	-1.25%	- 6.02%
FGE HIGH	0.00%	0.00%	0.00%	2.55%	0.42%	-0.42%	2.57%	0.21%	5.09%
FGE + 25%	2.53%	2.53%	0.00%	1.06%	1.99%	1.77%	0.22%	1.25%	12.50%
FGE + 50%	3.48%	3.48%	0.11%	2.55%	2.51%	1.77%	0.76%	1.45%	17.59%
FGE - 25%	-2.43%	-2.43%	-0.11%	-2.02%	-2.09%	-2.49%	-0.76%	-1.25%	-12.50%
FGE - 50%	-4.96%	-4.86%	-0.11%	-3.40%	-4.08%	-5.07%	-1.19%	-2.49%	-25.61%
TURB MORT = 0%	4.01%	4.01%	9.38%	5.55%	2.93%	2.08%	6.90%	2.08%	42.98%
TURB MORT = 7%	2.11%	2.11%	4.97%	3.19%	1.57%	1.04%	3.78%	1.04%	22.22%
TURB MORT = 24%	-2.43%	-2.32%	-5.74%	-4.04%	-1.78%	-1.25%	-4.53%	-1.25%	-20.83%
TURB MORT = 32%	-4.54%	-4.54%	-10.82%	-6.80%	-3.35%	-2.28%	-8.09%	-2.28%	-35.65%

Table 13. Dam and system survival values for the yearling outmigrant FTOT transport FISHPASS runs.

MPAC FISHPASS SENSITIVITY RUNS

FTOT TRANSPORT SCENARIOS

YEARLING CHINOOK	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN B	0.896	0.898	0.903	0.939	0.951	0.947	0.923	0.960	0.687
RES MORT +20%	0.896	0.898	0.903	0.939	0.951	0.947	0.923	0.960	0.610
RES MORT - 10%	0.896	0.898	0.903	0.939	0.951	0.947	0.921	0.960	0.744
RES MORT + 10%	0.896	0.898	0.903	0.939	0.951	0.947	0.921	0.960	0.643
RES MORT -20%	0.896	0.898	0.903	0.939	0.951	0.947	0.922	0.960	0.779
FISH:SPILL .45:1	0.895	0.898	0.876	0.933	0.949	0.945	0.904	0.960	0.686
FISH:SPILL .75:1	0.896	0.898	0.891	0.932	0.950	0.946	0.921	0.960	0.687
FISH:SPILL 1.5:1	0.896	0.899	0.928	0.941	0.954	0.948	0.952	0.960	0.688
FISH:SPILL 2.25:1	0.896	0.900	0.953	0.954	0.956	0.951	0.958	0.960	0.689
FGE LOW	0.880	0.882	0.901	0.950	0.936	0.932	0.936	0.956	0.551
FGE HIGH	0.918	0.922	0.904	0.965	0.961	0.947	0.947	0.967	0.839
FGE + 25%	0.907	0.911	0.904	0.950	0.971	0.968	0.926	0.973	0.776
FGE + 50%	0.918	0.922	0.905	0.964	0.980	0.980	0.931	0.976	0.841
FGE - 25%	0.885	0.886	0.903	0.920	0.931	0.925	0.916	0.948	0.581
FGE - 50%	0.873	0.875	0.902	0.907	0.912	0.903	0.910	0.936	0.454
TURB MORT = 0%	0.970	0.973	0.992	0.993	0.984	0.985	0.992	0.983	0.763
TURB MORT = 7%	0.936	0.938	0.950	0.971	0.969	0.967	0.961	0.972	0.725
TURB MORT = 24%	0.851	0.854	0.850	0.900	0.922	0.925	0.879	0.947	0.650
TURB MORT = 32%	0.811	0.814	0.803	0.873	0.914	0.903	0.845	0.935	0.623
TRANS MORT = 1%	0.915	0.916	0.903	0.939	0.951	0.947	0.923	0.960	0.710
TRANS MORT = 20%	0.773	0.791	0.903	0.939	0.826	0.947	0.921	0.960	0.512
TRANS MORT = 60%	0.625	0.661	0.903	0.939	0.697	0.947	0.921	0.960	0.304
TRANS MORT = 97%	0.443	0.501	0.903	0.939	0.597	0.947	0.923	0.960	0.046
FISH DIST + 4 HR	0.896	0.898	0.885	0.932	0.949	0.945	0.915	0.955	0.686
FISH DIST + 8 HR	0.896	0.898	0.885	0.931	0.949	0.945	0.906	0.958	0.686
FISH DIST - 4 HR	0.896	0.898	0.898	0.934	0.951	0.946	0.914	0.961	0.687
FISH DIST - 8 HR	0.895	0.898	0.869	0.930	0.948	0.944	0.906	0.950	0.686
FISH DIST + 5 DAY	0.896	0.899	0.905	0.936	0.952	0.947	0.924	0.961	0.686
FISH DIST - 5 DAY	0.895	0.897	0.900	0.934	0.951	0.946	0.917	0.960	0.688
FISH DIST + 10 DAY	0.896	0.902	0.906	0.936	0.954	0.950	0.925	0.961	0.688
FISH DIST - 10 DAY	0.895	0.898	0.890	0.932	0.949	0.945	0.908	0.958	0.685

Table 11. Percent difference from Base Run B for yearling outmigrant dam and system survival values.

MPAC FISHPASS SENSITIVITY RUNS

PERCENT DIFFERENCE FROM BASE RUN B

YEARLING CHINOOK	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SYSTEM SURVIVAL
BASE RUN B									
RES MORT +20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-11.21%
RES MORT - 10%	0.00%	0.00%	0.00%	-0.43%	0.00%	0.00%	-0.22%	0.00%	8.30%
RES MORT + 10%	0.00%	0.00%	0.00%	-0.43%	0.00%	0.00%	-0.22%	0.00%	-6.40%
RES MORT -20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-0.11%	0.00%	13.39%
FISH:SPILL .45:1	-0.11%	0.00%	-2.99%	-0.64%	-0.21%	-0.21%	-2.06%	0.00%	-0.15%
FISH:SPILL .75:1	0.00%	0.00%	-1.35%	-0.75%	-0.11%	-0.11%	-0.22%	0.00%	0.00%
FISH:SPILL 1.5:1	0.00%	0.11%	2.77%	0.21%	0.32%	0.11%	3.14%	0.00%	0.15%
FISH:SPILL 2.35:1	0.00%	0.22%	3.54%	1.60%	0.53%	0.42%	3.79%	0.00%	0.29%
FGE LOW	-1.79%	-1.78%	-0.22%	1.17%	-1.58%	-1.58%	1.41%	-0.63%	-19.80%
FGE HIGH	2.46%	2.67%	0.11%	2.77%	1.05%	0.00%	2.60%	0.75%	22.13%
FGE + 25%	1.25%	1.45%	0.11%	1.17%	2.10%	2.22%	0.33%	1.05%	12.95%
FGE + 50%	2.46%	2.67%	0.22%	2.66%	3.05%	3.48%	0.87%	1.67%	22.42%
FGE - 25%	-1.25%	-1.34%	0.00%	-2.02%	-2.10%	-2.32%	-0.76%	-1.25%	-15.40%
FGE - 50%	-2.57%	-2.56%	-0.11%	-3.41%	-4.10%	-4.65%	-1.41%	-2.50%	-33.92%
TURB MORT = 0%	8.26%	8.35%	9.86%	5.75%	3.47%	4.01%	7.46%	2.40%	11.06%
TURB MORT = 7%	4.46%	4.45%	5.20%	3.41%	1.89%	2.11%	4.12%	1.25%	5.65%
TURB MORT = 24%	-5.02%	-4.90%	-5.67%	-4.15%	-2.00%	-2.53%	-4.77%	-1.55%	-5.39%
TURB MORT = 32%	-9.49%	-9.35%	-11.07%	-7.03%	-3.89%	-4.65%	-8.67%	-2.60%	-9.32%
TRANS MORT = 1%	2.12%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.76%
TRANS MORT = 30%	-13.73%	-11.92%	0.00%	-0.43%	-13.14%	0.00%	-0.22%	0.00%	-25.47%
TRANS MORT = 60%	-30.25%	-26.39%	0.00%	-0.43%	-26.71%	0.00%	-0.22%	0.00%	-53.75%
TRANS MORT = 97%	-50.56%	-44.21%	0.00%	0.00%	-43.50%	0.00%	0.00%	0.00%	-90.01%
FISH DIST + 4 MR	0.00%	0.00%	-1.99%	-0.75%	-0.21%	-0.21%	-0.87%	-0.73%	-0.15%
FISH DIST + 8 MR	0.00%	0.00%	-2.21%	-0.85%	-0.21%	-0.21%	-1.84%	-0.21%	-0.15%
FISH DIST - 4 MR	0.00%	0.00%	-0.55%	-0.53%	0.00%	-0.11%	-0.98%	0.10%	0.00%
FISH DIST - 8 MR	-0.11%	0.00%	-2.77%	-0.96%	-0.32%	-0.32%	-1.84%	-1.04%	-0.15%
FISH DIST + 5 DAY	0.00%	0.11%	0.22%	-0.32%	0.11%	0.00%	0.11%	0.10%	-0.15%
FISH DIST - 5 DAY	-0.11%	-0.11%	-0.33%	-0.53%	0.00%	-0.11%	-0.65%	0.00%	0.15%
FISH DIST + 10 DAY	0.22%	0.45%	0.33%	-0.32%	0.32%	0.32%	0.22%	0.10%	-2.77%
FISH DIST - 10 DAY	-0.11%	0.00%	-1.44%	-0.75%	-0.21%	-0.21%	-1.62%	-0.21%	-0.59%

Table 12. Dam and system survival values for the subyearling outmigrant FTGT transport FISHPASS runs.

MPAC FISHPASS SENSITIVITY RUNS

FTGT TRANSPORT SCENARIOS

SUBYEARLING CHINOOK	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN B	0.895	0.896	0.904	0.938	0.915	0.883	0.926	0.957	0.644
RES MORT +20%	0.895	0.896	0.904	0.938	0.915	0.883	0.926	0.957	0.594
RES MORT - 10%	0.895	0.896	0.904	0.933	0.915	0.883	0.924	0.957	0.680
RES MORT + 10%	0.895	0.896	0.904	0.933	0.915	0.883	0.924	0.957	0.616
RES MORT -20%	0.895	0.895	0.904	0.938	0.914	0.883	0.925	0.957	0.712
FISH:SPILL .45:1	0.895	0.895	0.877	0.932	0.906	0.879	0.905	0.957	0.644
FISH:SPILL .75:1	0.895	0.895	0.892	0.931	0.911	0.881	0.924	0.957	0.644
FISH:SPILL 1.5:1	0.895	0.896	0.930	0.939	0.923	0.887	0.957	0.957	0.645
FISH:SPILL 2.35:1	0.896	0.896	0.935	0.951	0.921	0.893	0.964	0.957	0.646
FGE LOW	0.880	0.880	0.902	0.946	0.911	0.883	0.935	0.945	0.492
FGE HIGH	0.895	0.896	0.904	0.964	0.940	0.932	0.948	0.959	0.655
FGE + 25%	0.907	0.907	0.905	0.946	0.926	0.890	0.928	0.969	0.724
FGE + 50%	0.918	0.918	0.906	0.963	0.935	0.896	0.933	0.976	0.821
FGE - 25%	0.884	0.884	0.904	0.918	0.905	0.877	0.919	0.945	0.551
FGE - 50%	0.873	0.873	0.903	0.904	0.895	0.870	0.914	0.932	0.399
TURB MORT = 0%	0.970	0.970	0.952	0.993	0.970	0.995	0.991	0.984	0.699
TURB MORT = 7%	0.935	0.935	0.931	0.970	0.955	0.943	0.962	0.971	0.672
TURB MORT = 24%	0.850	0.851	0.852	0.898	0.870	0.816	0.855	0.941	0.616
TURB MORT = 32%	0.810	0.811	0.805	0.870	0.831	0.758	0.949	0.928	0.598
TRANS MORT = 1%	0.915	0.915	0.904	0.938	0.915	0.883	0.926	0.957	0.670
TRANS MORT = 30%	0.772	0.772	0.904	0.938	0.915	0.883	0.924	0.957	0.479
TRANS MORT = 60%	0.623	0.624	0.904	0.938	0.748	0.883	0.924	0.957	0.251
TRANS MORT = 97%	0.441	0.442	0.904	0.938	0.843	0.883	0.926	0.957	0.036
FISH DIST + 4 MR	0.895	0.895	0.885	0.931	0.909	0.880	0.917	0.950	0.644
FISH DIST + 8 MR	0.895	0.895	0.884	0.930	0.909	0.880	0.908	0.955	0.644
FISH DIST - 4 MR	0.895	0.895	0.899	0.933	0.914	0.882	0.917	0.958	0.644
FISH DIST - 8 MR	0.895	0.895	0.870	0.929	0.904	0.878	0.907	0.947	0.644
FISH DIST + 5 DAY	0.895	0.895	0.903	0.933	0.910	0.881	0.922	0.956	0.639
FISH DIST - 5 DAY	0.897	0.897	0.905	0.935	0.919	0.887	0.935	0.958	0.657
FISH DIST + 10 DAY	0.895	0.895	0.902	0.929	0.902	0.877	0.907	0.950	0.618
FISH DIST - 10 DAY	0.897	0.898	0.906	0.935	0.901	0.894	0.935	0.959	0.652

Table 13. Percent difference from Base Run B for subyearling outmigrant dam and system survival values.

NPAC FISHPASS SENSITIVITY RUNS

PERCENT DIFFERENCE FROM BASE RUN B

SUBYEARLING CHINOOK	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SYSTEM SURVIVAL
BASE RUN B									
RES MORT +20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-7.76%
RES MORT - 10%	0.00%	0.00%	0.00%	-0.53%	0.00%	0.00%	-0.22%	0.00%	5.59%
RES MORT + 10%	0.00%	0.00%	0.00%	-0.53%	0.00%	0.00%	-0.22%	0.00%	-4.35%
RES MORT -20%	0.00%	-0.11%	0.00%	0.00%	-0.11%	0.00%	-0.11%	0.00%	10.56%
FISH:SPILL .45:1	0.00%	-0.11%	-2.99%	-0.44%	-0.98%	-0.45%	-2.27%	0.00%	0.00%
FISH:SPILL .75:1	0.00%	-0.11%	-1.33%	-0.75%	-0.44%	-0.23%	-0.22%	0.00%	0.00%
FISH:SPILL 1.5:1	0.00%	0.00%	2.89%	0.11%	0.87%	0.45%	3.25%	0.00%	0.16%
FISH:SPILL 2.25:1	0.11%	0.00%	5.64%	1.39%	1.75%	1.13%	4.10%	0.00%	0.31%
FGE LOW	-1.69%	-1.79%	-0.22%	0.85%	-0.44%	0.00%	0.76%	-1.25%	-23.60%
FGE HIGH	0.00%	0.00%	0.00%	2.77%	2.73%	5.55%	2.38%	0.21%	1.46%
FGE + 25%	1.34%	1.22%	0.11%	1.07%	1.20%	0.79%	0.22%	1.25%	15.53%
FGE + 50%	2.57%	2.46%	0.22%	2.67%	2.19%	1.47%	0.76%	1.99%	27.48%
FGE - 25%	-1.23%	-1.34%	0.00%	-2.13%	-1.09%	-0.68%	-0.76%	-1.25%	-17.55%
FGE - 50%	-2.46%	-2.57%	-0.11%	-3.62%	-2.19%	-1.47%	-1.30%	-2.41%	-38.04%
TURB MORT = 0%	8.36%	8.26%	9.73%	5.86%	6.20%	12.46%	7.02%	2.82%	8.54%
TURB MORT = 7%	4.47%	4.35%	5.20%	3.41%	4.37%	6.90%	3.89%	1.46%	4.35%
TURB MORT = 24%	-5.03%	-5.02%	-5.75%	-4.26%	-4.92%	-7.59%	-4.64%	-1.67%	-4.04%
TURB MORT = 32%	-9.50%	-9.49%	-10.95%	-7.25%	-9.18%	-14.16%	-8.32%	-3.03%	-7.14%
TRANS MORT = 1%	2.02%	2.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.04%
TRANS MORT = 30%	-13.74%	-13.84%	0.00%	-0.53%	-8.96%	0.00%	-0.22%	0.00%	-25.62%
TRANS MORT = 60%	-30.39%	-30.36%	0.00%	-0.53%	-16.25%	0.00%	-0.22%	0.00%	-56.07%
TRANS MORT = 97%	-50.73%	-50.67%	0.00%	0.00%	-29.73%	0.00%	0.00%	0.00%	-94.41%
FISH DIST + 4 HR	0.00%	-0.11%	-2.10%	-0.75%	-0.66%	-0.34%	-0.97%	-0.73%	0.00%
FISH DIST + 8 HR	0.00%	-0.11%	-2.21%	-0.85%	-0.66%	-0.34%	-1.94%	-0.21%	0.00%
FISH DIST - 4 HR	0.00%	-0.11%	-0.53%	-0.53%	-0.11%	-0.11%	-0.97%	0.10%	0.00%
FISH DIST - 8 HR	0.00%	-0.11%	-3.76%	-0.96%	-1.20%	-0.57%	-2.05%	-1.04%	0.00%
FISH DIST + 5 DAY	0.00%	-0.11%	-0.11%	-0.53%	-0.55%	-0.23%	-0.43%	-0.10%	-0.78%
FISH DIST - 5 DAY	0.22%	0.11%	0.11%	-0.32%	0.44%	0.45%	-0.11%	0.10%	2.02%
FISH DIST + 10 DAY	0.00%	-0.11%	-1.33%	-0.96%	-1.42%	-0.68%	-2.05%	-0.73%	-4.04%
FISH DIST - 10 DAY	0.22%	0.22%	0.22%	-0.32%	1.75%	1.25%	-0.11%	0.21%	5.90%

Table 14. Dam and system survival values for steelhead outmigrant FTDT transport FISHPASS runs.

NPAC FISHPASS SENSITIVITY RUNS

FTDT TRANSPORT SCENARIOS

STEELHEAD	DAM SURVIVAL								SYSTEM
	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SURVIVAL
BASE RUN B	0.918	0.921	0.906	0.942	0.957	0.965	0.927	0.964	0.837
RES MORT +20%	0.918	0.921	0.906	0.942	0.957	0.965	0.927	0.964	0.795
RES MORT - 10%	0.918	0.921	0.906	0.937	0.957	0.965	0.925	0.964	0.864
RES MORT + 10%	0.918	0.921	0.906	0.937	0.957	0.965	0.925	0.964	0.815
RES MORT -20%	0.918	0.920	0.906	0.942	0.957	0.965	0.927	0.964	0.878
FISH:SPILL .45:1	0.918	0.919	0.877	0.934	0.952	0.962	0.906	0.963	0.842
FISH:SPILL .75:1	0.918	0.920	0.893	0.934	0.955	0.963	0.925	0.963	0.840
FISH:SPILL 1.5:1	0.919	0.922	0.932	0.945	0.963	0.967	0.960	0.964	0.832
FISH:SPILL 2.25:1	0.920	0.926	0.958	0.956	0.966	0.971	0.966	0.964	0.824
FGE LOW	0.906	0.908	0.903	0.952	0.946	0.963	0.940	0.952	0.760
FGE HIGH	0.918	0.921	0.906	0.966	0.961	0.959	0.949	0.966	0.839
FGE + 25%	0.925	0.929	0.906	0.953	0.976	0.980	0.930	0.975	0.914
FGE + 50%	0.941	0.949	0.907	0.967	0.980	0.980	0.934	0.975	0.933
FGE - 25%	0.902	0.904	0.905	0.923	0.938	0.941	0.921	0.952	0.728
FGE - 50%	0.886	0.897	0.905	0.910	0.918	0.916	0.916	0.940	0.578
TURB MORT = 0%	0.957	0.958	0.991	0.992	0.984	0.982	0.991	0.985	0.874
TURB MORT = 7%	0.939	0.940	0.951	0.972	0.971	0.974	0.962	0.974	0.856
TURB MORT = 24%	0.896	0.898	0.854	0.905	0.942	0.934	0.886	0.952	0.818
TURB MORT = 32%	0.873	0.879	0.809	0.880	0.925	0.945	0.853	0.942	0.802
TRANS MORT = 1%	0.937	0.938	0.906	0.942	0.957	0.965	0.927	0.964	0.872
TRANS MORT = 30%	0.740	0.751	0.906	0.937	0.813	0.965	0.925	0.964	0.618
TRANS MORT = 60%	0.525	0.547	0.906	0.937	0.665	0.965	0.925	0.964	0.397
TRANS MORT = 97%	0.260	0.295	0.906	0.942	0.481	0.965	0.927	0.964	0.034
FISH DIST + 4 HR	0.918	0.919	0.886	0.935	0.953	0.963	0.918	0.956	0.841
FISH DIST + 8 HR	0.918	0.919	0.885	0.933	0.953	0.963	0.909	0.961	0.841
FISH DIST - 4 HR	0.918	0.920	0.900	0.937	0.956	0.964	0.918	0.964	0.838
FISH DIST - 8 HR	0.917	0.919	0.870	0.931	0.951	0.962	0.907	0.953	0.843
FISH DIST + 5 DAY	0.919	0.921	0.906	0.938	0.959	0.965	0.925	0.964	0.834
FISH DIST - 5 DAY	0.918	0.919	0.905	0.936	0.955	0.963	0.925	0.963	0.842
FISH DIST + 10 DAY	0.918	0.920	0.906	0.937	0.961	0.965	0.926	0.964	0.835
FISH DIST - 10 DAY	0.917	0.918	0.894	0.933	0.954	0.963	0.917	0.963	0.839

Table 15. Percent difference from Base Run B for steelhead outmigrant dam and system survival values.

MPAC FISHPASS SENSITIVITY RUNS

STEELHEAD	PERCENT DIFFERENCE FROM BASE RUN B								
BASE RUN: B	LWG	LGS	LMN	IHR	MCN	JDA	TDA	BVL	SYSTEM SURVIVAL
RES MORT +20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-5.02%
RES MORT - 10%	0.00%	0.00%	0.00%	-0.53%	0.00%	0.00%	-0.22%	0.00%	2.22%
RES MORT + 10%	0.00%	0.00%	0.00%	-0.53%	0.00%	0.00%	-0.22%	0.00%	-2.60%
RES MORT -20%	0.00%	-0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.90%
FISH:SPILL .45:1	0.00%	-0.22%	-3.20%	-0.85%	-0.62%	-0.31%	-2.27%	-0.10%	0.60%
FISH:SPILL .75:1	0.00%	-0.11%	-1.43%	-0.85%	-0.21%	-0.21%	-0.22%	-0.10%	0.36%
FISH:SPILL 1.5:1	0.11%	0.11%	2.87%	0.32%	0.62%	0.21%	3.56%	0.00%	-0.60%
FISH:SPILL 2.25:1	0.22%	0.54%	5.74%	1.49%	0.94%	0.62%	4.21%	0.00%	-1.55%
FGE LOW	-1.31%	-1.41%	-0.53%	1.06%	-1.15%	-2.28%	1.40%	-1.24%	-9.20%
FGE HIGH	0.00%	0.00%	0.00%	2.55%	0.42%	-0.62%	2.57%	0.21%	0.24%
FGE + 25%	1.85%	1.95%	0.00%	1.17%	1.99%	1.55%	0.32%	1.14%	9.20%
FGE + 50%	2.51%	3.04%	0.11%	2.65%	2.40%	1.55%	0.76%	1.14%	11.71%
FGE - 25%	-1.74%	-1.85%	-0.11%	-2.02%	-1.99%	-2.49%	-0.65%	-1.24%	-13.02%
FGE - 50%	-3.49%	-3.69%	-0.11%	-3.40%	-4.08%	-5.08%	-1.19%	-2.49%	-30.94%
TURB MORT = 0%	4.25%	4.02%	9.38%	5.31%	2.82%	1.76%	6.90%	1.97%	4.42%
TURB MORT = 7%	2.29%	2.06%	4.97%	3.18%	1.46%	0.92%	3.78%	1.04%	2.27%
TURB MORT = 24%	-2.40%	-2.50%	-5.74%	-3.93%	-1.57%	-1.14%	-4.42%	-1.24%	-2.27%
TURB MORT = 32%	-4.68%	-4.56%	-10.71%	-6.58%	-3.03%	-2.07%	-7.98%	-2.29%	-4.18%
TRANS MORT = 1%	3.16%	2.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.16%
TRANS MORT = 30%	-19.29%	-18.46%	0.00%	-0.53%	-15.05%	0.00%	-0.22%	0.00%	-26.16%
TRANS MORT = 60%	-42.51%	-40.61%	0.00%	-0.53%	-30.51%	0.00%	-0.22%	0.00%	-57.35%
TRANS MORT = 97%	-71.68%	-67.97%	0.00%	0.00%	-49.74%	0.00%	0.00%	0.00%	-95.94%
FISH DIST + 4 HR	0.00%	-0.22%	-2.21%	-0.96%	-0.42%	-0.21%	-0.97%	-0.85%	0.48%
FISH DIST + 8 HR	0.00%	-0.22%	-2.32%	-0.96%	-0.42%	-0.21%	-1.94%	-0.31%	0.48%
FISH DIST - 4 HR	0.00%	-0.11%	-0.66%	-0.53%	-0.10%	-0.10%	-0.97%	0.00%	0.12%
FISH DIST - 8 HR	-0.11%	-0.22%	-3.97%	-1.17%	-0.62%	-0.31%	-2.16%	-1.14%	0.72%
FISH DIST + 5 DAY	0.11%	0.00%	0.00%	-0.42%	0.21%	0.00%	-0.22%	0.00%	-0.36%
FISH DIST - 5 DAY	0.00%	-0.22%	-0.11%	-0.64%	-0.21%	-0.21%	-0.22%	-0.10%	0.60%
FISH DIST + 10 DAY	0.00%	-0.11%	0.00%	-0.53%	0.42%	0.00%	-0.11%	0.00%	-0.24%
FISH DIST - 10 DAY	-0.11%	-0.33%	-1.32%	-0.96%	-0.31%	-0.21%	-1.08%	-0.10%	0.24%

Table 16. Slopes associated with the regression line of the points around the MPAC value for a given parameter.

Parameter	Scenario	
	No Transportation	FTOT Transportation
Reservoir Mortality		
Yearling	- 6.85	- 0.74
Subyearling	- 6.92	- 0.50
Steelhead	- 6.94	- 0.29
FGE		
Yearling	0.46	0.57
Subyearling	0.35	0.66
Steelhead	0.50	0.44
Turbine Survival		
Yearling	2.82	0.54
Subyearling	3.56	0.42
Steelhead	2.12	0.23

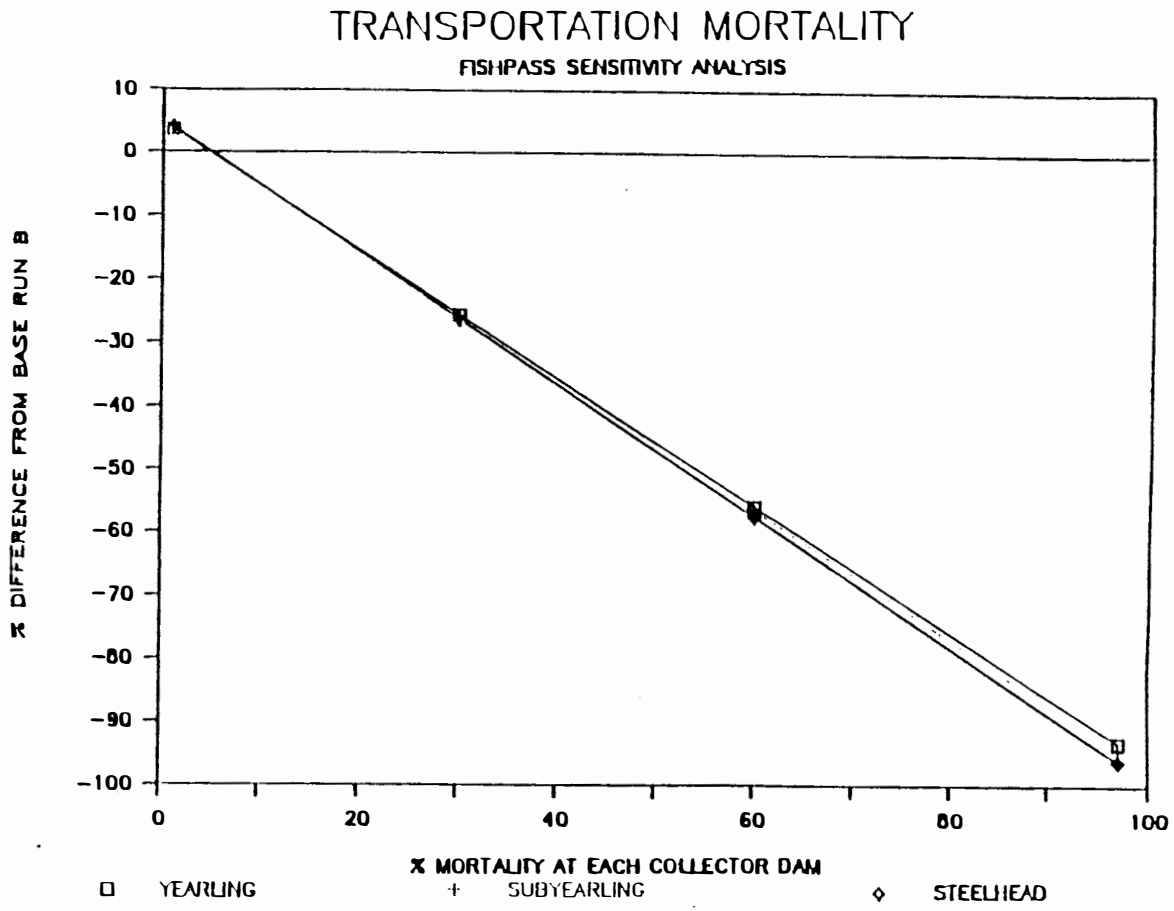


Figure 10. Percent deviation from Base B with different mortality values for yearling, subyearling and steelhead.

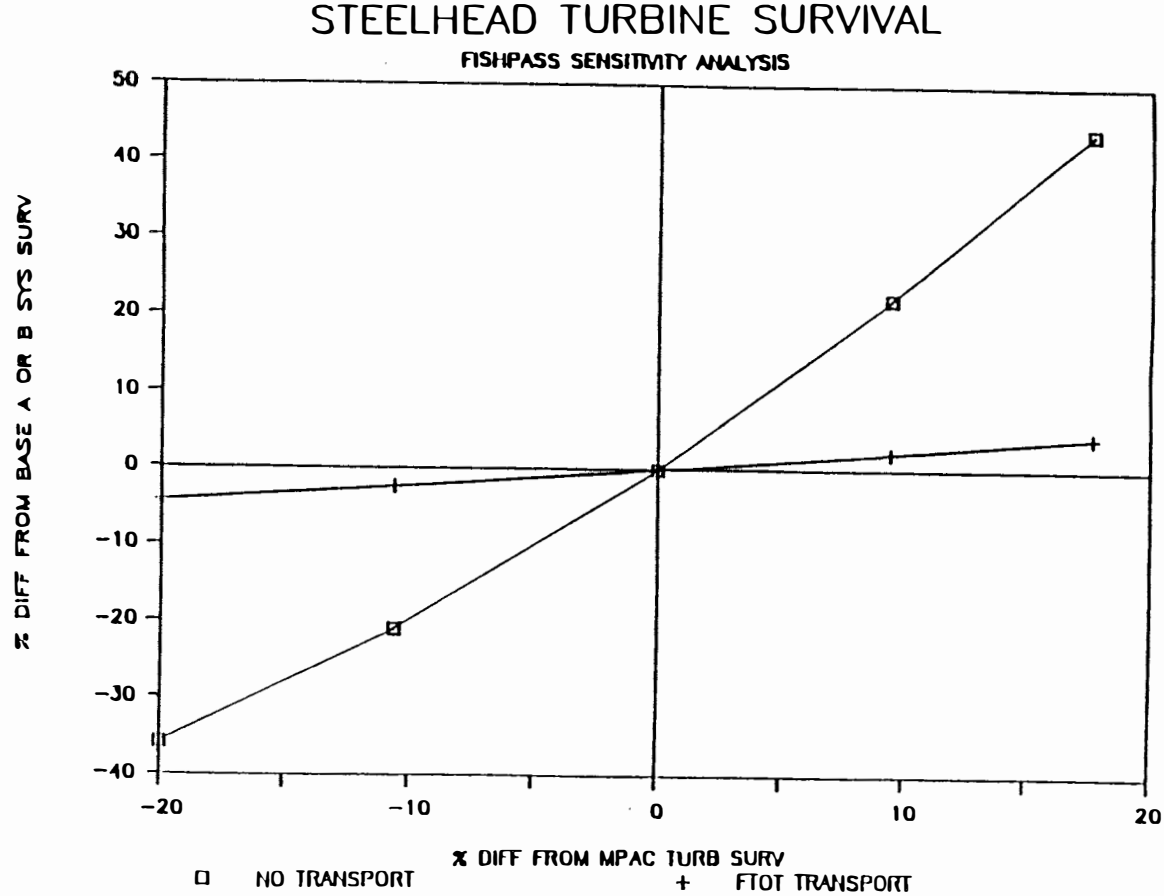


Figure 9. Percent deviation from Base A or B with changes in turbine survival for steelhead outmigrants.

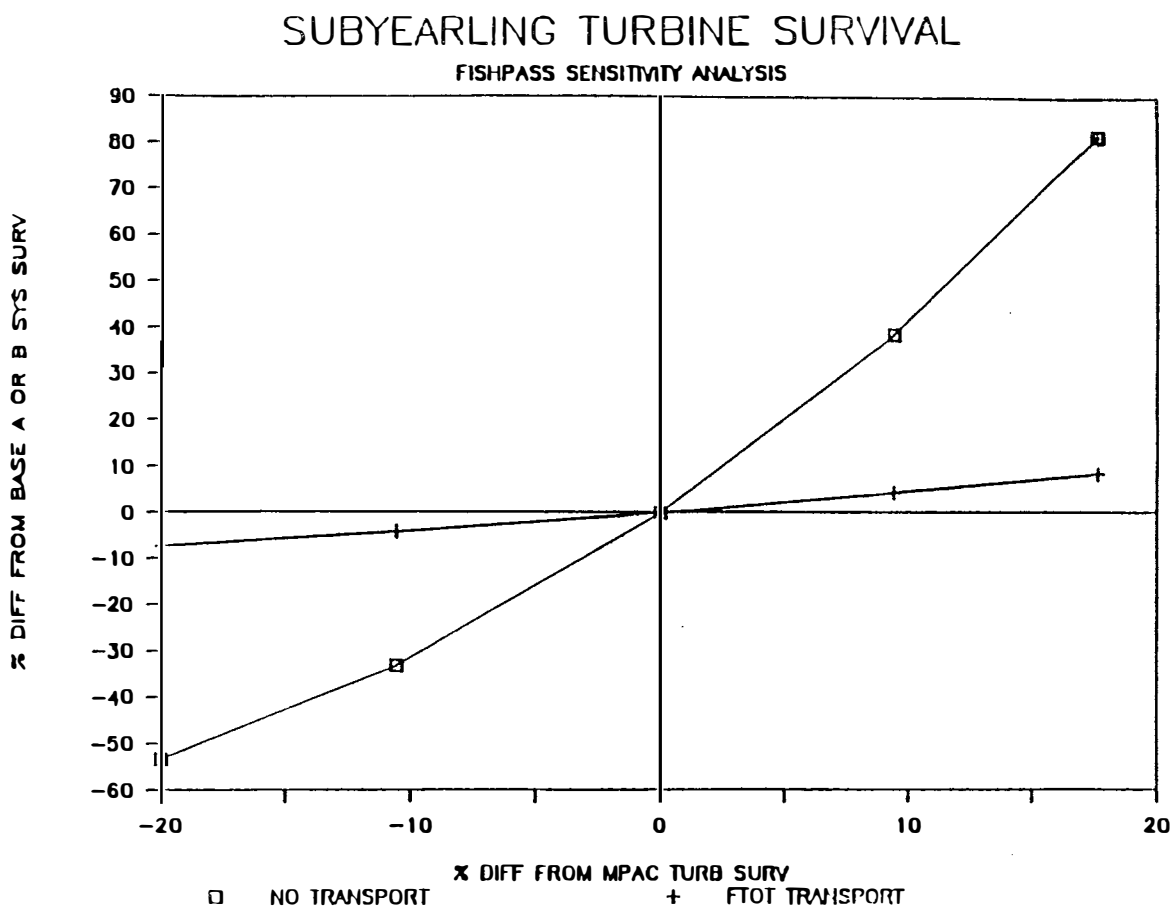


Figure 6. Percent deviation from base A or B with changes in subyearling turbine survival for subyearling outmigrants.

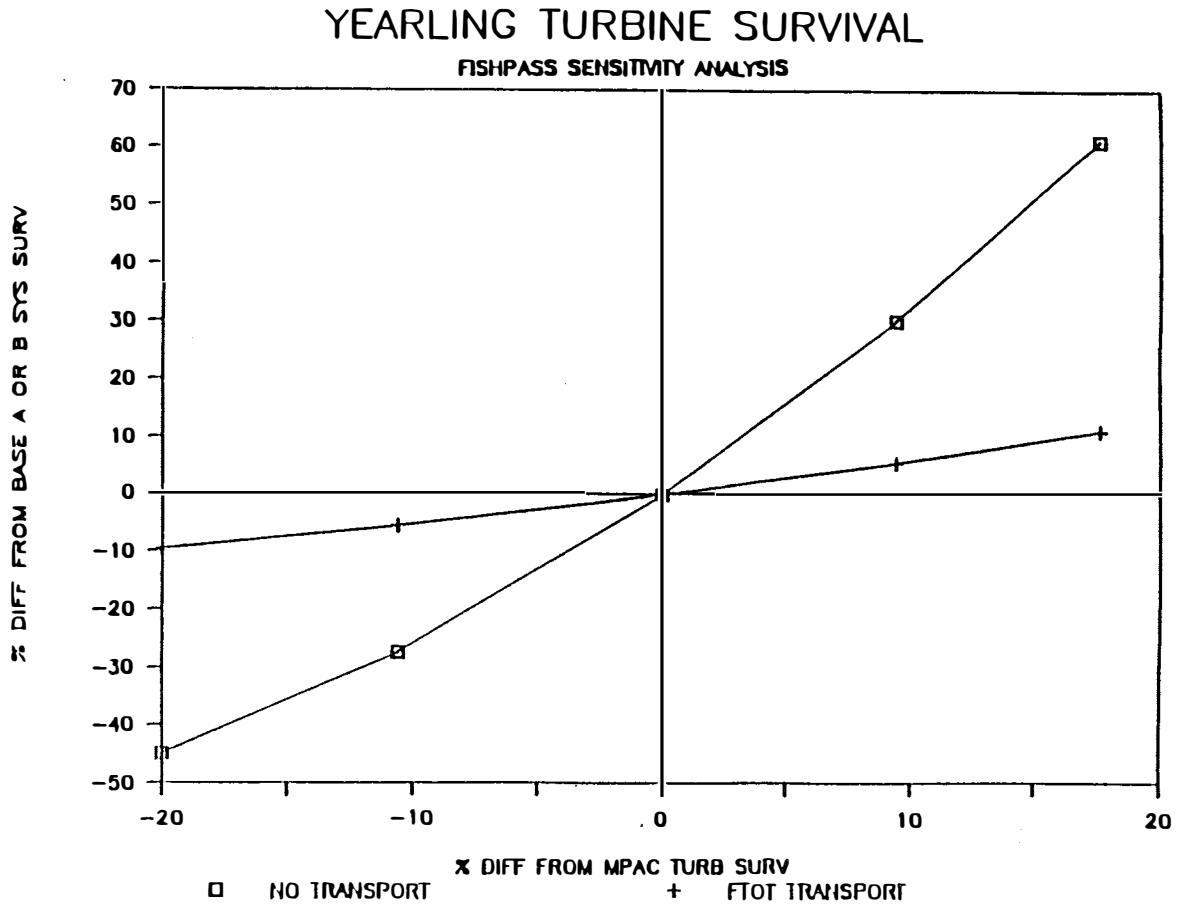


Figure 7. Percent deviation from base A or B with changes in yearling turbine survival for yearling outmigrants.

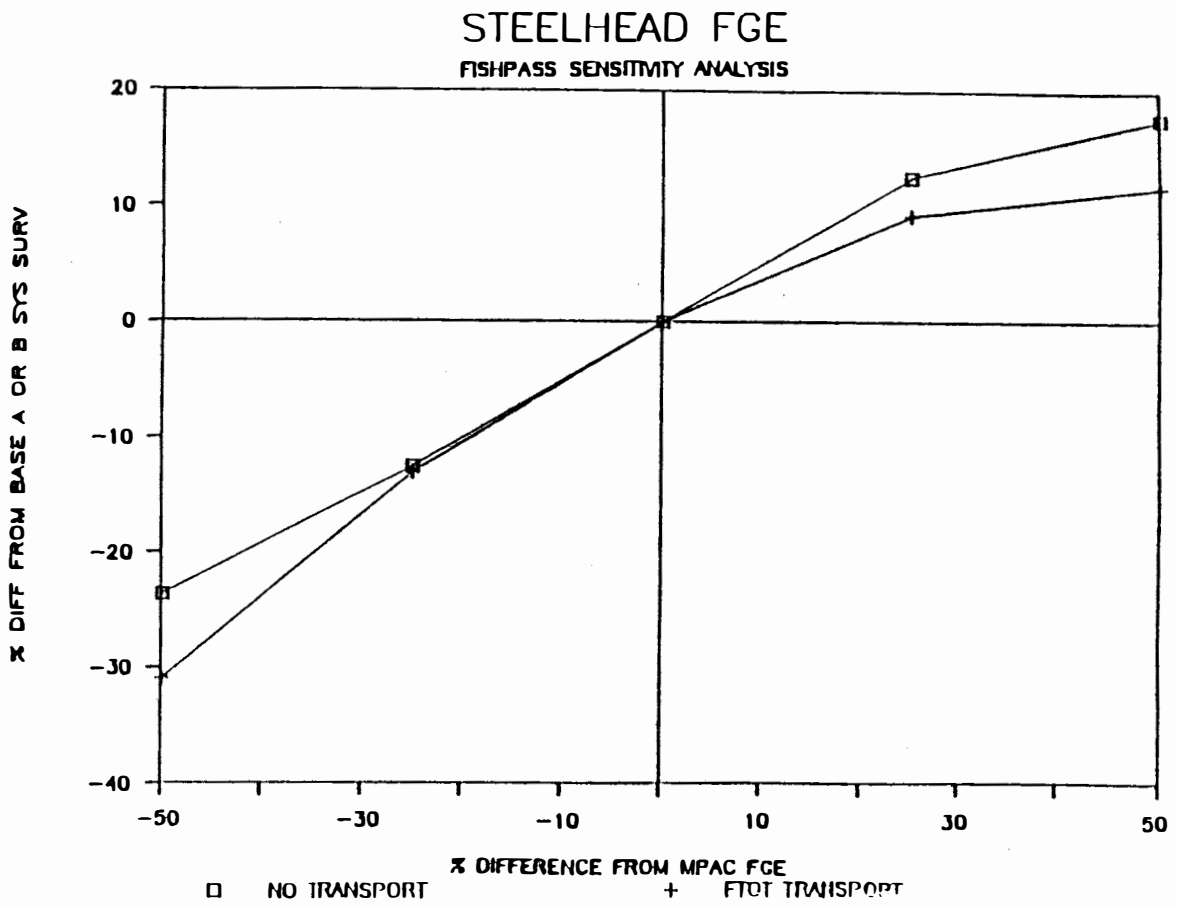


Figure 5. Percent deviation from Base A or B with changes in fish guidance efficiency for steelhead outmigrants.

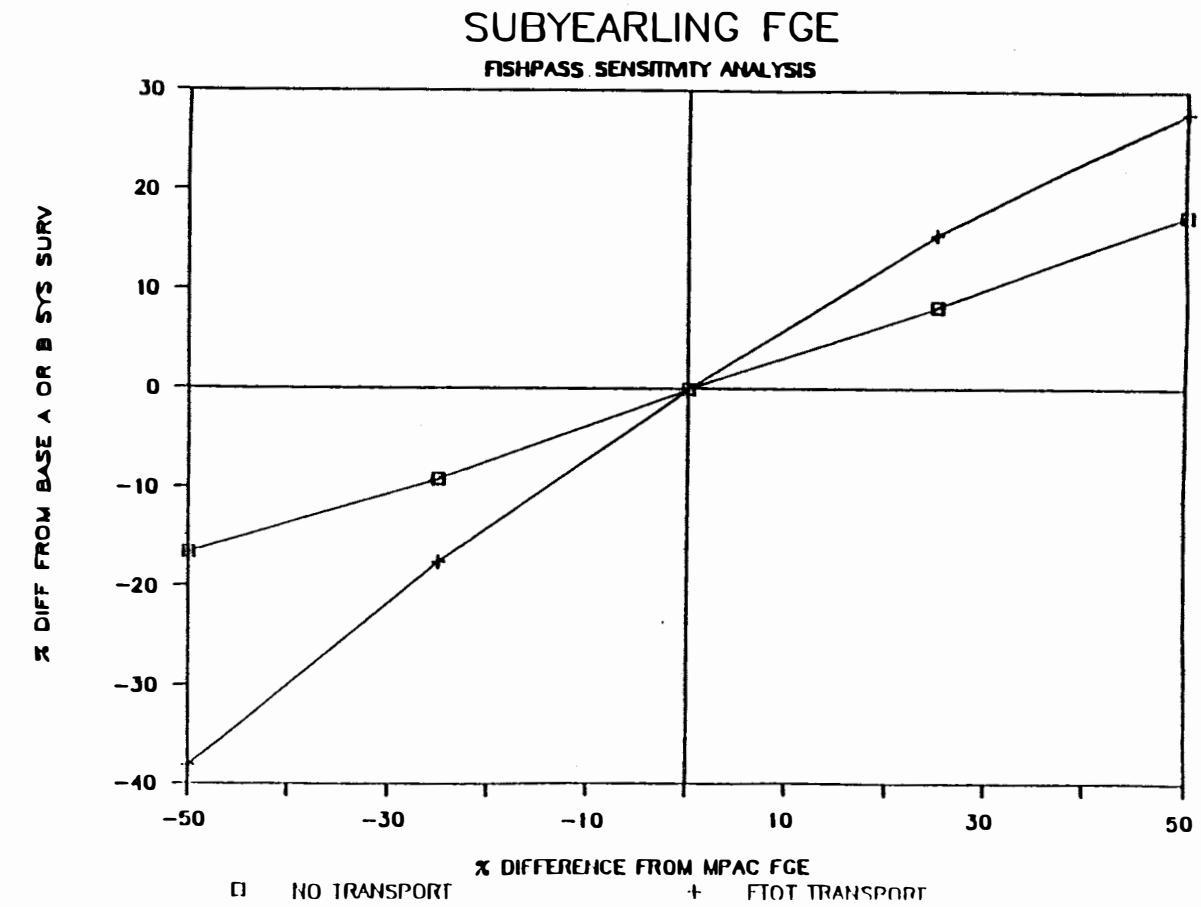
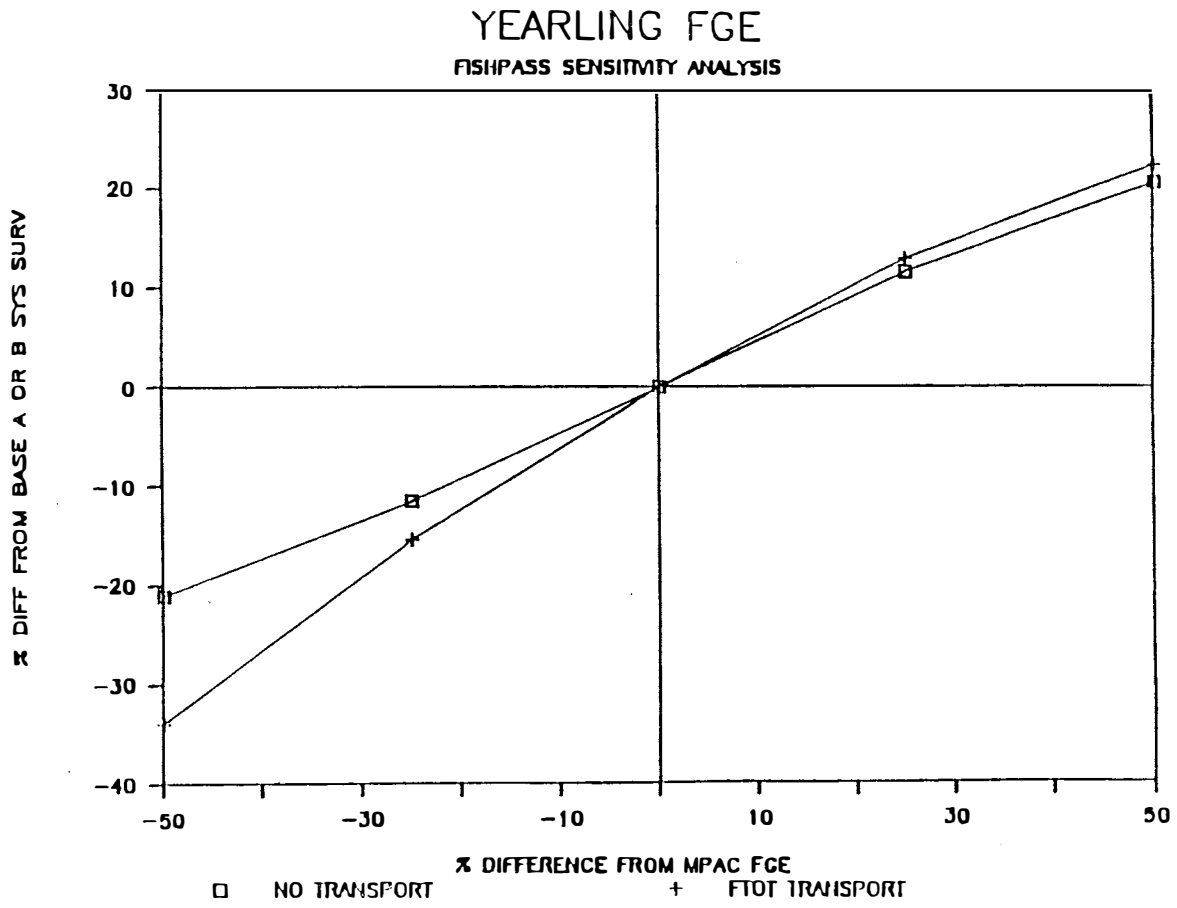
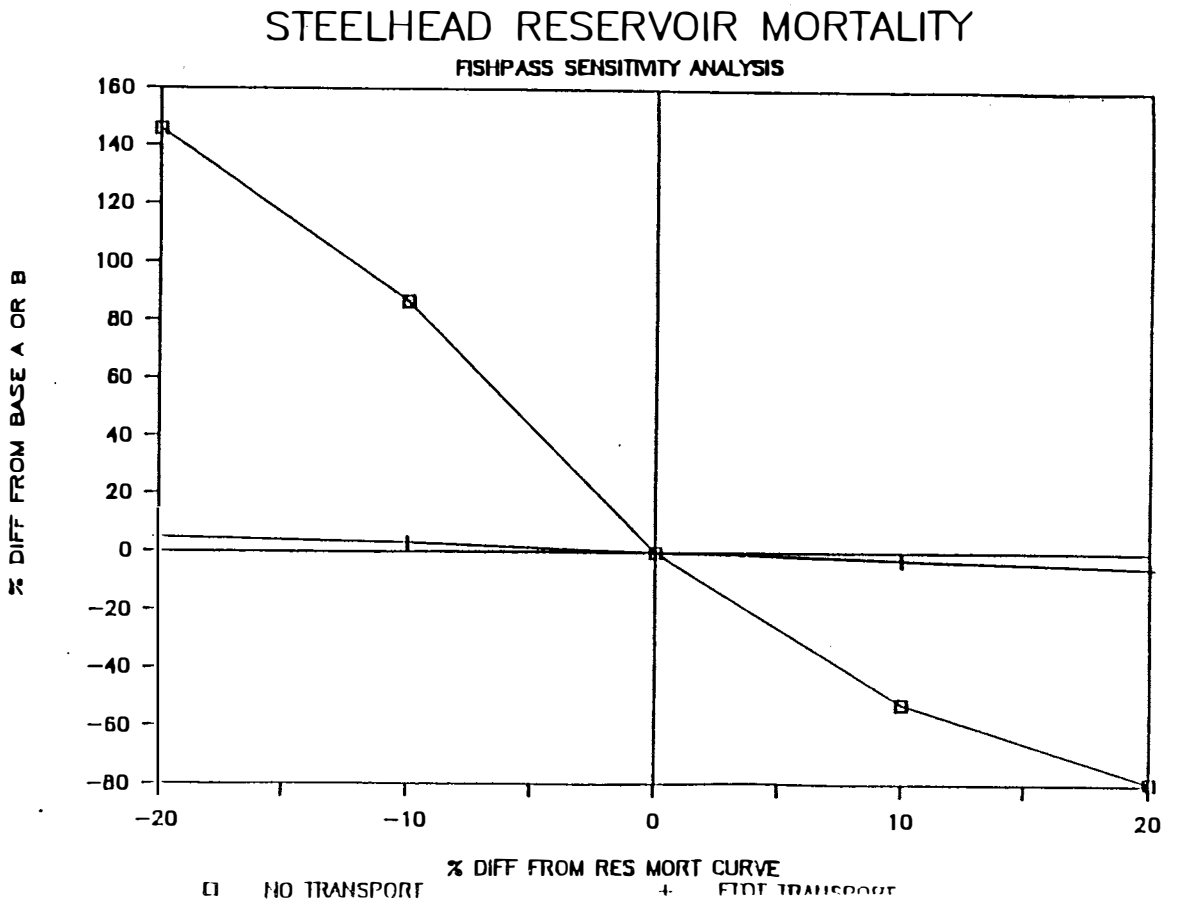


Figure 5. Percent deviation from Base A or B with changes in fish guidance efficiency for subyearling outmigrants



fish guidance efficiency for yearling outmigrants.



reservoir survival for steelhead outmigrants.

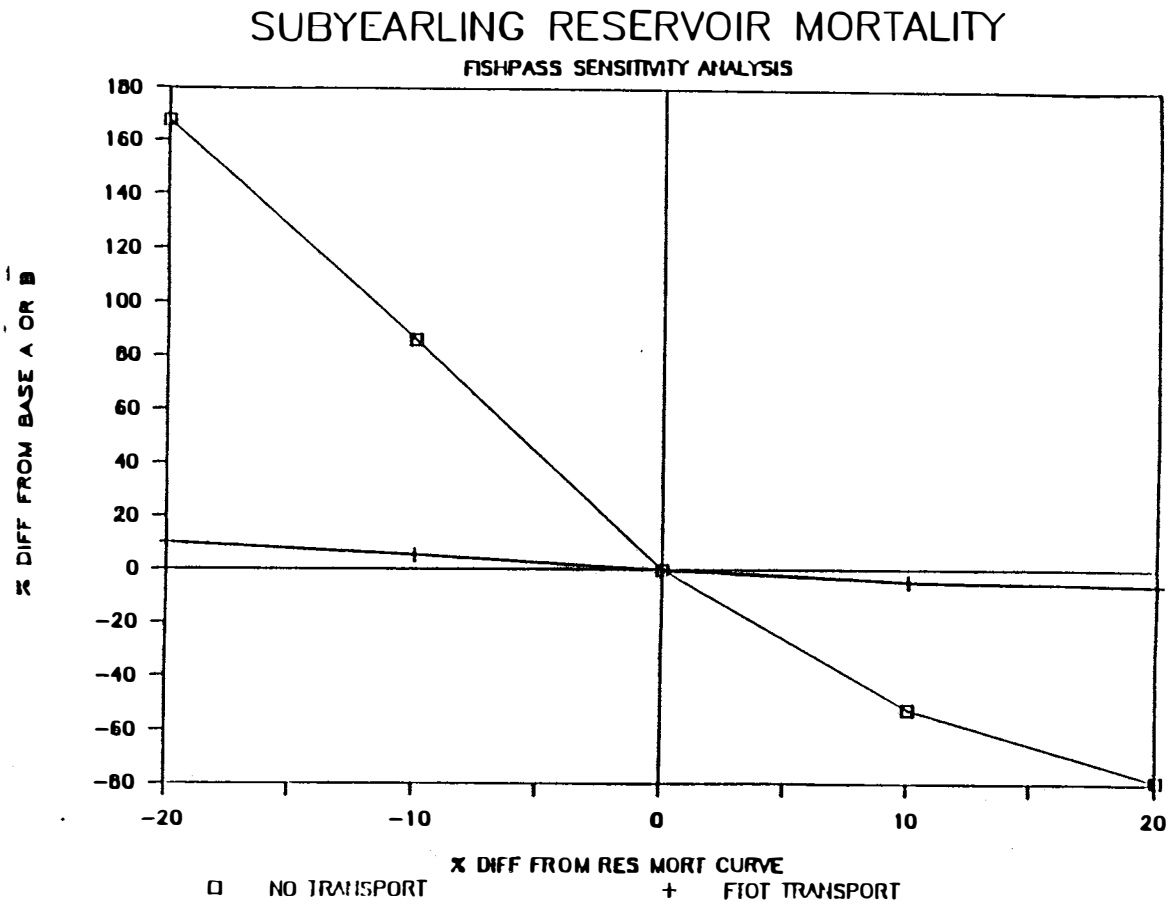


Figure 1. Percent deviation from Base A or B with changes in reservoir survival for subyearling outmigrants.

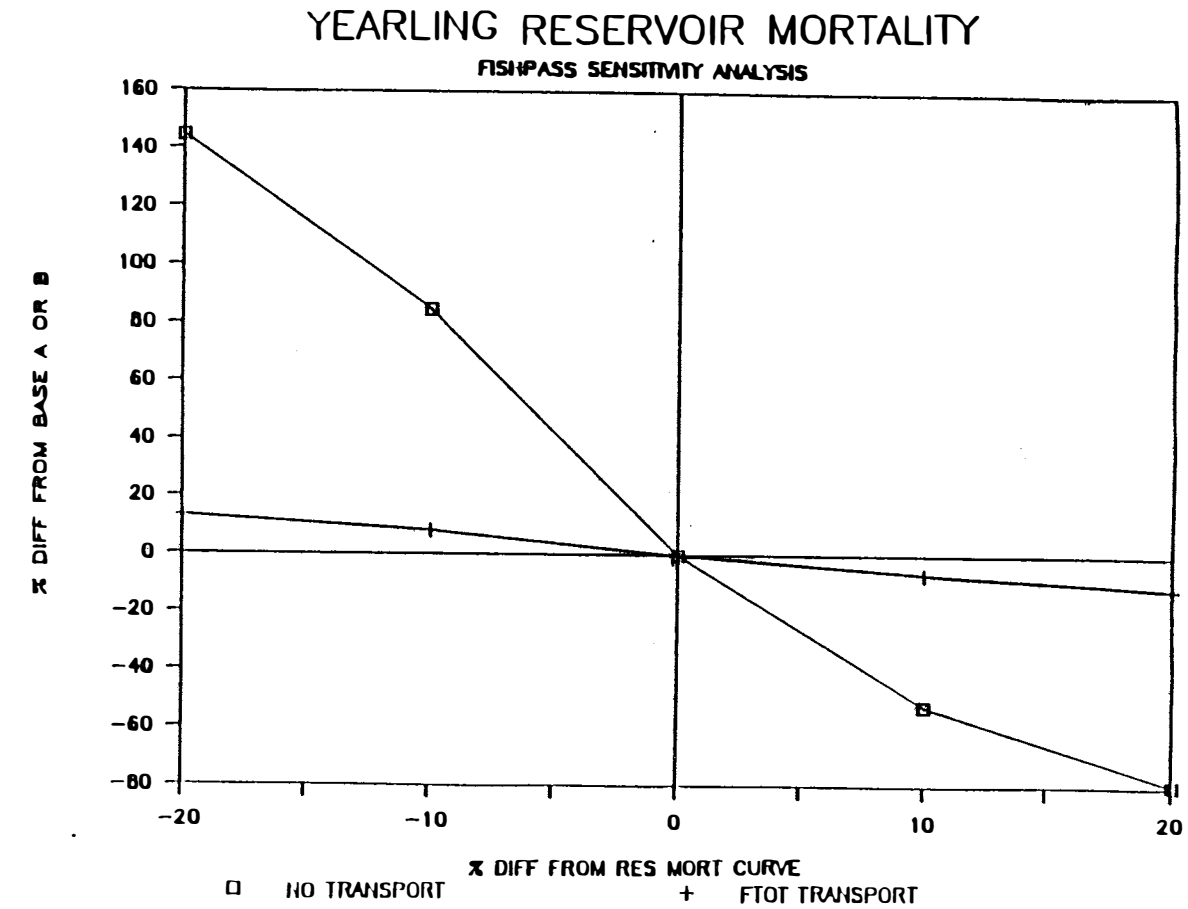


Figure 1. Percent deviation from Base A or B with changes in reservoir survival for yearling outmigrants.

EXHIBIT B

COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION
975 S.E. Sandy Boulevard, Suite 202, Portland, Oregon 97214 Telephone (503) 238-0667

Attachment TIE-1-87

August 8, 1986

Timothy J. Murray,
Environmental Coordinator
Office of Engineering and Construction
Bonneville Power Administration
P.O. Box 3621 - EVHC
Portland, Oregon 97208

Re: Terminal Expansion Supplemental EA

Dear Mr. Murray:

As per your letters of July 3 and 18, 1986, the Commission hereby provides its comments on the Terminal Expansion Supplemental Environmental Assessment. Based on our reviews of the EA and additional information more fully described below, we believe that the proposed expansion of the D.C. Intertie is clearly a major federal action that will significantly affect the quality of the human environment. Consequently, we request that Bonneville address the impacts of the D.C. terminal expansion in an environmental impact statement. We believe that if Bonneville were to proceed with manufacture and construction of the D.C terminal expansion in the absence of an environmental impact statement, such actions would constitute a violation of the National Environmental Policy Act.

Although our comments on the EA have been somewhat abbreviated due to the very short comment period allowed, we are nevertheless very concerned that the EA does not adequately portray the importance and breadth of consequences likely to arise from BPA's proposed action. In short, Bonneville has narrowly circumscribed its discussion and presentation of what are admitted to be detailed environmental analyses. The effect produced is a document that masks related and connected actions, forecloses the consideration of alternatives, obscures the significance of increases in fish mortality, disregards the variability and sensitivity of computer model output to alternative inputs, and fails to satisfy the spirit of NEPA.

PRESENTATION OF METHODOLOGIES AND ANALYSES

Subsequent to the February, 1985 terminal expansion EA, Bonneville conducted approximately one year of complex computer modeling exercises, EA at 2, involving several very complicated computer models: SAM (both hourly and monthly), LCMM, Marketing LP, and FISHPASS, EA at C-1, C-2. While the SAM is at the heart of the studies conducted by Bonneville, EA at 2, its only description appears in two short paragraphs in an appendix to the EA. By contrast, documentation of the SAM 1/ is quite lengthy. The SAM Methods and Theory Manual is approximately 300 pages in length and the User Manual for the SAM is approximately 400 pages in length. Given the importance of the SAM analyses to Bonneville's conclusions, that computer model certainly warranted a thorough discussion in the EA so that the reader might be reasonably informed as to the substance of the analysis underlying Bonneville's determinations. 2/

FISHPASS is also a very complex computer model. The Corps of Engineers' FISHPASS Model Concepts and Applications, March, 1986, while less lengthy than the SAM documentation is still nevertheless a very complex technical document. The documentation for FISHPASS is probably well beyond the ken of the average person who is not familiar with computer modeling, the physical layout of the Columbia River dams, and the fisheries biology peculiar to the juvenile life phases of salmon and steelhead stocks in the Columbia Basin originating above Bonneville Dam. Again, the EA should have discussed FISHPASS -- the methodology and analyses -- as it was used to determine impacts to salmon and steelhead. See O.E.C. v. Kunzman, 614 F. Supp. 657, 665 (D. Or. 1985) (EIS must be comprehensible by the interested public).

BONNEVILLE'S USE OF FISHPASS

Bonneville's use of FISHPASS suffers from a number of serious shortcomings. First, it does not appear that Bonneville conducted any sensitivity, verification, error, or other

1/ Documentation for the SAM has been prepared by and is available from the Pacific Northwest Utilities Conference Committee. We obtained a SAM User Guide copy in early July.

2/ While the Council on Environmental Quality regulations encourage incorporation by reference, such practice is limited to materials that are "reasonably available for inspection by potentially interested persons within the time allowed for comment." 40 C.F.R. 1502.21. It cannot be reasonably contended that a review period of 36 days would be sufficient for an average person to assimilate the 700 pages of documentation necessary to understand SAM plus the documentation of the other computer models used by Bonneville to interface with the SAM so as to draw an informed conclusion about the validity of analyses underlying Bonneville's characterization of impacts associated with an 1,100 megawatt transmission expansion.

analyses to determine whether the model produces numerically reasonable results. If Bonneville did conduct such analyses they were not presented. The Corps guidelines to the FISHPASS model certainly present no such documentation.

It is our belief that FISHPASS is most appropriately characterized as a simulation model, rather than a predictive or analytical model. The latter is generally based upon a great deal of available data allowing the model to generate results with a high degree of certainty. See generally Gulland, "The Analysis of Data and Development of Models," in Fish Population Dynamics, 77-94 (Gulland ed. 1977). Simulation models, on the other hand, often embody a number of assumptions and their use is valued not so much as an indicator of precise outcomes, "[r]ather, [their] results give an insight into the probable reactions of the system as a whole and indicate where more investigations or other actions may be required." Id. at 91.

FISHPASS employs a number of assumptions that have limited support in terms of collected, verifiable data. For instance, no spill efficiency studies have been completed at Corps of Engineer's dams. The FISHPASS runs undertaken by Bonneville assume a 1:1 spill efficiency ratio. Where spill efficiency has been measured at PUD dams, it has varied substantially from a 1:1 ratio. See EA at A-2 (Table A.1). Likewise, data collected regarding the survival of transported spring chinook do not support the survivals of 95%, 95%, and 98% assumed for fish transported from Lower Granite Dam, Little Goose Dam, and McNary Dam, respectively. See Letter to Robert Saxvik, Chairman, NPPC from S. Timothy Wapato, Executive Director, CRITFC dated June 6, 1986 (Attachment A). Similar uncertainty underlies other inputs to FISHPASS. 3/

3/ Gulland suggests that in using a simulation model, prudent investigators would repeat the simulation using different initial conditions so as to obtain insights as to reactions of the system as a whole. Gulland, supra at 91. Gulland cautions however, that not much attention should be paid to the numeric value as such represented by the output of simulation models.

On August 4, 1986, we corresponded with Mr. Stephen Smith in the Bonneville Fish and Wildlife Division requesting that Bonneville conduct certain additional FISHPASS model runs using alternative model inputs that reflect the results of published studies (Attachment B). Unfortunately, those additional model runs were not completed by the time we had to submit our comments. In general, our requested alternative input values represent a scenario where fish passage impacts due to reductions in spill would be more pronounced than under the scenario evaluated by Bonneville. For instance, we requested that Bonneville model input values based upon the status quo fish passage guidance efficiencies at Lower Monumental, Ice Harbor, and The Dalles Dams.

Considering the foregoing, we believe that FISHPASS may be used to indicate the frequency of differences (or reductions) in survival associated with an upgrade of the D.C. transmission facilities. However, FISHPASS is not a precise enough tool to accurately measure the quantitative magnitude of survival impacts for a single year. Additionally, FISHPASS is fully incapable of evaluating impacts over a multi-year period so as to determine effects upon long-term anadromous fish run sizes.

We analyze the occurrence of reductions in survival associated with D.C. terminal expansion we conducted two studies using output from FISHPASS and additional data obtained from Bonneville. First to determine whether there is a statistically significant relationship between the survival rates before and after D.C. terminal expansion, EA at appendix B, which Bonneville conducted using FISHPASS, we conducted the following parametric statistical analysis. The survival values obtained from FISHPASS for the existing and expanded capacity scenarios were considered as a series of paired comparisons. 4/ We then applied a "t-test" for these paired comparisons. 5/

4/ Paired comparisons are made when there are only two treatment groups (e.g. existing vs. expanded capacity). Each observation in one treatment is paired with one for the other treatment. This is analogous to a "before and after" analysis where the same population is tested twice. A paired comparison analysis is performed in order to account for the variations of survival seen among water years. Failure to allow for these differences may result in erroneous conclusions.

5/ One method of analyzing paired comparison designs is the "t-test for paired comparisons". The "t" statistic tests whether the mean of sample differences between pairs of readings in the two columns is significantly different from a hypothetical mean, which the null hypothesis puts at 0. The standard error over which the mean difference ($\bar{D}$) is tested is the standard error of the mean difference (Sokal and Rohlf, 1981). The standard error of the mean difference ($s_{\bar{D}}$) is defined as the standard deviation of a distribution of mean differences for samples of a given sample size "n". The following describe the test:

footnote cont.

Tables 1 through 10 (Attachment C) contain the results of the paired comparison t-test. Values of the standard error of the mean difference which are marked with a asterisk indicate a statistically significant t-value. This implies that a statistically significant decrease in survival was obtained for these stocks under the expanded capacity scenario. Subyearling stocks show a decrease in survival in all pools (except for Lower Granite and Bonneville) for all contract years. The analysis of the survival of the system pool stocks indicate that all stocks will show a decrease in survival under the 2002 contract year.

Of the 99 comparisons of mean survival, 51 of those comparisons (51.5%) show a statistically significant difference between survival under existing and expanded intertie capacity. In all of these 51 cases there is a reduction of survival under the expanded capacity scenario.

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footnote cont.

H_o: The true difference between the means of the two groups equals 0; $\mu_1 - \mu_2 = 0$.

H_1: The true difference between the means of the two groups does not equal zero; $\mu_1 - \mu_2 \neq 0$.

$$t_s = \frac{\bar{D} - (\mu_1 - \mu_2)}{s_{\bar{D}}} \qquad (1)$$

where

$\bar{D}$ = the mean difference,

$s_{\bar{D}}$ = the standard error of the mean difference.

Bonneville's "absolute" statistical analysis of FISHPASS output, EA at appendix B, provides the values for both the mean difference and the standard error of the mean difference (the equations used to obtain these values can be found in Sokal and Rohlf, 1981 p. 359). The critical value for a two tailed t-distribution for 19 degrees of freedom at $\alpha = 0.05$ is equal to 2.093 ($t_{.05[19]} = 2.093$). Therefore, any values of "t" calculated using equation (1) which are greater than the critical value force us to reject the null hypothesis (H_o) and accept the alternate hypothesis (H_1).

Subsequent to our determination that significant differences exist among survival rates before and after terminal expansion 6/, we undertook a second study to determine if the statistically significant changes in survival correlated to a change in overgeneration spill. While we do not accept the numeric values, as such, generated by FISHPASS (e.g., .x percent survival) as precise estimates of mortality, Bonneville's data generated using FISHPASS nevertheless shows a statistical relationship between changes in overgeneration spill and the occurrence of decreases in smolt survival. In the following analysis we test whether seasonal decreases in overgeneration are linked to seasonal decreases in system survivals. In order to interpret the results of the Bonneville analysis several intermediate steps were undertaken:

o Overgeneration spills and river flows were obtained from BPA for all dams for each of the twenty years tested in FISHPASS.

o Survival values for each stock and for each year tested in FISHPASS were obtained from BPA.

o Existing overgeneration spill proportions were multiplied by the period flow in order to obtain an average period volume for overgeneration spill for each dam which was summed over the seven periods. This step was repeated for the D.C. expansion.

o In order to remove the bias placed on the survival values by the FISHPASS input values any reduction of overgeneration spill between the existing and the D.C. expansion scenarios was assigned a value of 1, no change was assigned a value of 0.

o The system survival value for each of the twenty years was compared to the system survival value for each of the twenty years under D.C. expansion. Again any decrease in survival was assigned a 1 while all others were assigned 0's.

o A series of correlation coefficients were run for the change in overgeneration spill versus the change in survival for the yearling, subyearling, steelhead, and sockeye stocks.

6/ Note that the results of this study are not characterized in absolute survival values nor the absolute differences in survival values. The parametric statistic (t-test for paired comparisons) measured whether there was a significant relative change in survival before and after terminal expansion.

The results of the coding process are presented in Tables 1, 2 and 3 for the contract years 1992, 1997 and 2002, respectively. (Attachment D).

Table 4 lists the Pearson product moment correlation coefficients obtained.

Table 4. Correlation coefficients for the change in system overgeneration spill versus system stock survival.

Contract Year	Yearling	Subyearling	Steelhead	Sockeye
1992	.452 *	.905 **	.592 **	.373
1997	.471 *	.667 **	.471 *	.458 *
2002	.394	.414	.704 **	.798 **

* = significant at α = .05
** = significant at α = .01

This analysis demonstrates that on the basis of the information generated by Bonneville's use of FISHPASS, i.e. the "absolute survival statistics" referred to at page 9 of the EA, a significant relationship exists between changes in overgeneration spill and decreases in smolt survival. Together, both analyses imply statistically significant decreases in survival under the expanded D.C. intertie capacity scenario.

BONNEVILLE'S USE OF RELATIVE SURVIVAL STATISTICS

Having identified "absolute" survival values, Bonneville transforms that information into relative survival values and compares those values against "test criteria" to determine the significance of survival changes. As discussed above, we have demonstrated that the differences among "absolute" survival rates are statistically significant in the majority of cases, and in all cases where a significant difference is indicated, a decrease in survival is associated with the D.C. terminal expansion. Nevertheless, Bonneville's next step is to apply a nonparametric statistical analysis that compares relative survival statistics to criteria selected by a fisheries biometrician under contract to Bonneville.

The use of a nonparametric statistical analysis to evaluate the significance of changes in survival would be justified under conditions where a dependent relationship exists among the stock survival rates over the course of the 20 years of analysis (i.e., system survival was not a statistically independent event, but was dependent, for instance, upon the success of prior outmigrations). Under these circumstances, parametric statistics would not be applicable since population size in any given year is dependent upon the population of the parent generation. However, Bonneville's use of FISHPASS assumes a constant migrant population size, independent of preceeding generations, in each year of the analysis. Under these circumstances a parametric statistic can be applied and is the statistic of choice.

The EA does not describe the rationale for applying a nonparametric statistic nor does it describe the rationale for the particular values chosen to indicate the potential for significance. The C.E.Q. regulations require that methodologies be identified. 40 C.F.R. 1502.24. While Lars Mobrand is a respected biometrician, reference to his name alone is not the same as the identification of a methodology or citation to a published source. EA at 10, fn. Where the test criteria form an integral part of the analysis, as they do here, the basis for those criteria must be set forth.

Indeed, the criteria set forth for determining the significance of fish mortality (EA at 10) are, in our opinion, arbitrary. Among other things, it is inappropriate to average survival rates over a twenty year period to arrive at a conclusion about the significance of fish mortality. Within a twenty year period survival can be expected to vary much more than the average. In salmonid management less frequent, but catastrophic events are crucial. A single year's severe mortality rates may impose substantial adverse consequences on harvest, as well as artificial and natural production, management regimes. An evaluation of survival changes that masks less frequent events by averaging those events across year classes ignores fundamental aspects of the salmon life cycle (e.g. 1986 outmigrant population size is unrelated to 1985 outmigrant populations, but it is related to the passage conditions for the outmigration of parent generations, which occurred in years prior to 1985). Assuming that FISHPASS was a dependent life-cycle model where long term population effects might be discernable over a twenty year period, criteria that average impacts to ascertain a population trend might hold some very limited validity. However, in the absence of some stated rationale, we can only conclude that the criteria are arbitrary.

Fish stocks are managed on an individual basis to the extent possible; using means and medians across all stocks in the context of fisheries management is virtually meaningless. Indeed, prior to publication of the errata Bonneville had averaged survival rates across different species of fish. See Terminal Expansion Supplemental EA Errata ("Data for yearling and sub-yearling were not disaggregated for this discussion."). By

averaging impacts across stocks, Bonneville ignores the consequences of increased mortality to important populations that might be eliminated or prevented from rebuilding to desired levels. All stocks mentioned at page 11 of the EA, with the exception of sockeye, are hatchery stocks. The status of these hatchery stocks does not reflect the tenuous condition of naturally spawning spring and summer chinook stocks in the upper Columbia. For instance, Wells pool naturally reproducing spring chinook have declined recently to almost non-detectable levels. Howell 1985a, p. 429.

The FISHPASS output and subsequent analyses performed by Bonneville do not account for hydroproject impacts affecting the population size of outmigrant progeny. As a consequence, Bonneville fails to meaningfully address multi-generational population effects due to intertie expansion in a way that displays the long term effects of decreasing overgeneration spill. Again averaging impacts across twenty years of statistically independent salmon and steelhead populations is not an appropriate means by which to consider long term effects on overall population size. A more appropriate evaluaton would involve the application of a salmonid life cycle model such as that under development by the Northwest Power Planning Council. The Council's model may be run for any number of years and the final status of a particular stock being studied after "x" number of years would be the variable tested under the existing and expanded capacity scenarios.

At page 11 of the EA Bonneville makes certain generalizations about the status of various upper Columbia stocks. The stocks, contrary to Bonneville's characterization, are not so strong as Bonneville assumes. Recent sockeye runs are a periodic event and do not indicate stock status. Sockeye run sizes are known to have wide periodic variations. Sockeye runs are expected to be marginal in most years and the 1986 run size of sockeye (56,000 fish at Bonneville Dam) is much smaller than the 1984 and 1985 run sizes (161,000 and 196,000 fish at Bonneville Dam, respectively). See CRITFC News: Tribal Supplement, June 1986 (Attachment E). In general, fish stocks are managed for average and below average conditions. It is improper to assume that recent above average conditions will prevail in the future. The 1986 sockeye and jack spring chinook counts indicate decreases in these stocks in the future.

SALMON AND STEELHEAD REBUILDING

The Northwest Power Act, the U.S. - Canada Pacific Salmon Interception Treaty, and the Salmon and Steelhead Conservation and Enhancement Act are directed toward rebuilding naturally spawning salmonid populations in the Columbia River Basin. To achieve this rebuilding, improvements in mainstem passage survival are needed. No change from the present is actually movement backwards and is inconsistent with congressional directives.

The Northwest Power Act mandates that the Northwest Power Planning Council develop and adopt a program for restoring the basin's anadromous fish by among other things providing for "improved survival of such fish at hydroelectric facilities located on the Columbia River system." 16 U.S.C. 839b (h)(6)(E)(i). Additionally, Bonneville is under an obligation to provide equitable treatment for Columbia Basin salmon and steelhead. 16 U.S.C. 839b (h)(11)(A)(i). We believe this means, at a minimum, that Bonneville is forclosed from taking actions which decrease the survival of anadromous fish at hydroelectric facilities. Yet, as discussed above the D.C. terminal expansion will cause decreases in anadromous fish outmigration survival.

The U.S. - Canada Pacific Salmon Interception Treaty directs that the United States and Canada will "halt the decline in spawning escapements in depressed chinook salmon stocks" and "attain by 1998 escapement goals established in order to restore production of naturally spawning chinook stocks...." Treaty Between the Government of the United States of America and The Government of Canada Concerning Pacific Salmon, Chapter 3 (Ottawa, January 28, 1985). Bonneville's proposal to increase the mortality of naturally spawning chinook populations is inconsistent with the treaty's provisions and the United States' international obligations to Canada.

FORECLOSING THE CONSIDERATION OF ALTERNATIVES

The assessment of alternatives contained in the February 1985 terminal expansion EA is woefully inadequate. 1985 EA at 4-5 (alternatives addressed in two sentences). The 1986 supplemental EA does nothing to rectify Bonneville's shabby consideration of alternatives. Moreover, it appears that Bonneville is studying alternatives to the proposed action under its development of the Intertie Development and Use Draft Environmental Impact Statement. EA at 40, 43. Based upon public consultations on the scope of the IDU-EIS, we are of the understanding that Bonneville is studying the relationship of a variety of intertie access policies in conjuntion with various levels of intertie upgrades. The EA on the other hand seeks to implement one particular alternative being considered in the IDU-EIS: D.C. terminal expansion and the near term intertie access policy. Other alternatives under consideration in the IDU-EIS include D.C. expansion under access policies different than near term and A.C. expansion independent of D.C. expansion. Because of the close relation of the issues being considered in the IDU-EIS, we request that our scoping comments on that document be reflected in the record for this EA. Additionally, we request that Bonneville consider the entire record developed for the IDU-EIS in making an evaluation of proceeding with the D.C. expansion on the basis of an EA.

The EA impact analyses are premised upon the near term intertie access policy, EA at 4, that according to a variety of scoping documents published by Bonneville, will be superseded by

a long term intertie access policy prior to completion of the D.C. terminal expansion. Bonneville's justification for using the near term policy is that the policy "is currently in effect." EA at 3. The stated basis for assuming the near term policy is arbitrary. The near term policy will not be in effect if and when the D.C. expansion is completed; the long term policy will be.

The D.C. terminal expansion is clearly part of an integrated major programmatic action by Bonneville to increase the Northwest's access to Pacific Southwest energy markets. The D.C. terminal expansion is but one facet of that program. However, it is without a doubt one of the most significant aspects of that program, if not the most significant. Bonneville stands the C.E.Q. regulations on their head to arrive at the conclusion that an EA will suffice for consideration of this 1,100 megawatt, very substantial capacity addition. C.E.Q.'s regulations on tiering, 40 C.F.R. 1502.20, anticipate a sequence where a program environmental impact statement leads to environmental assessments on site specific actions that are part of the larger program. Bonneville has inverted the process. It seeks to prepare an EA on the first crucial aspect of its increased marketing program, and deal with programmatic issues after the increased marketing program is a fait accompli. This approach was rejected in Port of Astoria v. Hodel, 595 F.2d 467, 477 (9th Cir. 1979) and it should be rejected now.

THE NEW RESOURCE INCENTIVE EFFECT

In response to comments, Bonneville suggests that future resource development that anticipates expansion of the intertie is remote and speculative. Bonneville's suggestion is contrary to recent need for power analyses contained in environmental documents prepared by the Federal Energy Regulatory Commission. E.g. Frederick L. Pickering, 35 FERC 62,190 (April 29, 1986).

> The recent and ongoing modifications to increase the carrying capacity of transmission lines connecting the Pacific Northwest, California, and the Southwest will allow significantly greater transfer of power than has occurred in historically thus providing and expanded market for economic project power.

Id. In this proceeding the applicant was granted a minor hydropower license to construct a project on a tributary of the Lewis River in southwest Washington. The relationship between intertie capacity expansion is not remote and speculative.

We concur in comments provided to you by the National Marine Fisheries Service and the Washington Department of Fisheries, which have sought to test the enforcement of the near term intertie access policy restrictions intended to protect the

fisheries resource from the consequences of the intertie incentive effect. We request that those comments and the related aspects of record on the near term intertie access policy be considered by Bonneville in its determination of whether to proceed on the basis of this EA.

CONCLUSION

We appreciate the opportunity to comment on the supplemental terminal expansion EA. Considering the related and connected actions that are being addressed under the IDU-EIS, we believe that it would be imprudent for Bonneville to proceed with the D.C. terminal expansion on the basis of this EA. Bonneville must act with the reponsibility of a trustee when dealing with the treaty-secured fisheries resources of the Commission's member tribes: the Confederated Tribes and Bands of the Yakima Indian Nation, the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Confederated Tribes of the Warm Springs Reservation of Oregon. That responsibility does not allow Bonneville to make arbitrary assumptions. Nor does that responsibility allow Bonneville to foreclose programmatic alternatives that may be more protective, rather than less protective of the Tribes' interests.

Sincerely,

S. Timothy Wapato

S. Timothy Wapato,
Executive Director

cc: Tribal attorneys

ATTACHMENT "A"

COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION
975 S.E. Sandy Boulevard. Suite 202. Portland, Oregon 97214 Telephone (503) 238-0667

attachment
TIE-1-87

June 6, 1986

Mr. Robert Saxvik, Chairman
Northwest Power Planning Council
850 S.W. Broadway, Suite 1100
Portland, OR 97205

Dear Chairman Saxvik:

In a letter of January 24, 1986 jointly signed by myself for the Columbia River Inter-Tribal Fish Commission and Dr. John Donaldson for the Columbia Basin Fish and Wildlife Council, we provided the Northwest Power Planning Council with a discussion of fish transportation crediting. The discussion was contained in an attachment entitled "Transportation Crediting in Modeling Exercises" (appendix A). The purpose of the discussion was not to address the decline in spring chinook salmon, question the credibility of NMFS research reports, or even to consider the positive or negative benefits of transportation. It only drew conclusions regarding the crediting of transported spring chinook in modeling exercises.

On March 10, 1986, we received "informal" comments from Mr. John Williams, Fisheries Biologist, Portland District Army Corps of Engineers (appendix B). The comments of Mr. Williams were reiterated by Dr. Wes Ebel in his March 10, 1986 letter to the Council (appendix C). On May 21, 1986, without prior consultation with the tribes, the CBFWC Working Group submitted a memo to its directors (appendix D). This memo again parroted the informal comments of Mr. Williams.

Since Mr. Williams' comments include a much more complete presentation of the reviewers' analyses and concerns we have directed our specific reply to his letter (appendix E). The following are general comments in response to the reviews:

I - The discrepancy between the reviewers and our conclusions, regarding the survival of transported versus non-transported fish, appears to be the result of an incorrect calculation in Mr. John Williams' analysis. Mr. Williams severely underestimated the number of non-transported fish to survive below Bonneville Dam.

II - The reviewers criticize the comparison of transport/control ratios among years stating that there is no reason to expect consistency among these data sets. We agree with this claim. Moreover, we believe that the inconsistency in transport/control ratios from year-to-year as much as admits that any proposal to credit transportation as a constant can not be justified using existing data.

III - All of the reviewers suggest that the methodology should be applied to non-transported fish in the same manner as it was applied to transported fish. We have conducted that analysis. When applying the same methodologies to non-transported fish we reach the same conclusions stated in the January 24 attachment -- transported spring chinook do not survive as well as non-transported spring chinook once they are below Bonneville Dam.

We hope that this discussion clarifies some of the questions arising from the Attachment I analysis and related subsequent correspondence. We regret that any confusion may have arisen. If you have any questions, please do not hesitate to contact us.

Sincerely,

S. Timothy Wapato

S. Timothy Wapato
Executive Director

cc: Rolland Schmitten, CBFWC
William Aron, NMFS-CZES

Attachments

APPENDIX A

ATTACHMENT 1

TRANSPORTATION CREDITING IN MODELING EXERCISES

The use of transportation as a means of increasing the overall system-wide survival of migrating juvenile salmonids has been the subject of numerous research studies (Park, in Corps 1985). However, the application of transportation benefits to the calculation of system survival in modeling exercises has not been clearly defined, particularly for spring chinook. The question arises as to the appropriate manner of crediting transportation in the system (at individual projects or as a system-wide compensation) and the magnitude of the credit.

With respect to individual projects, the Corps of Engineers favors crediting transported fish at the collector projects and at all projects downstream, while the agencies and tribes prefer a more conservative approach that would give credit only at the collector projects. The rationale of the agencies and tribes is that the Corps' crediting policy would result in inadequate in-river protection for untransported fish and to stocks of fish that enter below the the collector sites.

With respect to crediting transported fish in overall system survival, the Corps and Bonneville Power Administration propose "full credit" (the total number of smolts transported to below Bonneville Dam), while the agencies and tribes promote the crediting of smolts to offset system compensation obligations. The agencies 'and tribes ' proposed system crediting policy -- discounting smolts by their potential to return as adults -- is based on the discrepancies between predicted and measured

transport benefit ratios (TBR's). The rationale for this is discussed in the October 2 memorandum to MPAC and NPPC which includes the theoretical discussion of an adult return ratio (ARR).

This report presents two sets of analyses which attempt to quantify the benefits of yearling chinook transportation. First, the Rapid River hatchery return/release data were examined to determine if there were any discernable benefits attributable to transportation. The second set of analyses uses the transport/control data and attempts to quantify an appropriate adjustment factor (in terms of adult returns) for yearling chinook transported below Bonneville Dam.

I. Rapid River Hatchery Return per Release of Spring Chinook

The first approach of the analysis was to test if the return/release ratio obtained at Rapid River Hatchery increased after the initiation of transportation. The following (Table 1) tabulates the return per release information for spring chinook obtained at the Rapid River Hatchery:

Table 1. Rapid River return per release data 1/

BROOD YEAR	RELEASE YEAR	#RELEASED AT RAPID RIVER HATCHERY (millions)	TOTAL RETURN	RETURN PER RELEASE	% TRANSPORT
1970	1972	2.8	3881	.0014	0
1971	1973	2.9	6570	.0023	0
1972	1974	2.7	7829	.0029	0
1973	1975	3.4	19205	.0056	10
1974	1976	3.6	8704	.0024	15
1975	1977	3.2	803	.0003	68
1976	1978	2.4	3256	.0014	51
1977	1979	3.0	7113	.0024	49
1978	1980	2.8	5122	.0018	58
1979	1981	2.4	1262	.0005	46
1980	1982	1.5	1772	.0012	28

1/Idaho Department of Fish and Game memo to A.Pinkham, Feb. 1984.

A t-test was performed on the data set to determine if the two means (mean for return/release pre-transport, release year 1972-1974, and mean for return/release post-transport, release year 1975-82) were statistically different. The null hypothesis ($\mu_1 - \mu_2 = 0$) at $\alpha = .05$ failed to be rejected. It is therefore concluded that the positive benefits of transportation for spring chinook can not be statistically demonstrated with the Rapid River return/release data.

II. Transport/Control Ratios

The merits of transportation for spring chinook are espoused on the basis of four years transport/control ratios.

(Park, in Corps 1985). The table for spring chinook contained in the Corps' Comprehensive Report of Juvenile Salmonid Transportation is partly reproduced for illustrative purposes (Table 2).

Column 4 lists the observed percent return as adults. This observed value was calculated by dividing column 3 (number of tagged adults) by column 2 (number of tagged juveniles released). The estimated percent return as adults, column 5, was calculated by multiplying the observed percent return as adults (column 4) by each year's detection efficiency. Park does not list detection efficiencies, but he explains that these are correction factors for the variable efficiency of tag recovery each year. It is assumed that the unmarked population responds to transportation and in-river passage in a similar fashion to marked fish, and therefore the ratios calculated in Table 2 can be applied to an unmarked population.

Table 2. Spring Chinook Transport/Control Ratios (from Park, in Corp 1985).

Release Group Year (Lower Granite) (1)	Number of Juveniles Released (2)	# Adults Captured (3)	% Return as Adults Obs (4)	% Return as Adults Est (5)	Transport/ Control Ratio (6)
Control					
1975	43,902	138	.313	.861	---
1976	28,686	11	.038	.109	---
1978	36,441	5	.013	.039	---
1979	21,876	3	.011	.077	---
Transport/Truck/Fresh H_2O					
1975	68,550	436	.635	1.746	2.03:1
1976	72,918	18	.025	.072	0.66:1
1978	43,855	33	.075	.225	5.77:1
Transport/Truck/Salt H_2O					
1976	61,446	24	.039	.112	1:1
Transport/Barge					
1978	56,546	66	.116	.348	8.92:1
1979	27,336	12	.043	.301	3.91:1

*It should be noted that insufficient returns necessary to make estimates were obtained from groups which were released during 1977 and 1980.

A) General Criticisms of Transport/Control Ratio

The positive benefits of transport for spring chinook are not easily discerned from the available transport/control ratios. The data for at least one year, 1976, describes a transport/control ratio of 1:1 or less.

The control group used for 1978 is the same control as that for Little Goose. The purpose of using the Little Goose control was ostensibly to remove any bias that may have occurred when the control fish from Lower Granite were transported to Little Goose. Generally, few tagged fish returned as adults from the Little Goose release and the transport/control ratios measured at Little Goose for 1978 were substantially less than 1:1 (Ø.77:1 and Ø.15:1 for fresh and salt water trucked, respectively). However, using the small percentage of tagged fish returned from the Little Goose control and the percentage of fish returned as adults from the Lower Granite transported release yields the highest measured transport/control ratios (5.77:1, trucked and 8.92:1, barged). If the Lower Granite control is substituted, the values for the transport/control ratio are decreased to 2.5:1 and 3.87:1, respectively. For subsequent analyses the lower transport/control ratio obtained from truck transport (5.77:1) will be applied for 1978.

Furthermore, the inherent variability of the data can be illustrated by setting 95% confidence intervals around the mean and the variance of the transport/control ratios. The 95% confidence interval for the mean transport/control ratio of spring chinook ($\bar{x}$ = 3.Ø9) is -3.99:1 to 1Ø.18:1. The 95% confidence interval around the variance of 4.96 is 1.59 to 68.9Ø.

B) Crediting of Transported Smolts in System Survival

The number of returning adult fish is a function of three survival rates: (1) in-river survival during outmigration, (2) ocean survival, and (3) adult survival during the upriver migration. By assuming values for river survival rates for both outmigration and return migration, and using the return/release data for Rapid River Hatchery, an estimate of ocean survival can be obtained.

$$\text{Ocean Survival} = \text{Rapid River Ret/Rel} \div \text{Upriver Survival} \div \text{Outmigration Survival} \quad (1)$$

Assumptions:

(1) Upriver adult survival is considered to be .91/dam in the Columbia and .96/dam in the Snake. Upriver survival for the eight dams equals .5824.

(2) Outmigration survival for Bonneville project = .85. This value is used to expand available data for outmigration survival to The Dalles to outmigration survival to below Bonneville.

The following tables (3 and 4) estimate ocean survival for the pre- and post- transportion years using equation (1).

Table 3. Pre-Transportion Ocean Survival

Year of Outmigration	Survival to The Dalles2/	Bvl	Rapid River Return/Release	Ocean Survival
1972	.15	.127	.0014	.019
1973	.05	.043	.0023	.092
1974	.40	.340	.0029	.015

2/ 1972 from Raymond, 1979
1973-74 from Sims & Ossiander, 1981

Table 4. Post-Transportion Ocean Survival

Year of Outmigration	Survival to The Dalles3/	Bvl	Rapid River Return/Release	Ocean Survival
1975	.25	.212	.0056	.045
1976	.24	.204	.0024	.020
1977	.02	.017	.0003	.030
1978	.37	.315	.0014	.007
1979	.24	.204	.0024	.020

3/ 1975-79 from Sims and Ossiander, 1981.

The value for ocean survival pre-transportation ranged from 0.015 to 0.092 with a mean of 0.042, while the ocean survival post-transportation ranged from 0.007 to 0.045 with a mean value of 0.024. If the ocean survival for the years 1972 to 1976 is calculated (to expand the data set during which little or no transportation took place) the mean ocean survival = 0.038.

Table 5 displays the number of transported fish that would be predicted to return to Bonneville if the only losses of fish were due to transportation (.98 survival) and ocean mortality.

The number of fish predicted to return to below Bonneville Dam is calculated using the number of fish hauled from Lower Granite and Little Goose Dams (column 2)(Athearn, in Corps, 1985) and multiplying by transportation survival (column 4) and by ocean survival (column 5). Two values are employed for ocean survival; (a) the value calculated in Table 4 for the particular year in question; and (b) an average value (0.038) calculated for the years 1972-1976 during which little or no transportation took place. The 1977 smolt release yielded too few returns on which to make accurate estimates of adult numbers. It was therefore disregarded in any subsequent analyses.

Table 5. Number of fish predicted to return to Bonneville based on ocean survival rates

(1) Year of Outmigration	(2) # hauled LGR and Little Goose (Athearn, 1985)	(3) % Migration Hauled	(4) # Survived Transportation S_{Tr} = .98	(5) Predicted to Return to BVL (Col (4) x Ocean Surv) that year	Ave. 72-76
1975	414,000	10	405,720	18,257	15,417
1976	751,000	15	735,980	14,719	27,967
1978	1,623,000	51	1,590,540	11,133	60,440
1979	2,109,000	49	2,066,820	41,336	78,539

The following table (Table 6) displays the number of fish that would be expected to return to Lower Granite Dam (column 4) based on the number of transported fish (Athearn, in Corps 1985) and the estimated percent return as adults. The return as adults is calculated using the number of tagged adults recaptured and

the number of tagged juveniles released. The number of fish to Lower Granite is expanded by dividing the upriver survival rates to predict the number of fish that returned to Bonneville (column 5).

Table 6 . The number of fish calculated to return to Bonneville

(1) Year of Outmigration	(2) Estimated Return as Adults (%)	(3) # Fish Transported	(4) # Fish to LGR	(5) Returned to BVL
1975	1.746	414,000	7,228	12,410
1976	.072	751,000	540	928
1978	.225	1,623,000	4,057	6,966
1979	.301	2,109,000	6,348	10,899

The numbers of adults that returned to Bonneville calculated in Table 6 was then compared to the number of fish predicted to return to Bonneville in the previous table (Table 5) using the number of fish predicted from both the ocean survival for that year and the 72-76 average. For example:

Year: 1975

Hauled: 414,000

Hauled X S_T(.98) = 405,720

Predicted to return to Bonneville = 405,720 (.045) or 405,720 (.038) yielding 18,257 and 15,417 respectively.

Calculated return to Bonneville [(414,000)(1.746)]/.5824 = 12,410

$\frac{\text{Calculated}}{\text{Predicted}} = \frac{12,410}{18,257} = .68$ or a post transport loss = .32

Table 7. Calculated percent post-transportation loss.

Year of Outmigration	ADULT RETURN (calculated) (Table 6) / ADULTRETURN (predicted) (Table 5) That Year Ocean Surv.	72-76 Ave. Ocean Surv.	% POST TRANSPORT LOSS That Year	72-76 Ave.
1975	.68	.80	32	20
1976	.06	.03	94	97
1978	.63	.12	37	88
1979	.26	.14	74	86

The discrepancy between the predicted adult returns (Table 5) and the calculated adult returns (Table 6) can be attributed to post-transportation loss of transported fish. This loss occurs somewhere between the release of transported fish below Bonneville Dam during the outmigration and their return as adult fish. The loss is in addition to the ocean mortality that would be equally sustained by transported and non-transported fish.

Conclusions:

The above exercise clearly demonstrates the inappropriateness of applying full credit to transported fish in the calculation of overall system survival of juvenile fish. The available data suggests that transported fish must be credited downward anywhere from 20 to 97% or conversely, multiplied by a survival factor between 3 and 80%.

Consequently, any system survival methods which apply full credit to transported fish should be viewed with caution since it appears likely that these methods significatly overestimate system survival.

It is also clear that while the benefits of transportation for spring chinook may not be disregarded, the actual benefits cannot be ascertained from the data provided to date.

BIBLIOGRAPHY:

Comprehensive Report of Juvenile Salmonid Transportation, U.S. Army Corps of Engineers, April 1985.

Raymond, H.L., 1979. Effects of dams and impoundments of migrations of juvenile chinook salmon and steelhead from the Snake River, 1966 to 1975. Trans. Am. Fish. Soc. 108(6):565-579.

Sims, C.W. and F.J. Ossiander, 1981. Migrations of juvenile chinook salmon and steelhead in the Snake River, from 1973 to 1979. A research summary. Coastal Zone and Estuarine Studies Division, June.

APPENDIX B

Stephanie,

Here are my comments on the crediting paper. As we discussed on the phone, these are not official comments of the Corps. I did this work on my own, as I have become quite discouraged by the apparent rampant lack of objectivity by numerous groups and individuals when the transportation issue is discussed.

As you know, I was trained as a marine invertebrate ecologist and only began working with salmon in 1980. By that time, most of the research on transportation had been completed. I personally have nothing to gain or lose whether fish are transported or not. In my analysis, however, I have not seen any data that indicates that allowing spring chinook to transit the river will improve their survival over transporting them by barge to below Bonneville Dam. In my opinion, the lack of success in increasing spring chinook runs has been due to the quality of the fish that are released into the system, whether wild or hatchery. Specifically this relates to incidence of disease within the stocks and, particularly with hatchery fish, the low heterozygosity of the gene pool. Compounded with this has been a poor ocean environment into which they have entered. (Concomitant with the spring chinook decline since 1975 there has been a decline in coastal coho stocks and spring chinook stocks in the Rogue River, not all of which I believe was due to overharvesting.)

I would be happy to meet with you and discuss the attached comments, on an informal basis, at any time.

John

Comments on "Transportation Crediting in Modeling Exercises"

General comment: This paper appears to address only one side of the transportation issue and not in a scientific way. To quote Stephen Jay Gould (Harvard Professor teaching biology, geology, and the history of science) "In complex historical sciences like geology [and I would add in cases such as this], few situations can be as well controlled as ideal laboratory experiments. Biases are unavoidably and intrinsicly contained within available data. Since these biases cannot be removed, researchers must follow one cardinal rule-they must be sure that recognized biases lie in a direction that will make confirmation of their hypotheses less likely(for if sources of bias tend to support favored views, how can you know whether a positive result records a preferred explanation or simply the inherent bias)." The bias against transportation shows in this paper and no analaysis of the alternative is presented.

p.1, 3rd para. This paper proposes discounting smolts by "their potential return as adults", however, measuring the "potential" for most any biological system is very difficult, at best, if not impossible. Certainly if the methodology that the authors propose using here has any merit, it should be equally apolicable to nontranported fish as well as those that are transported. See below for its application to nontransported fish.

p. 2 & 3. The methodology presented to measure perceived "differences" (my quotes) in Rapid River returns between years with and without transportation at the upper Snake River dam is totally unsuppportable. A number of its flaws are as follows:

a. Some transportation occurred in all years except 1974.

b. Returns to Rapid River can not be differentiated to determine which were the result of transportation from which were the result of inriver migration.

c. Returns by year of outmigration are expected to be different in different years as flow conditions, quality of hatchery fish, levels of spill, etc. vary by year, sometimes dramatically. As examples, the number of turbines in the Snake system increased from 9 in 1972 to 24 in 1979, not to mention, that Lower Granite Dam was not even completed ugtil 1975. Additionally average flows past Ice Harbor Dam during the spring chinook outmigration ranged from 40kcfs to 158kcfs.

Thus there is no justification to assume that all years should have equal returns, and if this can not be disproved, then conclude that transportation does not have a positive benefit over inriver migration.

p3. Transportation is espoused on the basis of research since 1968, not just on the last four years of transport/control ratios. Although the attached review by Douglas Chapman, Consulting Statistician and Dean of the College of Fisheries at The University of Washington, of transportation for the years 1971-78 points out some areas that needed further study, it indicated specifically that transportation was beneficial over instream migration.

p4, top. Although one year, 1976, had less than 1:1 ratio, it was also with truck transportation. Present operational procedures use barges whenever all but a small number of smolts are present. All transport studies with barged fish have indicated a positive transport ratio when compared to the nontransported fish.

p4, middle. There actually was a control group of fish released from Lower Granite Dam in 1978 (although it was smaller than other release numbers; 8,249). The estimated adult return from that group was 0.109 %. This would lead to a transport control ratio of 2.06:1 and 3.19:1 for trucked and barged fish, respectively.

p4, bottom. If the Lower Granite 1978 values were used, it would decrease the confidence intervals about the mean and the variance of the transport/control ratios. HOWEVER, this whole exercise is fruitless. One would expect a large variance in returns/year when conditions of the fish or the river varied between years (see comment c. above). The yearly transport tests can not be considered as replicates. Only within year differences are measurable AND meaningful.

p7, to the end. To indicate the merit of the proposed method for crediting transported smolts, the same methodology was applied to the non-transported smolts. Comments are made on the method outlined, with results of the new analysis as follows:

a. The method for obtaining "ocean survival"(my quotes) (equation 1, middle p7) was used.

b. The assumptions, bottom p7, were used.

c. Table 3. and 4. do not actually represent pre- and post- transportation as 5% and 7% of the fish were transported in 1972 and 1973, respectively. There is no way to determine whether the returns were transported or not. Nonetheless, the mean "ocean survival" levels generated were used.

d. A new table was generated for nontransported fish using data from Tables 3 and 4 as follows:

Table 5a. Number of fish predicted to return to Bonneville Dam based upon ocean survival rates.

(1) Yr. of outmigration	(2) # in river (total fish to upper dam minus # hauled from Table 5.)	(3) % migration in river	(4) survival to below Bonn. (Col. 2 times surv. to below Bonn. table 4)	(5) predicted return to BVL (Col. 4 X ocean survival) that yr.	73-78 ave.
1975	3,72a,000	90	794,910	35,545	30,01a
1976	4,25a,000	85	868,180	17,368	33,490
1977	1,555,000	49	491,090	8,457	18,841
1978	2,155,000	51	447,780	8,955	17,015

e. Table 6, column 3. should have used the number of fish predicted to survive to below Bonneville Dam (see column 4, Table 5) to determine calculated returns to Bonneville. A new Table 6a (below) was generated to calculate adult returns to Bonneville Dam from the nontransported fish in each outmigration determined in Table 5a. Two values are used for 1978, one based upon return rates for Little Goose controls and the other on return rates for Lower Granite controls. Values used for estimated adult returns were from Table 2, with the exception of the 1978 Lower Granite control which was from Park et al. 1979, report to Corps of Engineers, "Transportation activities and related research at Lower Granite, Little Goose, and McNary dams, 1978."

Table 6a. Number of nontransported fish calculated to return to Bonneville Dam.

(1) Yr of out-migration	(2) Estimated return as adults (%)	(3) # of non-transported fish below BVL	(4) # fish to LGR	(5) Returned to Bonneville
1975	0.861	789,910	6,801	11,677
1976	0.109	869,160	946	1,624
*1978	0.109	491,090	535	919
**1978	0.039	491,090	192	330
1979	0.077	447,780	344	591

* Lower Granite control
**Little Goose control

f. A new Table 7a was generated by the same methodolgy used for Table 7 as follows:

Table 7a. Calculated percent post-Bonneville loss of nontransported fish.

Yr of out-migration	ADULT RETURN (calculated)(Table 6a) / ADULT RETURN (predicted) (Table 5a) That year ocean survival	72-76 Average ocean survival	% post Bonneville loss of nontransported fish that yr.	72-76 ave.
1975	.33	.39	67	61
1976	.09	.05	91	95
*1978	.27	.05	73	95
**1978	.10	.02	90	98
1979	.07	.03	93	97

* Lower Granite control
**Little Goose control

The discrepancy between the predicted adult returns (Table 5a) and the calculated adult returns (Table 6a) is greater in the case of nontransported fish than it is in the case of transported fish (Table 7a compared with Table 7). Methodologies to generate the results in both cases were exactly the same and both were based upon the same data base. The following table was generated to compare the ratio of the % post Bonneville Dam losses between the transported and nontransported fish:

Table 8. Comparison of post Bonneville losses expressed as a ratio of transported to nontransported fish.

yr of out migration	% post Bonneville transport loss (Table 7) / % post Bonneville nontransport loss(Table 7a) that year	72-76 average
1975	2.09:1	3.05:1
1976	0.97:1	0.98:1
*1978	1.97:1	1.09:1
**1978	2.43:1	1.11:1
1979	1.26:1	1.13:1

Conclusions:

The above exercise clearly demonstrates the lack of precision in the methods presented to determine what credit should be applied to transportation. Using the same data and analysis procedures for both transported and nontransported fish, a descrepancy occurs between the number of adult fish calculated to return to Bonneville Dam from juveniles calculated to survive to below the dam (whether through transport or nontransport) as compared to the number of adults predicted to return. The paper attempts to build the case that transportation should not be given full credit because survival of transported fish is overestimated, when, in fact, the methodology would indicate that there is an even greater loss of nontransported fish than transported fish. The comparison of transported to nontransported fish within a given year, as presented by Park (1985), is a much more sound analysis. Further, when comparing the additional loss of nontransported fish over transported fish (Table 8), benefits to the transported fish in comparison are somewhat equivalent to those presented in Table 2 (from Park 1985). Under either analysis, except for 1976 truck data, all indications are that even though total returns to the river are exceedingly low for either group, there are benefits to transporting fish rather than allowing them to migrate down the river. Although it has been hoped that transportation would provide benefits to spring chinook equivalent to those measured in steelhead and fall chinook, at this time the benefits, although positive, have not been that great. In any case, however, transportation of juveniles would appear to provide the best possibility for increasing adult returns.

John G. Williams
Fisheries Biologist

APPENDIX C

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Northwest & Alaska Fisheries Center
Coastal Zone & Estuarine Studies Division
2725 Montlake Boulevard East
Seattle, Washington 98112

March 10, 1986 F/NWC5:WJE

Mr. Robert Saxvik
Chairman, Northwest Power Planning Council
850 S.W. Broadway, Suite 1100
Portland, Oregon 97205

Dear Chairman Saxvik:

I recently received a copy of the letter of 24 January to you from Mr. Tim Wapato and Dr. John Donaldson. In this letter, Columbia River system survival and transportation are discussed and a scenario entitled "Transportation Crediting in Modeling Exercises" is included as Attachment 1. Since the anonymous author of Attachment I improperly interprets, misuses, and generally casts a shadow on the credibility of three separate research reports prepared by this Division of NMFS, I feel compelled to comment.

A. Section I - Rapid River Hatchery Return Per Release of Spring Chinook

The attempt to use Rapid River return data from 1972 to 1982 to provide an alternative analysis of the effect of transportation on Snake River stocks of spring chinook is inappropriate and seriously flawed for the following reasons:

1. The Rapid River hatchery stock of spring chinook does not represent the mixed stocks of fish used in the transportation experiments conducted by Park (1985), especially in the earlier years 1972 to 1976.

2. Some transportation occurred in all years except 1974.

3. Returns to Rapid River for all years when unmarked fish were transported cannot be differentiated to determine unmarked returns which were the result of transportation from those which were the result of inriver migration.

4. Environmental conditions in the river vary substantially from year to year as does quality of the hatchery fish. Thus, returns would be expected to vary significantly independent of whether fish were transported or not. For example, turbines in the Snake River system increased from 9 in 1972 to 24 in 1979. This change alone is a factor that would probably override all other factors for this period in determining percentage return of spring chinook to the Snake River by years. In addition, the analyst has chosen to select only Rapid River returns since 1972. If one examines <u>all</u> Rapid River data since 1966 it is clear that a serious down-trend in return rates was establish prior to 1972. Obviously the downturn had nothing to do with transportation.

B. Section II - Transport/Control Ratio's Analysis

The analyst's assumption that unmarked populations respond to transportation and in-river passage in a "similar fashion" to marked fish is misleading. It is not valid to make survival comparisons of marked and unmarked populations. Marking causes stress and mortality that does not occur in the unmarked populations. Therefore, marked groups in Park's report cannot be applied to any estimates of returns in unmarked populations.

There is no logical argument for expecting consistency (non-variability) in transport/control ratios. In fact, one would expect that transport to control ratios would vary as does each year's environmental conditions in the rivers. For example, in 1977 (a year of extreme low water) no controls returned, resulting in an incalcuable high transport/control ratio. By contrast, in 1975 (a year when smolt migration conditions, and presumably smolt quality, were good), the transport/control ratio was only 2:1. The result was that large numbers of transported and nontransported fish returned.

The transportation data accumulated so far overwhelmingly suggest that in years when transport/control ratios are low (1.5 to 3:1) the return rates are highest. The importance of transport/control ratios is that they provide an indication of the expected benefits (if any) from transportation. Variance in ratios should be expected as environmental conditions in the river vary.

C. Crediting of Transported Smolts

This analysis is also replete with incorrect assumptions and improper use of data, but it is an interesting exercise. I found that if I used the same assumptions and rationale and applied it to the nontransported fish to calculate the percent post-Bonneville loss of nontransported fish, the discrepancy between the predicted adult returns and the calculated adult returns is greater in the case of nontransported fish than it is in the case of transported fish.

The exercise presented by the author clearly demonstrates the lack of precision in the methods presented to determine what credit should be applied to transportation. Using the same data and analysis procedures for both transported and nontransported fish, a discrepancy occurs between the number of adult fish calculated to return to Bonneville Dam from juveniles calculated to survive below the dam (whether through transport or nontransport) as compared to the number of adults predicted to return. The paper attempts to build the case that transportation should not be given full credit because survival of transported fish is overestimated, when, in fact, the methodology would indicate that there is an even greater loss of nontransported fish than transported fish. The comparison of transported to nontransported fish within a given year, as presented by Park (1985), is a much more sound analysis.

There is mounting evidence that disease and especially BKD is activated in spring chinook salmon smolts when they enter seawater. Bower et al. (1982) found that 45 to 81% mortality occurred in 180 days following seawater entry. Mortality was attributed to BKD. More recently, Park et al. (1986) found that approximately 80% of all mortality in 140 days of artificial seawater rearing was attributable to BKD. The experimentation occurred at Lower Granite Dam using Snake River chinook salmon of mixed stocks migrating at the dam. Therefore, early ocean mortality due to BKD is likely far more important than post Bonneville Dam in-river mortality and the effect is equally important on all populations whether transported or not.

In summary, the analyses put forth in Attachment 1 of the letter to you dated 24 January 1976 are inappropriate and seriously flawed.

Sincerely yours,

Wesley J. Ebel

Wesley J. Ebel, PhD
Division Director

APPENDIX D

COLUMBIA BASIN FISH AND WILDLIFE COUNCIL
LLOYD BUILDING • SUITE 1240
700 N. E. MULTNOMAH STREET
PORTLAND, OREGON 97232

(503) 231-2241
FTS 429-2241

May 21, 1986

MEMORANDUM FOR: Directors, CBFWC

FROM: Dale R. Evans, Chairman
CBFWC Working Group

SUBJECT: Transportation of Smolts

In a letter of January 24, 1986 to Chairman Robert Saxvik, jointly signed by Mr. Tim Wapato for the Columbia River Inter-Tribal Fish Commission and Dr. John Donaldson for the Columbia Basin Fish and Wildlife Council, we provided the Northwest Power Planning Council with a discussion of fish transportation in an enclosure entitled "Transportation Crediting in Modeling Exercises." In a subsequent review of that discussion by the National Marine Fisheries Service's Northwest and Alaska Fisheries Center, Coastal Zone and Estuarine Studies Division a number of concerns were raised about interpretation of NMFS data and about the validity of certain assumptions and analyses that brought those data into question.

Following, for your information and review, are their comments.

A. Section I - Rapid River Hatchery Return Per Release of Spring Chinook.

The attempt to use Rapid River return data from 1972 to 1982 to provide an alternative analysis of the effect of transportation on Snake River stocks of spring chinook is inappropriate for the following reasons:

1. The Rapid River hatchery stock of spring chinook does not represent the mixed stocks of fish used in the transportation experiments conducted by Park (1985), especially in the earlier years 1972 to 1976.

2. Some transportation occurred in all years except 1974.

3. Returns to Rapid River for all years when unmarked fish were transported cannot be differentiated between the unmarked returns which were the result of transportation and those which were the result of inriver migration.

4. Environmental conditions in the river vary

substantially from year to year as does quality of the hatchery fish. Thus, returns would be expected to vary significantly independent of whether fish were transported or not. For example, turbines in the Snake River system increased from 9 in 1972 to 24 in 1979. This change alone is a factor that would probably override all other factors for this period in determining percentage return of spring chinook to the Snake River by years. In addition, the analyst has chosen to select only Rapid River returns since 1972. If one examines all Rapid River data since 1966 it is clear that a serious down-trend in return rates was establish prior to 1972.

B. Section II - Transport/Control Ratio's Analysis

The analyst states, "it is assumed that the unmarked population responds to transportation and in-river passage in a similar fashion to marked fish." This is incorrect. The assumption inherent in use of the transport/control ratios is instead that the effect of the mark on the transported population is no different than the effect of the mark on the control population so than any difference in survival can be attributed to the treatment (i.e. transport versus control). It is not valid to make survival comparisons of marked and unmarked populations. Marking causes stress and mortality that does not occur in the unmarked populations. Therefore, marked groups in Park's report cannot be directly compared to any estimates of returns in unmarked populations.

There is no logical argument for expecting consistency (non-variability) in transport/control ratios. In fact, one would expect that transport to control ratios would vary as does each year's environmental conditions in the rivers. For example, in 1977 (a year of extreme low water) no controls returned, resulting in an incalculable high transport/control ratio even though only one transport fish returned.

The transportation data accumulated so far suggest that in years when transport/control ratios are low (1.5 to 3:1) the return rates are highest. The importance of transport/control ratios is that they provide an indication of the expected benefits (if any) from transportation. Variance in ratios should be expected as environmental conditions in the river vary.

C. Crediting of Transported Smolts

While the analysis depends largely on a number of data that are of questionable validity, it is nonetheless an interesting exercise. We found that by using the same assumptions and rationale and applying them to the non-transported fish, the discrepancy between the predicted adult returns and the calculated adult returns is greater than it is in the case of transported fish.

Clearly there is a lack of precision in the methods presented to determine what credit should be applied to transportation. Using the same data and analysis procedures for both transported and non-transported fish, a discrepancy occurs between the number of adult fish calculated to return to Bonneville Dam from juveniles calculated to survive below the dam (whether transported or not non-transported) as compared to the number of adults predicted to return. The paper attempts to build the case that transportation should not be given full credit because survival of transported fish is overestimated, when, it fact, the methodology would indicate that there is an even greater loss of non-transported fish than transported fish. The comparison of transported to non-transported fish within a given year, as presented by Park (1985), is a much more sound analysis.

There is mounting evidence that disease, especially BKD is activated in spring chinook salmon smolts when they enter seawater. Bower et al. (1982) found that 45 to 81 percent mortality occurred in 180 days following seawater entry. Mortality was attributed to BKD. More recently, Park et al. (1986) found that approximately 80 percent of mortality in 140 days of artificial seawater rearing was attributable to BKD. The experimentation occurred at Lower Granite Dam using Snake River chinook salmon of mixed stocks migrating at the dam. Therefore, early ocean mortality due to BKD is likely far more important than post Bonneville Dam in-river mortality and the effect is equally important on all populations whether transported or not.

I hope that this critique is of value to you in your further review of transportation data. Dr. Wesley Ebel, Director, Coastal Zone and Estuarine Studies Division has suggested we may wish to supplement our January 24 correspondence to the Power Planning Council with these comments. Please let me have your thoughts on

this matter. For any further explanation of these comments please feel free to contact Dr. Ebel at (206) 442-4445.

cc: CBFWC - Martinson
CRITFC - Wapato
NWAFC - Ebel

APPENDIX E

The following are specific responses to the informal comments (appendix B) of Mr. John Williams, Fisheries Biologist, Portland District Army Corps of Engineers. It would be helpful to have Attachment 1 (appendix A), and Mr. Williams' letter available when reviewing these responses.

General Comment: The basic premise that good experimental design eliminates bias is true. However, the experiments have already been performed. Therefore, we have no means by which to bias the results.

page 1, 2nd para. The word potential can be interpreted in several different ways. The way it was applied in this paper was to refer to that which "has not come." See below for its application to non-transported fish.

page 1, 3rd para. The statement made was "the positive benefits of transportation can not be statistically demonstrated with the Rapid River return/release data." No reference was made to the positive benefits of in-river migration.

The following points were being addressed by this section of the analysis:

1) Indeed there is no reason to assume that all years would have the same magnitude of benefits from transportation since there are widely varying environmental conditions from year to year. Therefore, applying a constant credit ratio in modeling exercises would not be justified given the current data.

2) The review of transportation from 1971-1973 by Doug Chapman represents a well executed statistical analysis of some previously collected data. He does recommend that "If mass transportation is accepted as a routine procedure, it should be carried out in conjunction with a series of well designed experiments (a) to improve the estimate of benefits from such transportation..." However, to date there have been insufficient returns of control fish (except for 1975) with which to predict the percentage return as adults. (Note that at least 20-52 control fish returned as adults from the 1971-73 outmigrations whereas, only from 0-11 control adults returned from the 1976-1980 outmigrations). It is apparent that future experiments need some modification in terms of the number of smolts tagged if the question of positive benefits from transportation to spring chinook will ever be answered.

page 2, 1st para. The studies of trucked vs. barged fish showed no difference in the percent return as adults for steelhead or fall chinook. In 1978 significantly more barged fish returned than trucked fish. However, according to the author this study should be repeated since it was only conducted for one year.

page 2 , 2nd and 3rd para. Again, maybe the point being made was not clear, however applying a constant credit for transportation in a modeling exercise would be incorrect for the reasons mentioned. The attempt to illustrate this was obviously not clearly defined.

page 2, to the end. Your application of method to the analysis of non-transported fish is certainly valid and further presented here.

a) Table 5a is acceptable as is and therefore was not reproduced.

b) Table 6a has been recalculated using the number of total fish at the upper dam minus the number of fish hauled. The estimated return as adults for the control is based on return to Lower Granite Dam of fish which were released at Lower Granite Dam. This percentage return as adults includes any loss incurred during outmigration. The miscalculation in Mr. Williams' analysis occurred at this step where he multiplied the number of non-transported smolts at Lower Granite Dam by the average survival to Bonneville during outmigration. He then multiplied this number by the estimated return as adults reported in Park (1985). By applying both the outmigration survival and the estimated return he grossly underestimated the number of fish surviving below Bonneville Dam.

Table 6a. Number of non-transported fish calculated to return to Bonneville Dam.

(1)	(2)	(3)	(4)	(5)
Yr of out migration	Est. return as adults (%)	# fish non-trans (1000)	# fish to LGR	Returned to Bonneville
1975	0.861	3,726	32080	55084
1976	0.109	4,256	4639	7965
1978*	0.109	1,559	1699	2918
1978**	0.039	1,559	608	1044
1979	0.077	2,195	1690	2902

* Lower Granite Control
** Little Goose Control

c) A new Table 7a was generated by the same methodology used for Table 7 as follows:

Table 7a. Calculated percent post-Bonneville loss of nontransported fish.

Yr. of out migration	ADULT RETURN (calculated)(Table 6a) / ADULT RETURN (predicted) (Table 5a)		% post BVL loss of non-transported fish	
	That year ocean survival	72-76 Average ocean survival	that yr	72-76 Ave
1975	1.55	1.84	Ø	Ø
1976	Ø.46	Ø.24	54	76
1978*	Ø.85	Ø.16	15	84
1978**	Ø.30	Ø.06	70	94
1979	Ø.32	Ø.17	68	83

The discrepancy between the predicted adult returns (Table 5a) and the calculated adult returns is greater in all cases of transported fish than in non-transported fish, except when the Little Goose control was used in 1978. Methodologies to generate the results in both cases were exactly the same and were both based upon the same data base. The following table was generated to compare the ratio of the post Bonneville losses between the non-transported and transported fish. If the value for transported fish loss was greater than non-transported fish loss then the ratio would be less than 1 to 1. However, if more transported fish were lost then the ratio would be greater than 1 to 1.

Table 8. Comparison of post-Bonneville losses expressed as a ratio of non-transported to transported fish.

yr of out migration	% post BVL non-transport loss (Table 7a) / % post BVL transport loss (Table 7)	
	That year	72-76 Ave.
1975	Ø.ØØ:1	Ø.ØØ:1
1976	Ø.57:1	Ø.78:1
1978*	Ø.41:1	Ø.95:1
1978**	1.89:1	1.07:1
1979	Ø.92:1	Ø.96:1

Conclusions: The same conclusion drawn in the original document still holds true. With the exception of 1978 when the Little Goose control is used, transported fish do not appear to survive at the same rate as non-transported fish once they are below Bonneville Dam (i.e., all values are less than 1 to 1). Therefore, while the magnitude of the variation can not be precisely defined, the application of full credit to transported fish in modeling exercises can not be supported.

ATTACHMENT "B"

COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION
975 S.E. Sandy Boulevard, Suite 202, Portland, Oregon 97214 Telephone (503) 238-0667

August 4, 1986

Attachment
TIE-1-87

Stephen Smith, Chief
Systems Integration Branch
Division of Fish and Wildlife
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

Dear Steve:

Upon reviewing the supplemental Environmental Assessment regarding the D.C. Terminal Expansion, we have determined that certain additional FISHPASS model output may be essential to make informed comments on August 8. We spoke to Jim Geiselman of your staff about this last week. Jim indicated an approximate two day turn around for additional FISHPASS runs at that time. We are making this request while fully aware of the difficulties in completing the additional model runs.

Specifically, we are interested in obtaining:

a) A run with and without D.C. expansion where FISHPASS coefficients for turbine mortality and fish guidance efficiency are modified in accordance with tables 1 and 2 respectively.

b) A run with and without D.C. expansion where FISHPASS coefficients for turbine mortality, fish guidance efficiency, spill efficiency, and transport mortality are modified in accordance with tables 1, 2, 3, and 4 respectively.

TABLE 1.

Turbine mortality: Rock Island Dam 11% (turbine survival .89)
All other dams 15% (turbine survival .85)

TABLE 2.

Fish Guidance Efficiency

Project	Yearlng	Subyrling	Stlhd	Sockeye
LGR	.50	.50	.74	--
LGS	.50	.50	.74	--
LMN	.025	.025	.025	--
IHR (sluice)	.23	.23	.23	--
MCN	.74	.38	.76	.74
JDA	.72	.20	.72	.72
TDA	.25	.25	.25	.25
BVL1	.76	.72	.76	.76
BVL2	.19	.24	.35	.19

TABLE 3.

Spill Efficiency

Project	(Ratio Fish:Spill) y=fish, x=spill
LGR, LGS, ICH, LMN, MCN, JDA, TDA, BVL 1&2	2:1
Wells	no change
Rocky Reach	y = 0.95x - 7.00
Rock Island	y = 0.942x + 11.3
Wanapum	y = 0.739x + 23.2
Priest Rapids	y = 0.923x - 13.5

TABLE 4.

Transport Mortality

Transport Project	Mortality
LGR	.67
LGS	.67
MCN	.33

Thank your for your cooperation in helping us obtain this information. If we can clarify our request so as to expedite its handling, we would be happy to meet with you and/or answer any questions. If you need further information, please contact Rob Lothrop, Stephanie Burchfield, or Margaret Filardo of the Commission staff.

Sincerely,

S. T. Wapato

S. Timothy Wapato,
Executive Director

ATTACHMENT "C"

Attachment TE-187

TABLE 1.

STATISTICAL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF HELLS POOL STOCKS

SHTEXNNA VS. SHTDCNNA

***** CONTRACT YEAR 1992 *****

ECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
RLING	SHTEXNNA	0.4017	0.3620	0.3770	0.4065	0.4195	0.4660	0.0033	0.0019		0.0000 0.0350
	SHTDCNNA	0.3984	0.3500	0.3762	0.4060	0.4187	0.4310				
-YEARLING	SHTEXNNA	0.2082	0.1370	0.1697	0.2075	0.2532	0.2860	0.0037	0.0013	*	0.0000 0.0190
	SHTDCNNA	0.2044	0.1370	0.1667	0.2075	0.2397	0.2670				
ELHEAD	SHTEXNNA	0.3878	0.3440	0.3667	0.3910	0.4020	0.4460	0.0034	0.0020		0.0000 0.0360
	SHTDCNNA	0.3844	0.3370	0.3585	0.3910	0.4020	0.4100				
KEYE	SHTEXNNA	0.3912	0.3510	0.3682	0.3960	0.4090	0.4510	0.0028	0.0016		0.0000 0.0280
	SHTDCNNA	0.3884	0.3440	0.3660	0.3950	0.4082	0.4230				

***** CONTRACT YEAR 1997 *****

ECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
RLING	SHTEXNNA	0.3902	0.3620	0.3705	0.3920	0.4035	0.4180	0.0015	0.0008		0.0000 0.0130
	SHTDCNNA	0.3887	0.3510	0.3675	0.3920	0.4035	0.4180				
-YEARLING	SHTEXNNA	0.2019	0.1330	0.1497	0.2105	0.2397	0.2860	0.0044	0.0016	*	0.0000 0.0240
	SHTDCNNA	0.1975	0.1330	0.1497	0.2105	0.2360	0.2720				
ELHEAD	SHTEXNNA	0.3784	0.3410	0.3610	0.3840	0.3920	0.4070	0.0011	0.0006		0.0000 0.0090
	SHTDCNNA	0.3772	0.3400	0.3572	0.3840	0.3920	0.4070				
KEYE	SHTEXNNA	0.3795	0.3550	0.3622	0.3775	0.3940	0.4080	0.0017	0.0007	*	0.0000 0.0110
	SHTDCNNA	0.3779	0.3470	0.3592	0.3760	0.3932	0.4080				

***** CONTRACT YEAR 2002 *****

ECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
RLING	SHTEXNNA	0.3980	0.3590	0.3807	0.4015	0.4147	0.4340	0.0035	0.0013	*	-.0050 0.0170
	SHTDCNNA	0.3945	0.3510	0.3735	0.3995	0.4132	0.4340				
-YEARLING	SHTEXNNA	0.2008	0.1380	0.1615	0.1880	0.2365	0.2770	0.0038	0.0014	*	0.0000 0.0230
	SHTDCNNA	0.1970	0.1380	0.1602	0.1835	0.2365	0.2640				
ELHEAD	SHTEXNNA	0.3844	0.3410	0.3642	0.3880	0.4010	0.4290	0.0036	0.0015	*	-.0030 0.0230
	SHTDCNNA	0.3808	0.3360	0.3567	0.3880	0.4022	0.4150				
KEYE	SHTEXNNA	0.3872	0.3540	0.3702	0.3920	0.4035	0.4250	0.0030	0.0011	*	-.0050 0.0150
	SHTDCNNA	0.3842	0.3480	0.3665	0.3890	0.4005	0.4250				

TABLE 2.

SPILL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF ROCK ISLAND POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.4704	0.4030	0.4310	0.4675	0.5100	0.5670	0.0018	0.0010		0.0000 0.0150
	SHTDCNNA	0.4685	0.3980	0.4310	0.4670	0.5100	0.5550				
SUB-YEARLING	SHTEXNNA	0.3029	0.2160	0.2775	0.3140	0.3335	0.3510	0.0020	0.0006	*	0.0000 0.0080
	SHTDCNNA	0.3009	0.2160	0.2755	0.3140	0.3312	0.3470				
STEELHEAD	SHTEXNNA	0.4657	0.4140	0.4332	0.4550	0.4955	0.5520	0.0018	0.0014		0.0000 0.0270
	SHTDCNNA	0.4639	0.4140	0.4312	0.4550	0.4955	0.5250				
SOCKEYE	SHTEXNNA	0.4987	0.4010	0.4695	0.4995	0.5295	0.5780	0.0020	0.0014		-.0010 0.0210
	SHTDCNNA	0.4967	0.3980	0.4685	0.4995	0.5295	0.5570				

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.4690	0.4060	0.4292	0.4345	0.4700	0.5220	0.0016	0.0009	*	0.0000 0.0150
	SHTDCNNA	0.4674	0.4060	0.4285	0.4345	0.4697	0.5220				
SUB-YEARLING	SHTEXNNA	0.2931	0.2120	0.2372	0.3100	0.3395	0.3600	0.0022	0.0007	*	0.0000 0.0100
	SHTDCNNA	0.2908	0.2120	0.2372	0.3100	0.3377	0.3550				
STEELHEAD	SHTEXNNA	0.4457	0.4170	0.4292	0.4460	0.4550	0.5110	0.0005	0.0005		0.0000 0.0090
	SHTDCNNA	0.4452	0.4170	0.4292	0.4445	0.4550	0.5110				
SOCKEYE	SHTEXNNA	0.4796	0.4070	0.4640	0.4855	0.5057	0.5430	0.0011	0.0005	*	0.0000 0.0080
	SHTDCNNA	0.4785	0.4010	0.4580	0.4855	0.5057	0.5430				

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.4664	0.4090	0.4372	0.4685	0.4925	0.5550	0.0030	0.0014	*	0.0000 0.0230
	SHTDCNNA	0.4634	0.4090	0.4372	0.4660	0.4822	0.5550				
SUB-YEARLING	SHTEXNNA	0.2951	0.2180	0.2635	0.2975	0.3282	0.3620	0.0025	0.0008	*	0.0000 0.0100
	SHTDCNNA	0.2926	0.2180	0.2632	0.2930	0.3267	0.3520				
STEELHEAD	SHTEXNNA	0.4611	0.4220	0.4425	0.4535	0.4772	0.5260	0.0028	0.0015		0.0000 0.0270
	SHTDCNNA	0.4583	0.4220	0.4370	0.4535	0.4772	0.5260				
SOCKEYE	SHTEXNNA	0.4921	0.4040	0.4720	0.4965	0.5272	0.5610	0.0016	0.0007	*	-.0030 0.0090
	SHTDCNNA	0.4905	0.4000	0.4705	0.4980	0.5240	0.5610				

TABLE 3.

SPILL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF ROCKY REACH POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXHMA	0.3961	0.3330	0.3642	0.3995	0.4257	0.4770	0.0022	0.0014		0.0000
	SHTDCHMA	0.3939	0.3330	0.3642	0.3935	0.4257	0.4520				0.0250
SUB-YEARLING	SHTEXHMA	0.3246	0.2350	0.3155	0.3345	0.3467	0.3790	0.0027	0.0010	*	0.0000
	SHTDCHMA	0.3220	0.2350	0.3070	0.3335	0.3460	0.3630				0.0160
STEELHEAD	SHTEXHMA	0.4334	0.3970	0.4120	0.4310	0.4495	0.4980	0.0019	0.0013		-.0020
	SHTDCHMA	0.4315	0.3920	0.4102	0.4310	0.4500	0.4730				0.0250
SOCKEYE	SHTEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXHMA	0.3809	0.3370	0.3592	0.3770	0.4040	0.4370	0.0012	0.0008		0.0000
	SHTDCHMA	0.3797	0.3370	0.3592	0.3770	0.4040	0.4370				0.0150
SUB-YEARLING	SHTEXHMA	0.3050	0.2280	0.2645	0.3185	0.3362	0.3480	0.0019	0.0006	*	0.0000
	SHTDCHMA	0.3031	0.2280	0.2630	0.3170	0.3340	0.3440				0.0100
STEELHEAD	SHTEXHMA	0.4185	0.3970	0.4057	0.4145	0.4315	0.4500	0.0012	0.0006		0.0000
	SHTDCHMA	0.4173	0.3880	0.4057	0.4115	0.4315	0.4500				0.0090
SOCKEYE	SHTEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXHMA	0.3934	0.3370	0.3742	0.3930	0.4192	0.4520	0.0032	0.0017		-.0010
	SHTDCHMA	0.3902	0.3370	0.3705	0.3915	0.4042	0.4520				0.0260
SUB-YEARLING	SHTEXHMA	0.3201	0.2400	0.3050	0.3315	0.3400	0.3730	0.0026	0.0010	*	-.0070
	SHTDCHMA	0.3175	0.2400	0.3030	0.3290	0.3385	0.3730				0.0100
STEELHEAD	SHTEXHMA	0.4284	0.4030	0.4130	0.4265	0.4392	0.4700	0.0033	0.0011	*	-.0030
	SHTDCHMA	0.4251	0.3930	0.4122	0.4220	0.4392	0.4700				0.0170
SOCKEYE	SHTEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

TABLE 4.

SURVIVAL OF LOWER GRANITE POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXHMA	0.7634	0.7480	0.7512	0.7590	0.7760	0.7930	0.0002	0.0001		0.0000
	SHTDCHMA	0.7632	0.7480	0.7512	0.7585	0.7760	0.7930				0.0010
SUB-YEARLING	SHTEXHMA	0.7501	0.7210	0.7425	0.7500	0.7592	0.7840	0.0003	0.0001	*	0.0000
	SHTDCHMA	0.7498	0.7210	0.7417	0.7500	0.7592	0.7830				0.0010
STEELHEAD	SHTEXHMA	0.9043	0.8730	0.9022	0.9080	0.9100	0.9130	0.0001	0.0001		0.0000
	SHTDCHMA	0.9042	0.8730	0.9022	0.9080	0.9100	0.9130				0.0010
SOCKEYE	SHTEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXHMA	0.7562	0.7400	0.7412	0.7565	0.7637	0.7840	0.0002	0.0001		0.0000
	SHTDCHMA	0.7560	0.7400	0.7412	0.7565	0.7637	0.7840				0.0010
SUB-YEARLING	SHTEXHMA	0.7549	0.7340	0.7400	0.7505	0.7630	0.7930	0.0002	0.0001		0.0000
	SHTDCHMA	0.7547	0.7340	0.7400	0.7505	0.7630	0.7920				0.0010
STEELHEAD	SHTEXHMA	0.9009	0.8720	0.9012	0.9050	0.9075	0.9120	0.0000	0.0000		0.0000
	SHTDCHMA	0.9009	0.8720	0.9012	0.9050	0.9075	0.9120				0.0000
SOCKEYE	SHTEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXHMA	0.7618	0.7410	0.7522	0.7575	0.7760	0.7860	0.0003	0.0001	*	0.0000
	SHTDCHMA	0.7615	0.7410	0.7522	0.7575	0.7760	0.7840				0.0020
SUB-YEARLING	SHTEXHMA	0.7507	0.7210	0.7400	0.7490	0.7622	0.7930	0.0001	0.0001		0.0000
	SHTDCHMA	0.7506	0.7210	0.7400	0.7485	0.7622	0.7920				0.0010
STEELHEAD	SHTEXHMA	0.9018	0.8730	0.9002	0.9060	0.9080	0.9120	0.0000	0.0000		0.0000
	SHTDCHMA	0.9017	0.8730	0.9002	0.9060	0.9080	0.9120				0.0010
SOCKEYE	SHTEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

TABLE 5.

SPILL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF LOWER MONUMENTAL POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.4319	0.3560	0.3840	0.4355	0.4727	0.5210	0.0022	0.0013		0.0000
	SHTDCNNA	0.4297	0.3560	0.3840	0.4295	0.4695	0.5210				0.0200
SUB-YEARLING	SHTEXNNA	0.3418	0.2150	0.3002	0.3480	0.3935	0.4390	0.0021	0.0009	*	-.0020
	SHTDCNNA	0.3396	0.2150	0.2957	0.3455	0.3935	0.4390				0.0140
STEELHEAD	SHTEXNNA	0.4715	0.3930	0.4492	0.4670	0.4895	0.5500	0.0017	0.0012		0.0000
	SHTDCNNA	0.4698	0.3930	0.4492	0.4670	0.4895	0.5500				0.0220
SOCKEYE	SHTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.4133	0.3410	0.3555	0.4185	0.4565	0.5120	0.0011	0.0006		0.0000
	SHTDCNNA	0.4123	0.3410	0.3555	0.4185	0.4562	0.5120				0.0090
SUB-YEARLING	SHTEXNNA	0.3154	0.2000	0.2235	0.3390	0.3817	0.4090	0.0012	0.0004	*	0.0000
	SHTDCNNA	0.3142	0.2000	0.2235	0.3365	0.3815	0.4060				0.0070
STEELHEAD	SHTEXNNA	0.4573	0.3960	0.4300	0.4590	0.4735	0.5490	0.0005	0.0004		0.0000
	SHTDCNNA	0.4568	0.3960	0.4300	0.4590	0.4735	0.5490				0.0060
SOCKEYE	SHTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.4318	0.3550	0.3887	0.4330	0.4697	0.5190	0.0020	0.0007	*	-.0020
	SHTDCNNA	0.4298	0.3550	0.3880	0.4325	0.4675	0.5110				0.0090
SUB-YEARLING	SHTEXNNA	0.3359	0.2180	0.2990	0.3370	0.3932	0.4140	0.0020	0.0009	*	-.0020
	SHTDCNNA	0.3340	0.2180	0.2985	0.3380	0.3935	0.4110				0.0170
STEELHEAD	SHTEXNNA	0.4717	0.4280	0.4412	0.4640	0.4950	0.5510	0.0008	0.0006		-.0050
	SHTDCNNA	0.4709	0.4280	0.4412	0.4650	0.4950	0.5490				0.0100
SOCKEYE	SHTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

TABLE 6.

SPILL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF MCNARY POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.6576	0.5730	0.6190	0.6520	0.7037	0.7490	0.0015	0.0006	*	0.0000
	SHTDCNNA	0.6561	0.5700	0.6175	0.6505	0.7037	0.7450				0.0110
SUB-YEARLING	SHTEXNNA	0.4443	0.3000	0.4372	0.4580	0.4877	0.4990	0.0013	0.0004	*	0.0000
	SHTDCNNA	0.4430	0.3000	0.4362	0.4580	0.4860	0.4950				0.0060
STEELHEAD	SHTEXNNA	0.7061	0.6280	0.6785	0.7030	0.7367	0.7680	0.0011	0.0006		0.0000
	SHTDCNNA	0.7050	0.6280	0.6785	0.7030	0.7367	0.7610				0.0100
SOCKEYE	SHTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.6394	0.5730	0.6257	0.6365	0.6595	0.7160	0.0004	0.0002		0.0000
	SHTDCNNA	0.6390	0.5730	0.6257	0.6355	0.6580	0.7160				0.0020
SUB-YEARLING	SHTEXNNA	0.4336	0.2970	0.3487	0.4635	0.4900	0.5220	0.0007	0.0003	*	0.0000
	SHTDCNNA	0.4329	0.2970	0.3487	0.4630	0.4900	0.5180				0.0050
STEELHEAD	SHTEXNNA	0.6943	0.6180	0.6832	0.7005	0.7100	0.7580	0.0001	0.0001		0.0000
	SHTDCNNA	0.6943	0.6180	0.6832	0.7005	0.7100	0.7580				0.0010
SOCKEYE	SHTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SHTEXNNA	0.6510	0.5730	0.6272	0.6540	0.6777	0.7330	0.0008	0.0006		-.0060
	SHTDCNNA	0.6502	0.5720	0.6250	0.6555	0.6760	0.7330				0.0060
SUB-YEARLING	SHTEXNNA	0.4376	0.3070	0.4307	0.4550	0.4700	0.5280	0.0021	0.0009	*	-.0030
	SHTDCNNA	0.4355	0.3070	0.4307	0.4550	0.4650	0.5220				0.0140
STEELHEAD	SHTEXNNA	0.6993	0.6270	0.6837	0.7000	0.7312	0.7620	0.0014	0.0005	*	-.0010
	SHTDCNNA	0.6979	0.6270	0.6832	0.7005	0.7255	0.7620				0.0060
SOCKEYE	SHTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SHTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

TABLE 7.

SPILL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF THE DALLES POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SNTEXNNA	0.6366	0.5060	0.5537	0.6315	0.7165	0.7840	0.0041	0.0022		0.0000
	SNTDCNNA	0.6325	0.5060	0.5537	0.6265	0.7165	0.7450				0.0390
SUB-YEARLING	SNTEXNNA	0.5759	0.4490	0.5175	0.5780	0.6330	0.7050	0.0019	0.0006	*	0.0000
	SNTDCNNA	0.5740	0.4490	0.5160	0.5780	0.6317	0.7030				0.0080
STEELHEAD	SNTEXNNA	0.7103	0.5790	0.7037	0.7195	0.7362	0.7650	0.0022	0.0008	*	0.0000
	SNTDCNNA	0.7081	0.5790	0.7035	0.7170	0.7357	0.7650				0.0130
SOCKEYE	SNTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SNTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SNTEXNNA	0.6387	0.5520	0.5877	0.6190	0.7047	0.7550	0.0005	0.0002	*	0.0000
	SNTDCNNA	0.6382	0.5520	0.5877	0.6190	0.7045	0.7520				0.0030
SUB-YEARLING	SNTEXNNA	0.5637	0.4510	0.4842	0.5710	0.6307	0.7040	0.0013	0.0005	*	0.0000
	SNTDCNNA	0.5623	0.4510	0.4842	0.5705	0.6247	0.7010				0.0070
STEELHEAD	SNTEXNNA	0.6903	0.5860	0.6285	0.7045	0.7265	0.7900	0.0009	0.0004	*	0.0000
	SNTDCNNA	0.6894	0.5860	0.6285	0.7045	0.7265	0.7870				0.0050
SOCKEYE	SNTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SNTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SNTEXNNA	0.6431	0.5100	0.5745	0.6205	0.7282	0.7640	0.0035	0.0018		-.0040
	SNTDCNNA	0.6396	0.5100	0.5730	0.6205	0.7295	0.7660				0.0270
SUB-YEARLING	SNTEXNNA	0.5698	0.4530	0.5182	0.5515	0.6370	0.7050	0.0028	0.0009	*	0.0000
	SNTDCNNA	0.5669	0.4530	0.5150	0.5475	0.6370	0.7010				0.0140
STEELHEAD	SNTEXNNA	0.7077	0.6080	0.6895	0.7120	0.7265	0.7950	0.0024	0.0008	*	-.0060
	SNTDCNNA	0.7053	0.6080	0.6882	0.7090	0.7219	0.7840				0.0110
SOCKEYE	SNTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SNTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

TABLE 8.

SPILL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF JOHN DAY POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SNTEXNNA	0.5924	0.4680	0.5352	0.6020	0.6452	0.7240	0.0033	0.0017		0.0000
	SNTDCNNA	0.5892	0.4680	0.5352	0.5955	0.6392	0.6950				0.0290
SUB-YEARLING	SNTEXNNA	0.4387	0.2160	0.4277	0.4645	0.4887	0.5350	0.0027	0.0011	*	0.0000
	SNTDCNNA	0.4360	0.2160	0.4240	0.4635	0.4877	0.5250				0.0170
STEELHEAD	SNTEXNNA	0.5498	0.3680	0.5235	0.5545	0.6137	0.6210	0.0025	0.0008	*	0.0000
	SNTDCNNA	0.5473	0.3680	0.5215	0.5510	0.6085	0.6200				0.0120
SOCKEYE	SNTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SNTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SNTEXNNA	0.5750	0.4870	0.5355	0.5570	0.6302	0.6670	0.0004	0.0002		0.0000
	SNTDCNNA	0.5745	0.4870	0.5355	0.5570	0.6297	0.6670				0.0030
SUB-YEARLING	SNTEXNNA	0.4292	0.2140	0.2775	0.4690	0.5317	0.5800	0.0016	0.0007	*	0.0000
	SNTDCNNA	0.4276	0.2140	0.2775	0.4690	0.5302	0.5730				0.0100
STEELHEAD	SNTEXNNA	0.5193	0.3790	0.4520	0.5330	0.5720	0.6270	0.0009	0.0003	*	0.0000
	SNTDCNNA	0.5184	0.3790	0.4520	0.5300	0.5712	0.6240				0.0040
SOCKEYE	SNTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SNTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE		MIN DIFF MAX DIFF
YEARLING	SNTEXNNA	0.5969	0.5040	0.5477	0.5825	0.6580	0.6970	0.0019	0.0014		-.0090
	SNTDCNNA	0.5949	0.5040	0.5455	0.5755	0.6512	0.6970				0.0190
SUB-YEARLING	SNTEXNNA	0.4385	0.2340	0.3835	0.4690	0.5027	0.5850	0.0031	0.0014	*	-.0030
	SNTDCNNA	0.4354	0.2340	0.3835	0.4680	0.5012	0.5730				0.0210
STEELHEAD	SNTEXNNA	0.5426	0.4130	0.5172	0.5410	0.5835	0.6330	0.0011	0.0011		-.0130
	SNTDCNNA	0.5415	0.4130	0.5172	0.5375	0.5865	0.6300				0.0100
SOCKEYE	SNTEXNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
	SNTDCNNA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				0.0000

TABLE 9.

SPILL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF BONNEVILLE POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE	MIN DIFF MAX DIFF
YEARLING	SHIEXHMA	0.8704	0.8150	0.8545	0.8725	0.8907	0.9080	0.0002	0.0001	-.0010
	SHIDCHMA	0.8702	0.8150	0.8545	0.8720	0.8907	0.9060			0.0020
SUB-YEARLING	SHIEXHMA	0.8942	0.8370	0.8872	0.8975	0.9132	0.9190	0.0004	0.0003	-.0010
	SHIDCHMA	0.8938	0.8370	0.8847	0.8975	0.9132	0.9190			0.0050
STEELHEAD	SHIEXHMA	0.8732	0.8170	0.8600	0.8705	0.8957	0.9070	0.0004	0.0003	-.0010
	SHIDCHMA	0.8728	0.8170	0.8600	0.8705	0.8957	0.9060			0.0050
SOCKEYE	SHIEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	SHIDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE	MIN DIFF MAX DIFF
YEARLING	SHIEXHMA	0.8634	0.8230	0.8490	0.8625	0.8765	0.9030	0.0000	0.0000	0.0000
	SHIDCHMA	0.8634	0.8230	0.8490	0.8625	0.8765	0.9030			0.0000
SUB-YEARLING	SHIEXHMA	0.8831	0.8380	0.8655	0.8845	0.8962	0.9110	0.0000	0.0000	0.0000
	SHIDCHMA	0.8831	0.8380	0.8655	0.8845	0.8962	0.9110			0.0000
STEELHEAD	SHIEXHMA	0.8641	0.8240	0.8505	0.8645	0.8722	0.9020	0.0000	0.0000	0.0000
	SHIDCHMA	0.8641	0.8240	0.8505	0.8645	0.8722	0.9020			0.0000
SOCKEYE	SHIEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	SHIDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE	MIN DIFF MAX DIFF
YEARLING	SHIEXHMA	0.8698	0.8300	0.8550	0.8685	0.8837	0.9050	0.0007	0.0003 *	-.0010
	SHIDCHMA	0.8691	0.8300	0.8550	0.8685	0.8812	0.9050			0.0030
SUB-YEARLING	SHIEXHMA	0.8928	0.8500	0.8827	0.8925	0.9047	0.9200	-.0003	0.0004	-.0060
	SHIDCHMA	0.8932	0.8500	0.8820	0.8925	0.9062	0.9200			0.0030
STEELHEAD	SHIEXHMA	0.8720	0.8360	0.8637	0.8665	0.8902	0.9070	-.0004	0.0004	-.0060
	SHIDCHMA	0.8724	0.8360	0.8637	0.8665	0.8917	0.9070			0.0020
SOCKEYE	SHIEXHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	SHIDCHMA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000

TABLE 10.

SPILL ANALYSIS OF FISHPASS OUTPUT

SURVIVAL OF SYSTEM POOL STOCKS

(Existing vs. Expanded Capacity)

***** CONTRACT YEAR 1992 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE	MIN DIFF MAX DIFF
YEARLING	SHIEXHMA	0.7005	0.6520	0.6830	0.7000	0.7245	0.7480	0.0010	0.0005	0.0000
	SHIDCHMA	0.6996	0.6520	0.6830	0.6980	0.7245	0.7400			0.0080
SUB-YEARLING	SHIEXHMA	0.4666	0.3340	0.4630	0.4805	0.5020	0.5140	0.0015	0.0005 *	0.0000
	SHIDCHMA	0.4651	0.3340	0.4630	0.4790	0.5010	0.5090			0.0070
STEELHEAD	SHIEXHMA	0.7718	0.7420	0.7610	0.7735	0.7840	0.7960	0.0009	0.0004 *	0.0000
	SHIDCHMA	0.7710	0.7420	0.7587	0.7735	0.7837	0.7960			0.0070
SOCKEYE	SHIEXHMA	0.4313	0.3830	0.4085	0.4295	0.4502	0.4960	0.0026	0.0015	0.0000
	SHIDCHMA	0.4288	0.3770	0.4040	0.4295	0.4502	0.4700			0.0260

***** CONTRACT YEAR 1997 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE	MIN DIFF MAX DIFF
YEARLING	SHIEXHMA	0.6904	0.6540	0.6742	0.6905	0.7020	0.7330	0.0006	0.0003	0.0000
	SHIDCHMA	0.6898	0.6540	0.6742	0.6900	0.7005	0.7330			0.0040
SUB-YEARLING	SHIEXHMA	0.4553	0.3300	0.3780	0.4840	0.5057	0.5390	0.0010	0.0003 *	0.0000
	SHIDCHMA	0.4543	0.3300	0.3780	0.4840	0.5050	0.5350			0.0050
STEELHEAD	SHIEXHMA	0.7634	0.7380	0.7535	0.7615	0.7740	0.7940	0.0003	0.0001 *	0.0000
	SHIDCHMA	0.7632	0.7380	0.7527	0.7615	0.7740	0.7940			0.0010
SOCKEYE	SHIEXHMA	0.4176	0.3870	0.4000	0.4160	0.4340	0.4550	0.0014	0.0006 *	0.0000
	SHIDCHMA	0.4162	0.3830	0.3977	0.4160	0.4337	0.4550			0.0100

***** CONTRACT YEAR 2002 *****

SPECIES	ALTERNATIVE	MEAN	MINIMUM	25%	MEDIAN	75%	MAXIMUM	MEAN DIFFERENCE	STANDARD ERROR OF MEAN DIFFERENCE	MIN DIFF MAX DIFF
YEARLING	SHIEXHMA	0.6993	0.6590	0.6880	0.6990	0.7090	0.7390	0.0014	0.0005 *	-.0010
	SHIDCHMA	0.6980	0.6590	0.6880	0.6955	0.7087	0.7390			0.0080
SUB-YEARLING	SHIEXHMA	0.4616	0.3410	0.4505	0.4820	0.4907	0.5460	0.0021	0.0008 *	-.0010
	SHIDCHMA	0.4595	0.3410	0.4505	0.4805	0.4915	0.5380			0.0120
STEELHEAD	SHIEXHMA	0.7689	0.7420	0.7580	0.7685	0.7772	0.7980	0.0009	0.0003 *	-.0020
	SHIDCHMA	0.7680	0.7420	0.7575	0.7680	0.7780	0.7930			0.0050
SOCKEYE	SHIEXHMA	0.4272	0.3860	0.4067	0.4300	0.4455	0.4730	0.0026	0.0009 *	-.0040
	SHIDCHMA	0.4247	0.3810	0.4055	0.4290	0.4425	0.4730			0.0110

ATTACHMENT "D"

Attachment
TIE-1-87

Table 1. Coded values for system overgeneration spill and system survival.

CONTRACT YEAR = 1992

OVERGENERATION SPILL	STOCK			
	YEARLING	SBYRLNG	STEELHEAD	SOCKEYE
0	0	0	0	0
0	0	0	0	0
1	1	1	1	1
0	0	0	0	0
1	1	1	1	1
1	0	1	1	0
1	1	1	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	1	0	0
1	0	0	0	0
1	1	1	1	1
1	0	1	0	0
0	0	0	0	0
1	0	1	1	0
1	0	1	0	1
0	0	0	0	0
1	0	1	0	0
0	0	0	0	1

Table 2. Coded values for system overgeneration spill and system survival.

CONTRACT YEAR = 1997

OVERGENERATION SPILL	STOCK			
	YEARLING	SPRING	STEELHEAD	SOCKEYE
1	0	1	1	0
1	0	1	0	0
1	1	1	1	1
1	0	1	0	1
0	0	0	0	0
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	1	0	1
1	1	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	1	0	0
1	0	0	0	0
1	1	0	1	1
1	1	0	1	1
0	0	0	0	0
1	1	0	1	1
0	0	0	0	0
1	0	1	0	0

Table 3. Coded values for system overgeneration spill and system survival.

CONTRACT YEAR = 2002

OVERGENERATION SPILL	STOCK			
	YEARLING	SPRING	STEELHEAD	SOCKEYE
1	0	1	0	1
1	0	0	1	0
0	0	0	0	0
1	1	0	1	1
0	0	1	0	0
0	1	0	0	0
1	1	1	1	1
1	1	1	1	1
0	0	0	0	0
1	1	1	1	1
0	0	0	0	0
0	1	1	1	0
0	0	0	0	0
1	0	1	1	1
1	1	1	1	1
0	1	1	1	1
1	1	1	1	1
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0

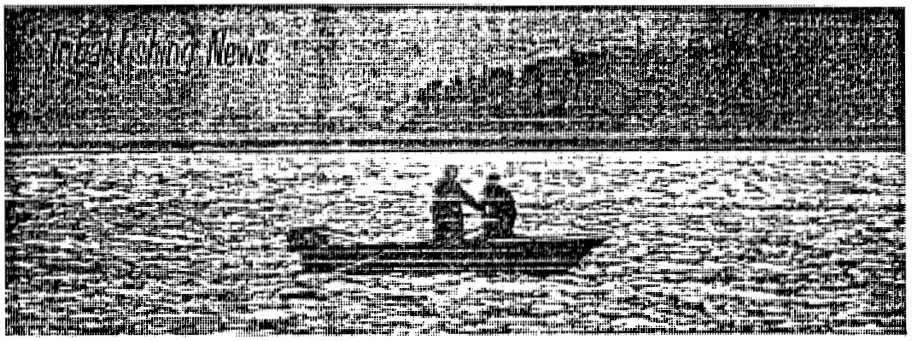
ATTACHMENT "E"

COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

CRITFC NEWS

TRIBAL SUPPLEMENT JUNE 1986

Attachment
TIE-1-87



SOCKEYE

The preliminary estimate for this year's inriver sockeye run is between 90,000 and 160,000. A commercial Zone 6 sockeye season will be set on June 19 at a meeting of the Columbia River Compact. As of June 12, no recommendations have been made for a specific number of fishing days. (Run size estimates will be updated just before the Compact meets, and recommendations will be made then.)

In 1983, with a run size of 100,500, there were six days of commercial treaty Indian fishing. A comparison of the past six years' total run sizes and the number of Zone 6 commercial fishing days is as follows:

Year	Run Size	Fishing Days
1980	52,600	none
1981	58,900	none
1982	56,000	none
1983	100,000	6 days
1984	161,000	10 days
1985	196,000	18 days

In 1984 and 1985, the treaty Indian harvests were 22,500 and 46,800 respectively. Under the present forecast for this year's run, between 11,250 and 42,500 sockeye will be harvested in Zone 6.

Note that the sockeye fishing season will begin very soon after June 19. (In 1984 it started on June 25, and in 1985 on June 22.) Also, a four and one-half inch net mesh size or smaller will be required.

FALL CHINOOK AND STEELHEAD

The fall chinook run of upriver brights will be about 285,900--a 50 percent improvement over the 1985 run! However, the Spring Creek tule fall chinook, which pass Bonneville Dam at the same time as the upriver brights, are expected to be very poor — down 52 percent. (See the March 1986 **Tribal Supplement** for more information about the tule fall chinook run.)

For the fall chinook season, commercial fishermen can expect approximately 30 days of fishing from about the third week of August to sometime in early October. Because the steelhead run size can't be forecast yet, information about Zone 6 steelhead seasons will be reported in the upcoming **Tribal Supplement**.

Attachment
TIE-1-87

his Issue: Spring Chinook

HERE ARE THEY GOING?

Salmon and steelhead runs in the Columbia River basin were the largest in the world and supported a large Indian population since time immemorial. Since the arrival of non-Indians less than two centuries ago, however, salmon and steelhead runs have declined and many others have been eliminated. Most of the remaining salmon and steelhead are hatchery runs; only a small number still spawn in rivers and streams.

With this issue of the **Tribal Supplement**, we are starting a series to show where the various runs are headed (either to hatcheries or river spawning areas) so that management decisions made to protect and improve runs can be better understood. The map below shows hatcheries and natural spawning areas (as the rivers are called that still have fish spawning in them) for spring chinook above Bonneville Dam.

When spring chinook pass Bonneville, they are headed for a variety of rivers, streams, and hatcheries throughout the upper Columbia basin, as shown on the map. About 80 percent of the run is returning to hatcheries, while only some 20 percent are headed for natural spawning grounds.

Altogether the nearly 20 spring chinook hatcheries above Bonneville need about 30,000 to 40,000 spring chinook to meet spawning requirements. To rebuild the natural and wild runs above Bonneville , about 70,000 to 80,000 additional spring chinook must return to the rivers and streams where they were born.

These rivers include the Clearwater, Deschutes, John Day, Klickitat, Salmon, Umatilla, Yakima, Wenatchee and numerous other Columbia basin rivers above Bonneville. Several of these rivers are showing signs of restoration, while many others are not. Tribal fisheries programs are trying to restore spring chinook on ceded area and reservation rivers.

Tribal subsistence fisheries for spring chinook are held on the Yakima, Rapid River, Klickitat, and Deschutes. Other rivers haven't improved enough to allow subsistence fishing.

In other words, more spring chinook are needed in the tributaries above Bonneville Dam. More specifically, of the total spring chinook passing Bonneville, about 100,000 to 120,000 are needed for spawning escapements (that is, they must escape harvest and spawn).

That's why this year, even with a run size of 118,000, no commercial season took place on the mainstem Columbia. (By tribal government decision, 8,050 spring chinook were allocated to ceremonial and subsistence use — up from 2,000 per year in previous years. Also, this year's lower river gillnet harvest of upriver spring chinook was only about 2,000.)

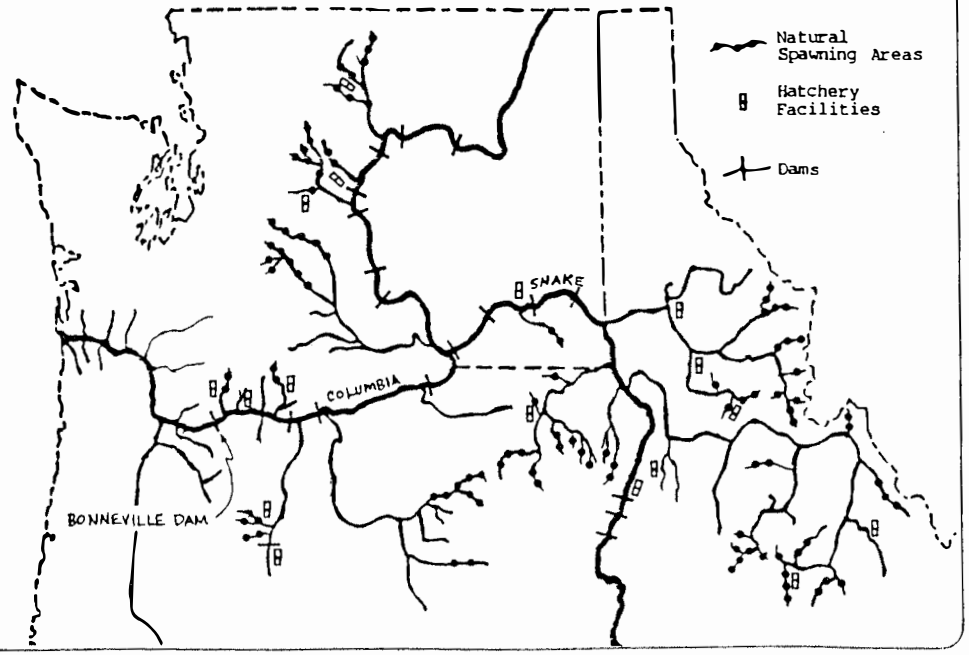


EXHIBIT C

APPENDIX 6

STATUS OF COLUMBIA RIVER CHINOOK SALMON STOCKS

Attachment
TIE-187

Prepared for

Chinook Salmon Technical Committee
U.S./Canada
Pacific Salmon Commission

February, 1986

Columbia River Inter-Tribal Fish Commission Staff
Portland, Oregon

I. Introduction

The Columbia River has historically been the major producer of chinook salmon (Oncorhynchus tshawytscha) on the west coast of North America. In 1883 the in-river fishery peaked with a catch of 40 million pounds or 2 million fish if a 20 pound average is assumed (Van Hyning, 1973). This catch was largely composed of spring and summer chinook, which historically formed the dominant segments of the chinook return to the river (Van Hyning, 1973). The chinook catch declined sharply after the 1883 peak and effort shifted over to the less exploited fall run. However, catches remained at a high level (more than 10 million pounds) up to 1950 (Smith, 1979).

Since that time chinook production in the Columbia River has declined sharply due to a number of factors including hydro-electric dam construction, habitat elimination or degradation, and over harvest. Despite this, the river remains a major contributor to chinook fisheries from southeast Alaska to Oregon. The Columbia River fall chinook populations are once again supporting significant in-river fisheries. The upriver spring and summer chinook returns remain depressed and consequently do not support any significant in-river fisheries.

This report summarizes the status of Columbia River chinook stocks and examines the trends in the resource during the period 1972-85. Statistics for 1985 will be provided as available. This period has been one of dramatic declines in many stocks, especially those originating above Bonneville Dam. While not discounting the tremendous impact of hydro-electric dam

construction and habitat loss on the chinook resource, this report focuses particular attention on the effects of present fishing pressures.

II. Management Units

Chinook entering the Columbia River are divided by return timing into spring, summer, and fall segments. Historically there may have been one continuous run of chinook into the river from February to September which peaked during the summer (Thompson, 1951). The summer and spring segments were most heavily exploited by early in-river fisheries (Smith, 1979). Only after intensive over-exploitation of the middle segment did the present division into three segments manifest itself (Thompson, 1951). Presently, the fall returning segment is most abundant followed by the spring and summer returns. Spring chinook peak at Bonneville Dam approximately April 25, summers about June 25, and falls about September 10.

Distinct populations or management units can be distinguished within the spring and fall returns on the basis of ocean distribution as well as spawning time and age at maturity. Presently, no distinct population units are recognized within the summer chinook returning segment. The lack of information necessary to distinguish summer population units may be attributed to the severely reduced state of the population and relative lack of hatchery production needed to provide tagging information. However, differences do exist between the age of summer chinook juvenile outmigrants from the upper Columbia and Snake River, which may be an indication of distinct units. The

1985 hatchery production of upper Columbia and Snake River summer chinook is being tagged at levels necessary to estimate their contribution to ocean fisheries.

Two distinct stocks of spring chinook occur below Bonneville Dam. These are represented by major hatcheries with extensive tagging programs. The Willamette River spring chinook are far north migrating with the bulk of ocean tag recoveries coming from southeast Alaska and northern British Columbia. In contrast, the Cowlitz River population, which is typical of returns to several Washington tributaries and hatcheries, is harvested primarily by the ocean fisheries off Oregon, Washington, and British Columbia.

Spring chinook stocks above Bonneville are not clearly represented by either of the two lower river stocks, and may constitute a third distribution type or a mixture of other types. More extensive coded-wire-tag information will be available in coming years and may clarify this situation. Limited existing information seems to indicate upriver spring chinook stocks have low contributions to ocean fisheries.

Fall chinook are clearly distinguishable into Tule and Bright populations. Bright fall chinook are known to migrate far north and are caught mainly off southeast Alaska and northern British Columbia. In contrast, Tule fall chinook are caught largely off Washington and southern British Columbia. The two groups are distinguishable at several points in-river as well. Bright chinook mainly spawn above McNary Dam and rely heavily on a naturally spawning component produced in the Hanford reach between Priest Rapids and McNary Dams. Tule production, on the other hand, is confined to areas below The Dalles Dam, and is

predominantly hatchery produced. A functional division between the two groups is The Dalles Dam (Figure 1). Although both groups enter the river at similar times, Bright chinook spawn later than Tules. Consequently, Brights are much higher in quality and value than the Tules for much of their in-river migration. Age at maturity is also different with Brights returning predominantly as 4's, Tules from the Washington facilities below Bonneville Dam also return predominantly as 4's, and Spring Creek and Bonneville hatchery Tules return predominately as 3's.

III. Spawning Escapement Needs

Columbia River chinook are managed for a combination of hatchery and natural production. Much of the middle and upper Columbia basin is managed for natural production, although hatchery production is significant for all runs. Upriver spring chinook spawning occurs mainly in tributaries above The Dalles Dam, with a large concentration occurring in the Snake River. Summer chinook spawn in tributaries as well as the mainstem above McNary Dam. Spring chinook are also produced in a number of tributary hatcheries (Table A1), while summer chinook hatchery production is almost entirely confined to the facility at Wells Dam (Table A2), with some additional production from McCall Hatchery in the Snake Basin. Bright fall chinook natural spawning occurs in the mainstem area between Priest Rapids and McNary Dams. Hatchery production from facilities in this same area are becoming an increasingly important component of Bright fall chinook production (Table A3, A4, A5).

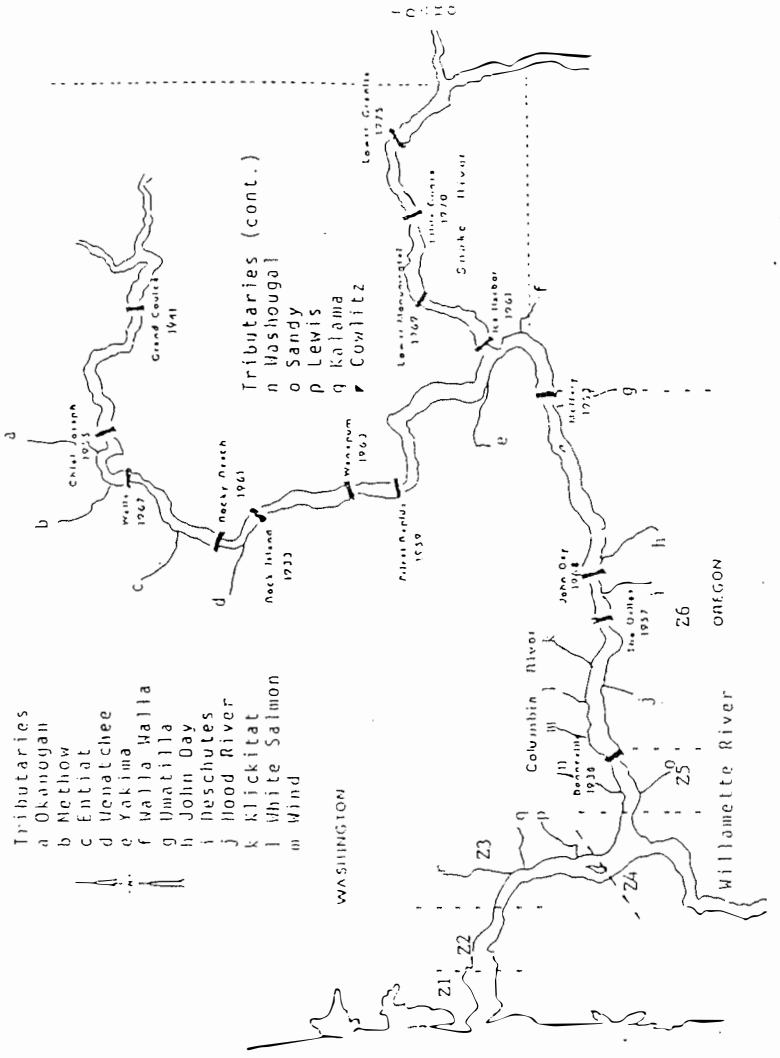


Figure 1. Columbia River system showing dams, initial year of service, major tributaries, and harvest management zones, (Z1 - Z6).

Chinook production in the area below The Dalles Dam is largely of hatchery origin (Table A6, A7, A8) although supplemental natural production is important. As previously noted, spring chinook production in the lower river is composed of the Willamette and Cowlitz groups. Fall chinook production is primarily of the Tule stock with additional egg bank programs, and the Lewis River natural population which produce far north migrating fall chinook. No significant summer chinook production occurs below The Dalles Dam.

Spawning escapement goals have been established for management units above Bonneville Dam. Since production below this point is largely of hatchery origin, escapement goals have not been established beyond the need of each individual facility. An exception to this is the Willamette spring chinook for which the state of Oregon has set a goal to meet both natural and hatchery needs. Spawning escapement goals which are currently managed for in the Columbia River are shown in Table 1.

Table 1. Columbia River chinook spawning escapement goals (adults).

Run	Stock	Location	Goal	Reference
Spring	Willamette	Will. Falls	30-35,000	Collins, 1982
Spring	Up-river	Bonneville	120,000	5-Year Plan
Summer	Up-river	Bonneville	80-90,000	ODFW, 1971
Fall	Spring Cr. Tules	Spring Cr.	8,200	USFWS
Fall	Brights	McNary	40,000	TAC, 1982

IV. Run Size, Escapement, and 1986 Outlook

Compared to most other systems, run size and escapement in the Columbia River can be obtained relatively easy due to the presence of fish counting stations at each mainstem dam, and in the fish passage facility at Willamette Falls. For upriver runs the estimated return is the Bonneville Dam count plus an estimate of the catch which occurred below the counting facility. The run size for other populations is the estimated spawning escapement plus known catch. Estimates derived in this manner are minimum run size due to inaccuracies in the accounting of legal catch, the lack of estimates of natural mortality, unreported catch below the counting facilities, and mortality at the counting structure (dam) occurring before the fish are counted. Final sport catch estimates derived from punch cards normally lag the time of catch by up to two years. Therefore, run size estimates should be considered preliminary since 1983.

In the following section, the status of each management unit delineated above will be discussed in relation to the escapement goal, management objective established by the management agencies, and stock abundance outlook for 1986. Information for adult run sizes and catches, unless noted otherwise, are summarized in Table 2. Jacks, where they are included, make up a small proportion of the returns, so that no significant distortion of run size should be introduced.

Table 2. Summary of present status of Columbia River Chinook

Management Unit	Race	Escapement Goal a/	Management Objective b/	Present Condition
Willamette R.	Spring	30-35,000 Will. Falls	Hatchery (wild)	Meeting hatchery needs
Cowlitz R.	Spring	N/E	Hatchery (wild)	Meeting hatchery needs
Upper Columbia c/	Spring	120,000 Bonneville	Wild (hatchery)	Depressed, but improving: 1985 escapement, 83,100
Upper Columbia	Summer	80-90,000 Bonneville	Wild (hatchery)	Severely depressed 1985 escapement 24,300
Lower Columbia c/	Fall Tules	N/E	Hatchery (wild)	1985 return depressed. Previously providing returns excess to hatchery needs.
Spring Creek Hatchery	Fall Tules	8,200 Spring Creek	Hatchery	1985 return severely depressed Previously exceeded hatchery need.
Upper Columbia	Fall Brights	40,000 McNary	Wild (hatchery)	1985 escapement 94,600. (Third year goal has been exceeded since 1973.)

a/ Escapement goal presently managed for in-river. Goal is measured at location shown underneath the goal. N/E = not established. For these hatchery management units no aggregate goal is established. Management is for the needs of the individual hatchery.

b/ Primary goal of management. Supplementary production shown in parentheses.

c/ Upper and lower Columbia split at Bonneville Dam.

Willamette River Spring Chinook

The spring chinook run to the Willamette River (Table 3) presently supports a large sport fishery in the river itself, and a limited mainstem commercial fishery. Although natural spawning is important, hatchery production is predominant, and is estimated to contribute about 75 percent of the production (Collins, 1982). The present run is probably increased over historic levels, primarily due to the completion of a fishway at Willamette Falls, and hatcheries built by the Corps of Engineers to compensate for dam construction in the upper watershed.

The present management goal of 30-35,000 fish over Willamette Falls (Collins, 1982) has been met in most years (Table 3), and the run is generally considered to be in healthy condition. Future plans call for an increase in the total river run to around 100,000 which would increase the Willamette Falls goal to about 45,000 fish.

1986 Outlook:

The ODFW staff is projecting an overall return of 65,000 Willamette spring chinook entering the Columbia River in 1986 (Columbia River Joint Staff, 1986).

Table 3. Estimated Willamette River Spring Chinook Run, 1972-85 a/

Year	Mainstem Catch	Willamette Catch b/	Escapement c/	Total Run
1972	11,300	18,700	28,400	58,400
1973	16,200	10,200	44,300	70,700
1974	10,600	25,200	46,600	82,400
1975	8,000	12,500	20,100	40,700
1976	4,300	16,400	24,300	45,000
1977	6,300	15,000	43,000	64,400
1978	11,900	20,800	50,600	83,300
1979	4,600	14,100	30,500	49,200
1980	900	10,200	27,000 e/	43,400
1981	7,700	12,800	30,100 e/	56,300
1982	5,500	21,400	46,200 e/	78,000
1983	7,100	18,300	30,600 e/	63,200
1984	9,700	23,700	43,500 e/	84,200
1985 d/	11,200	18,000	34,500 e/	67,800

a/ Includes jacks, PFMC (1983), King (1983).

b/ Includes Willamette and Clackamas catches.

c/ Includes Clackamas River escapement and losses below Willamette Falls.

d/ Preliminary.

e/ Willamette Falls count.

"Cowlitz-type" Spring Chinook

The spring chinook returns to the Cowlitz and nearby Washington tributaries (Table 4) also support large sport fisheries and a limited mainstem commercial fishery. Although significant natural spawning takes place, hatchery production is predominant. Hatchery needs have been met in most years. The Cowlitz Hatchery has experienced surplus returns in all recent years.

1986 Outlook:

The 1986 Cowlitz River adult return is projected to be below the 1975-84 average of 21,700, due to depressed four and five year old components. However, the 1986 Lewis River adult run component is projected to exceed the recent year average return of 2400 (Columbia River Joint Staff, 1986).

Table 4. Minimum run of "Cowlitz-type" spring chinook entering tributaries, 1972-1985 a/

Year	Cowlitz R.		Kalama R.		Lewis R.		Total		
	Catch	Escape b/	Catch	Escape b/	Catch	Escape b/	Catch	Escape b/	Run
1972	4,300	5,000	100	300	100	0	4,500	5,300	9,800
1973	3,600	10,500	100	100	100	0	3,800	10,600	14,400
1974	7,700	20,100	0	500	100	0	7,800	20,600	28,400
1975	17,900	27,900	1,300	2,400	400	0	19,600	30,300	49,900
1976	20,500	34,400	1,400	2,600	2,600	700	24,500	37,700	62,200
1977	9,200	27,000	800	1,400	3,100	600	13,100	29,000	42,100
1978	8,800	27,600	600	1,300	3,400	600	12,800	29,500	42,300
1979	8,300	11,900	900	2,000	1,700	700	10,900	14,600	25,500
1980	14,300	19,200	400	2,700	1,500	800	16,200	22,700	38,900
1981	7,500	26,600	1,100	2,800	2,100	900	10,700	30,300	41,000
1982	10,000	16,100	2,500	6,500	2,700	1,200	15,200	23,800	39,000
1983	12,000	18,000	2,200	3,300	3,100	600	17,300	21,900	39,200
1984	8,000	15,200	1,000	1,300	3,000	1,900	12,000	18,400	30,400
1985	4,000	6,800	100	100	4,500	400	8,600	7,300	15,900

a/ Includes jacks. King (1983).

b/ Includes natural spawning.

Upriver Spring Chinook

Spring chinook production above Bonneville Dam has shown tremendous declines from recent historic levels (Table 5). Returns have been such that no directed in-river fisheries for upriver spring chinook have occurred since 1977. A major reason for the decline is the construction of hydroelectric dams, and the resulting habitat loss and passage mortalities. This is particularly true for returns to the Snake River which historically accounted for a major portion of spring chinook production in the upriver area.

The count of spring chinook over Bonneville has remained relatively stable since 1979, but at a level far below the desired escapement level of 120,000 spawners (Figure 2). The 1985 return of 83,100 was a significant improvement over the 1984 count which was the lowest on record (Table 5). While some segments of the upriver run have shown increase as a result of hatchery programs (Wenatchee River) and protection of spawning habitat (Yakima River), most components remain severely depressed.

The improved 1985 return and the forecast for a larger 1986 return may suggest the rebuilding of upriver spring chinook. However, the run clearly still remains below escapement goals. The present reduced run size appears to primarily reflect declines in natural production, partly due to habitat loss and high juvenile in-stream mortalities. At present, information is inadequate to assess ocean harvest rates for upriver spring chinook stocks.

1986 Outlook:

The 1986 run is predicted to improve again with 115,000 upriver spring chinook adults returning. A second consecutive improved return of upriver fish would provide encouragement that wild populations can be rebuilt. However, current runs are still predominately hatchery fish (Columbia River Joint Staff, 1986).

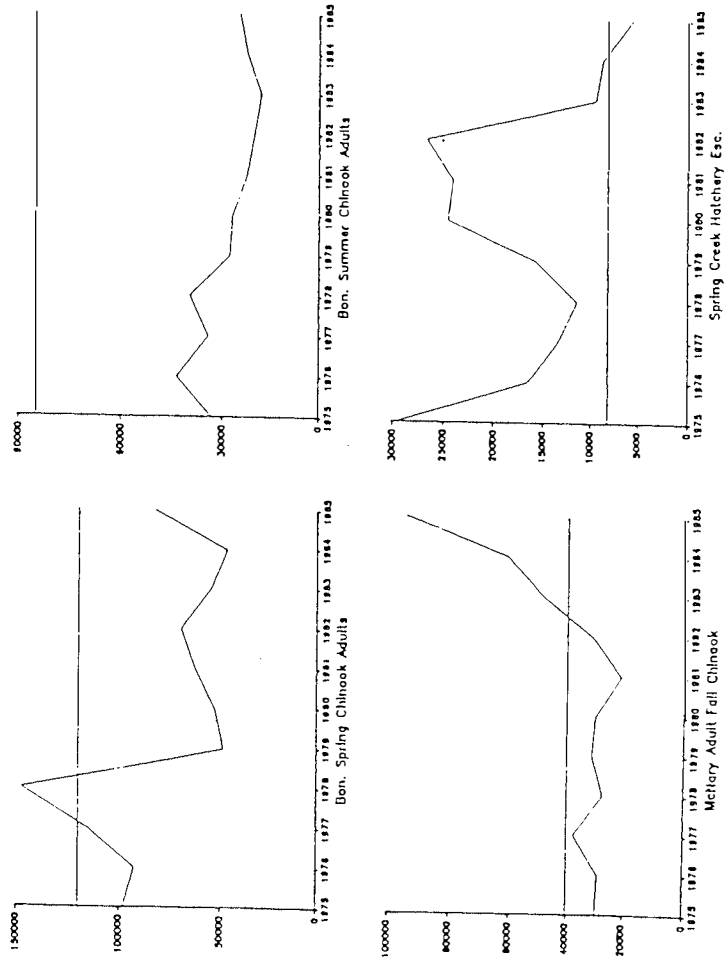


Figure 2. Trends in chinook escapement for the four principle upriver Columbia stocks (1975 - 1985).

Table 5. Adult Upriver Spring Chinook Run, 1972-85 a/

Year	River Mouth b/	Bonneville	Snake River c/
1972	269,500	178,300	47,200
1973	223,800	135,400	58,400
1974	99,800	79,400 d/	18,000
1975	97,900	97,900	20,200
1976	63,900	63,900 d/	20,400
1977	138,400	115,600	42,400
1978	127,000	127,000 d/	49,000
1979	48,600	48,600	8,500
1980	53,100	53,100	8,300
1981	63,600	62,800	15,600
1982	71,100	70,000	14,300
1983	55,900	54,900	12,100
1984	47,400	46,800	8,100
1985 e/	84,500	83,100	31,300

a/ PFMC (1983), Jensen (1984), Columbia River Joint Staff, 1986.

b/ Bonneville Dam count plus catch below Bonneville.

c/ Ice Harbor Dam Count.

d/ Corrected for fallback.

e/ Preliminary.

Upriver Summer Chinook

Despite their historic role as the major component of the Columbia River chinook population, summer chinook are now the least abundant segment of the population (Table 6). At the present time, most production occurs between Priest Rapids and Chief Joseph Dams, with small numbers originating in the Snake River. The spawning escapement goal of approximately 85,000 spawners over Bonneville Dam has not been reached since 1969. Since that time the counts at Bonneville have declined steadily, and recent counts have been less than one-third the desired level (Figure 2). The 1985 return showed slight improvement over recent years.

Much of the decline in summer chinook production in the early part of the century can be attributed to intense in-river fisheries and construction of mainstem dams, particularly Grand Coulee. More recently, the summer chinook have suffered from a heavy impact by ocean fisheries, as well as the passage and habitat problems common to all upriver populations. Additionally, mitigation efforts for this run have been minimal: no mitigation which directly benefited summer chinook was received for the more than 1,000 miles of habitat loss (Chaney, 1978) when Grand Coulee Dam was erected in 1938, and Chief Joseph in 1955.

1986 Outlook:

Summer chinook returns to the Columbia River for 1986 are expected to continue at the depressed levels of recent years.

Table 6. Columbia River Adult Summer Chinook Run Size, 1972-85 a/

Year	Bonneville b/	Priest Rapids	Snake River c/
1972	67,800 d/	13,400	21,300
1973	37,600 d/	12,200	12,000
1974	28,900 e/	12,900	9,700
1975	33,000	18,900	7,200
1976	26,700 d/	17,200	7,300
1977	34,100	16,300	9,500
1978	38,500 d/	19,200	10,200
1979	27,700	20,300	1,700
1980	27,000	16,000	2,300
1981	22,400	11,600	3,300
1982	20,100	8,800	4,200
1983	18,000	8,500	4,300
1984	22,400	16,200	5,500
1985 f/	24,300	15,900	4,100

a/ Jensen, 1985.

b/ Bonneville Dam count almost equivalent to river mouth run size since catch below the dam has been virtually zero for every year except 1972-73, when catch was less than 5,000.

c/ Ice Harbor Dam count.

d/ Bonneville count plus lower river catch.

e/ Corrected for fallback.

f/ Preliminary.

Tule Fall Chinook

The Tule fall chinook historically have been the mainstay of the Washington ocean and Columbia River commercial fisheries. Generally returns have been more than adequate, and larger surpluses have occurred in most years due to in-river harvest restrictions designed to protect upriver Bright fall chinook. The overall return of Tule fall chinook to the Columbia River remained relatively constant from 1972-82 (Table 7) at around 250-300,000.

Tule production is centered on two large production facilities: Bonneville and Spring Creek Hatcheries, located just below and above Bonneville Dam, respectively. Several other smaller facilities exist for this run below Bonneville Dam and rely on the two larger facilities for eggs when shortfalls in returns occur.

Beginning with 1983, Tule returns showed a large and sudden drop. Hatchery escapements in most cases barely met needs and, in sharp contrast to past years, in-river and Washington/Oregon ocean fisheries were curtailed to achieve Tule escapement. In 1985, Spring Creek hatchery egg take goal for Tule stocks was not met for the first time in ten years. The adult return to Spring Creek hatchery was 5,397 (compared to a goal of 8,200 and a ten year average of 13,814) (Figure 2). The Lower River Hatchery Tule stock met their egg take goal with the exception of a 20 percent shortfall at Bonneville Hatchery. The Bonneville Hatchery Tule adult return was 8,739 (compared to a ten year average of 19,758).

1986 Outlook:

The 1986 Lower River Hatchery Tule stock is expected to return at 170,600 adults (37% above the recent ten year average). However, Bonneville Hatchery, a major producer of this stock group, is expected to be very depressed. The Spring Creek Hatchery Tule stock is expected to return at about 16,000 adults, 18 percent of the recent ten year average.

Table 7. Columbia River Tule Adult Fall Chinook Run Size, 1972-85 a/

Year	Lower River Hatcheries (LRH)	Spring Creek Hatchery	Total Run
1972	143,600	49,400	193,000
1973	201,900	108,500	310,400
1974	144,600	66,700	211,300
1975	169,300	193,600	362,900
1976	172,000	186,400	358,400
1977	159,600	105,600	265,200
1978	156,400	102,600	259,000
1979	114,900	93,400	208,500
1980	104,900	105,500	210,400
1981	95,500	86,300	181,800
1982	139,600	120,500	260,100
1983	88,000	28,800	116,800
1984	105,500	47,300	152,800
1985 b/	108,300	33,300	141,300

a/ Data assembled by Tecnical Advisory Committee (TAC, 1983).

b/ Preliminary.

Upriver Bright Fall Chinook

The 1985 upriver Bright fall chinook escapement, as measured at McNary Dam, exceeded the escapement goal for the third year in a row (Table 8). The 1985 Bright escapement of 94,600 was the largest since 1960 and exceeded the spawning escapement goal by approximately 135 percent (Figure 2). Harvest restrictions imposed on the in-river fisheries, due to concerns for meeting the escapement goal for Spring Creek Hatchery, contributed to the high level of Bright over-escapement.

The primary reasons for the dramatic turn-around of the Bright chinook population apears to be related to reductions in ocean fisheries (which historically harvested two-thirds of the Bright chinook population), a large increase in hatchery production (Table A2), and significant decreases in upstream passage mortalities.

1986 Outlook:

The 1986 expectation for upriver Bright fall chinook is for an increase in stock abundance over 1985 (approximately 289,400 adults).

Table 8. Columbia River Bright Adult Fall Chinook Run Sizes, 1972-85 a/

Year	Bonneville	Lower R. Catch	Total	McNary
1972	64,500	29,700	94,200	37,600
1973	87,400	65,200	152,600	46,600
1974	76,400	21,800	98,200	34,600
1975	84,300	29,600	113,900	29,600
1976	80,800	26,400	107,200	28,800
1977	64,300	32,000	96,300	37,600
1978	65,900	16,900	82,800	27,300
1979	71,200	18,800	90,000	31,200
1980	76,800	6,300	83,100	29,700
1981	65,700	2,800	68,500	21,100
1982	72,000	4,700	76,700	31,100
1983	85,000	4,700	89,700	48,700
1984	102,000	25,800	127,800	61,000
1985 /b	152,100	38,200	193,100	94,600

a/ PFMC, 1983.

b/ Preliminary.

IV. Ocean Harvest Considerations

As mentioned above, Columbia River chinook exhibit at least two patterns of harvest based upon recoveries of coded-wire-tags (Table 9). It is assumed for all populations that the contribution pattern of tagged fish represents the actual migration path of the fish, and is representative of similar untagged hatchery and wild fish. Upriver summer and Bright fall chinook and Willamette River spring chinook are far north migrating, and contribute to the southeast Alaska, northern British Columbia, and west coast Vancouver Island troll fisheries. Relatively few of these fish are taken by Washington and Oregon ocean fisheries. Although in-river fisheries on upriver summer chinook have been virtually eliminated, Willamette spring chinook support a larger in-river sport fishery, and contribute to a limited mainstem commercial fishery. The second distribution pattern is typified by the Cowlitz spring and Tule fall chinook which exhibit a relatively local migration pattern. These stocks are taken primarily in the west coast Vancouver Island troll and Washington ocean sport and troll fisheries and traditionally have supported in-river commercial and sport fisheries. Although contributing to different ocean fisheries, these two groups display similar total ocean harvest rates, with between 41 and 70 percent of the population being taken in ocean fisheries (US/Canada Chinook Tech. Comm. 1984).

As previously mentioned, the existing CWT information for upriver spring chinook is inadequate to assess their ocean harvest rates and distribution patterns. The contribution

pattern of upriver spring chinook shown in Table 9 is based on very limited data. More information on upriver spring chinook distributions will become available in the next few years as recoveries from larger tagged releases become available.

Reasonably good information on the ocean distribution of two of the three upper Columbia River chinook runs is available, namely the upriver summers and fall Brights. In both cases, about 20 percent of the population is harvested in the southeast Alasksa troll fishery, and about 40 percent is taken by the British Columbia troll fishery.

Stock abundance for fall Bright chinook in 1986 is forecast to increase over the 1985 level. Increased production and reduced passage losses may indicate an end of the recent conservation problems experienced by Bright fall chinook. However, 1986 Bonneville and Spring Creek hatchery Tule stock abundance is expected to be severely depressed. Tule production is centered on these two large production facilities. Fall Tule chinook stocks produced at the Bonneville and Spring Creek Hatchery facilities contribute heavily to ocean fisheries off Washington, Oregon, and the west coast of Vancouver Island.

Under the provisions of the U.S./Canada Pacific Salmon Treaty the Alaskan and British Columbian mixed stock chinook fisheries are to be managed under a catch ceiling regime for 1985 and 1986. Theoretically, increasing hatchery abundance while maintaining a fixed catch ceiling should reduce exploitation on natural stocks, allowing for the rebuilding of natural stocks with less severe catch ceiling reductions. However, for 1986 fisheries off the west coast of Vancouver Island, Washington, and

Table 9. Percentage distribution of Columbia River chinook among coastal fisheries

Catch Area	Willamette Springs a/	Cowlitz Springs b/	Upriver Springs c/	Upriver Summers d/	Fall Tules e/	Fall Brights d/
S. E. Alaska	14.0	1.0	0.0	19.8	0.3	23.6
British Columbia						
North	26.6	-	-	13.5	0.8	16.3
Central	2.8	-	-	6.5	0.8	6.2
W. Vancouver Is.	12.7	-	-	18.1	19.1	16.1
Inside areas	1.2	-	-	1.0	4.3	2.0
Total British Col.	43.3	22.9	9.3	39.1	25.8	40.6
Washington/Oregon						
Coastal	5.4	48.0	-	-	39.2	-
Other areas	0.6	1.7	-	-	0.7 f/	
Total WA/OR	6.0	49.7	1.9	4.0	39.9	3.2
River Return						
Harvest	21.9	1.4	4.1	0.3	10.7	7.9
Escapement	14.8	25.0	84.8	37.0	19.0	10.6
Total River Return	36.7	26.4	88.8	37.3	34.2 g/	32.7 h/

a/ Unweighted average of recoveries from six tag codes placed on 1976 brood March releases.

b/ Unweighted average of recoveries from 15 tag codes placed on 1971 and 1972 brood releases.

c/ Unweighted average of recoveries from 11 tag codes placed on 1974 through 1977 brood Leavenworth releases.

d/ WDF catch model simulation of 1981 fishing regulations.

e/ WDF catch model input data.

f/ Includes small amounts of mixed U.S. and Canadian catches.

g/ Includes 4.41 percent of run which is unaccounted for.

h/ Includes 14.22 percent of run which is unaccounted for.

Oregon the opposite situation appears to have occurred. Due to the depressed nature of a number of Tule stocks, the hatchery buffer for natural stocks migrating through these fisheries appears to be greatly reduced. If current harvest ceilings are maintained in these fisheries harvest rates of the co-mingled natural stocks found in these areas will increase.

There is concern that the return of British Columbia's Robertson Creek Hatchery chinook will be well below average. These fish have contributed heavily in the past to northern British Columbia and southeast Alaska troll fisheries. The failure of the Robertson Creek stock will increase harvest rates on other stocks contributing to these fisheries.

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EXHIBIT D

UPRIVER SPRING CHINOOK RUN RECONSTRUCTION SUMMARY

YEAR	BONNEVILLE DAM COUNT	% WILD	% HATCHERY	# WILD	# HATCHERY
1977	115600	67	33	77452	38148
1978	127000	75	25	95250	31750
1979	48600	48	52	23328	25272
1980	53100	52	48	27612	25488
1981	62800	53	47	33284	29516
1982	70000	49	51	34300	35700
1983	54900	45	55	24705	30195
1984	46800	43	57	20124	26676
1985	83200	34	66	28288	54912
1986	118300	33	67	39039	79261

Attachment
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EXHIBIT E

A Progress Report:

Attachment
TIE-1-87

Mainstem Passage Programs for Juvenile Fish

Before and After Enactment of the Northwest Power Act

National Marine Fisheries Service
Environmental and Technical Services Division
Portland, Oregon

May 1986

Preface

The Pacific Northwest Electric Power Planning and Conservation Act of 1980 directed the Northwest Power Planning Council (Council) to develop a program to protect, mitigate and enhance fish and wildlife affected by extensive hydroelectric development in the Columbia Basin. The Act specifically requires that, in the case of anadromous fish, the program "provide for improved survival of such fish at hydroelectric facilities located on the Columbia River system, and ... provide flows of sufficient quality and quantity between such facilities to improve production, migration, and survival..." (emphasis added). Under the provisions of the Act, the Council solicited and received the recommendations of the Region's State and Federal fish and wildlife agencies and Indian tribes for measures to be included in the program. The first Columbia Basin Fish and Wildlife Program (Program) was adopted by the Council in November 1982; the Program was amended in October 1984; individual measures in the Program have also been amended since that time; the Council is now in the midst of another comprehensive amendment process.

In February 1986 the Council amended measures requiring the intentional spilling of water at Federal hydroelectric projects. Spill is required to provide interim protection for juvenile salmon and steelhead migrants that would otherwise pass through hydroelectric turbines. The Council's February 1986 spill amendment represented a serious blow to agency and tribal efforts to improve juvenile fish survival. Although the amendment was initiated at the request of the fish and and wildlife agencies and tribes to address specific problems experienced in implementation of the spill measures previously included in the Program, the recommendations of the agencies and tribes were rejected by the Council. As a result, fundamental problems that have seriously hampered the efforts of the fishery agencies and tribes to improve juvenile fish survival at Federal hydroelectric projects remain unresolved.

Problems in other areas similarly persist, in some cases despite relatively strong support in the Program. For example, other measures to increase juvenile fish survival, including the Water Budget to improve spring flow conditions and measures requiring the development of juvenile fish passage facilities at each mainstem dam, have been well supported by the Council. Yet in many cases the effective and timely implementation of these measures has either been rejected or simply stalled by the responsible Federal agencies.

Throughout the remainder of 1986 and into early 1987, the Power Planning Council will be considering amendments to the Fish and

Wildlife Program. Among the amendments under consideration are recommendations from the fish and wildlife agencies and tribes to address problems experienced in the implementation of flow and spill programs. Also included are recommendations from the Corps of Engineers to postpone for 2-3 years the installation of permanent juvenile fish bypass facilities at The Dalles, Ice Harbor and Lower Monumental dams. Therefore, there will be a number of decisions made in the next year regarding the future implementation of the Act's mandate, to improve the survival of salmon and steelhead at and between hydroelectric facilities on the Columbia and Snake rivers.

The intent of this paper is to facilitate that decisionmaking process by providing a review of past performance both under, and immediately prior to, the Act and the Program. The review is arranged in three sections. Sections 1 and 2 cover essentially the same material in differing levels of detail, with the former serving as an executive summary of the latter. Section 3 consists of conclusions and recommendations.

Contents

Section 1: Executive Summary

Among the purposes of the Northwest Electric Power Planning and Conservation Act of 1980 is the protection, mitigation and enhancement of fish and wildlife in the Columbia Basin. Realization of this purpose is to come through the Fish and Wildlife Program adopted by the Northwest Power Planning Council. Section 4(h)(6) of the Act specifies that measures to be included in the Program are to complement the activities of the fishery agencies and tribes, be supported by the best available information, use the least cost alternative for each sound biological objective, and be consistent with Indian legal rights. The only substantive requirement for these measures is that, in the case of anadromous fish, they must:

1. Improve survival at hydroelectric facilities, and

2. Provide sufficient flows to improve survival between such facilities.

These objectives were not new under the Act; they had long been recognized by the fishery agencies and tribes as the key to restoration of upriver salmon and steelhead stocks. Under the Act, however, they were, for the first time, explicitly included as a purpose, co-equal with all other purposes, for which the Federal and non-Federal hydroelectric facilities on the Columbia River and its tributaries are to be managed, operated and regulated.

Survival between projects is improved by increasing spring flows to move fish through the system in a biologically timely manner. Survival at projects is improved by moving migrating juvenile fish past projects by non-turbine routes. The latter is accomplished by screening intakes to divert fish into bypass channels from which they can be returned to the river below the dam or, at some projects, collected for transport around several dams. In the interim, at projects without structural bypasses, safe passage can also be provided by spilling water over the dams.

The National Marine Fisheries Service recently reviewed the success of the Program and other initiatives to improve juvenile fish survival on the mainstem Columbia and Snake rivers through flow enhancement, bypass facility development and interim spill. Progress in each area was reviewed for the period immediately prior to and since passage of the Northwest Power Act. Mechanisms for fishery agency and tribal participation in decisionmaking regarding these programs was also reviewed.

In general, the review concludes that there has been no substantive improvement in flows for fish migration or in the role of the fishery agencies and tribes. In the case of spill for fish passage and bypass facility development there has been some

progress, most notably in response to FERC orders at the Mid-Columbia PUD projects and in the completion of previously planned construction at Corps' projects. There has also been some backsliding. Each area is summarized below.

Role of the Fishery Agencies and Tribes

The Committee on Fishery Operations (COFO) has been replaced by the Fish Passage Center as the fishery agencies' and tribes' primary coordination mechanism.

The COFO was an ad hoc group including the operating agencies, the fishery agencies, members of the Northwest Power Pool, and other interested parties. The purpose of the COFO was to "promote better coordination of reservoir system regulation." The process was entirely voluntary, there was no formal membership, no written charter and no clearly defined status. Annual fishery plans developed by the COFO were limited by constraints imposed by the dam operators, and, except where they followed a FERC order, their implementation relied on the voluntary cooperation of those operators.

The Fish Passage Center (formerly Water Budget Center) represents the fishery agencies and tribes, and coordinates their input in pre-season planning, in-season operational requests and post-season reporting on flow and spill programs, and also fish facility inspections. In 1985, after the Fish Passage Center operated in this capacity for two years, the BPA attempted to use their contracting authority over the Center and a strict reinterpretation of the Program language to prevent the Center from participating in the spill or facility operations portions of these activities. The Power Planning Council supported the fishery agencies' and tribes' view in that dispute and clarified the Program to specifically identify the Water Budget managers as the primary points of contact between fishery and power interests on matters concerning both the Water Budget and spill at Corps projects. Coordination of facility inspections was not included. Funding for this activity is now provided to the Fish Passage Center by the fishery agencies.

The Fish Passage Center has been effective in coordinating among the fishery agencies and tribes, however, there has been little progress in improving the status of those agencies and tribes relative to the power interests in system planning or operations. At the same time, however, the Corps, the Council, and most notably the BPA have added substantially to their fish and wildlife staffs and are becoming increasingly involved in fishery management decisions such as whether, when and for what stocks protective measures are needed.

Flows to Improve Juvenile Survival

As a result of the Program, the flow objective of the dam operating agencies changed from providing the fishery agencies' recommended minimum or optimum flow levels to providing the Water Budget flow regime set out in the Program. This is particularly significant when considered together with a recent BPA reinterpretation of the Water Budget measures that considers the Water Budget to be a cap on the maximum flow available for fishery purposes, regardless of the flow year. Since the size of the Water Budget was determined based on what could be provided in a critical low flow year, this BPA interpretation means that spring flows for anadromous fish are limited in all years to what could be provided under critical low flow conditions. Under better than critical flow conditions additional flow would be provided but only if it was incidental to operation for other purposes (e.g. natural runoff that could not be stored or flows to produce power).

Additionally, while the Water Budget was based in part on the fishery agencies' and tribes' recommended flow levels, it provides less than those minimum levels in the Snake River, due to concerns about the impact on refill, and in both the Columbia and Snake rivers flows are provided for a shorter duration than originally recommended. The fishery agencies and tribes have so far worked within this compromise because of the promise offered by the institutional framework established for the implementation of the Water Budget. In particular, management by the fishery agencies and tribes and priority above reservoir refill and non-firm power were viewed as significant improvements. It was expected that the agencies and tribes would be able to manage the Water Budget to provide the baseline protection needed in low flow years and an opportunity to provide for better-than-minimum protection under more favorable conditions. The Water Budget measures still hold that promise. It has not, however, been fulfilled in their implementation to date.

The Snake River component of the Water Budget has been diminished by the Corps' position regarding Dworshak Reservoir participation and by the position of Idaho Power Company (IPC) regarding Brownlee Reservoir participation. The principal problem is the priority given to refill at both reservoirs in direct opposition to the priorities established in the Program. In the Columbia River, while water has been provided from Grand Coulee, how the Water Budget is used or shaped has been preempted for secondary power production rather than being controlled by the fishery agencies and tribes to maximize juvenile fish survival as specified in the Program.

Figures 1 and 2 at the end of section 2 illustrate flow conditions between 1977 and 1985 at Priest Rapids and Lower Granite dams respectively. These figures show total flow at each project from

April 15 to June 15 as it relates to the minimum flow recommendations of the fishery agencies and tribes for the same period. It is clear from figures 1 and 2 that in most years there is more than enough water during this period to meet the recommended minimum flow levels at all times. That is, except in a drought year like 1977 (the worst in the 50-year record), providing the necessary flows is more a question of how the water is managed than one of how much water is available.

Thus compared with conditions before enactment of the Northwest Power Act, there has been little change in flows provided for fish. There have been significant problems with implementation of the Water Budget, most acutely in the Snake River. The Water Budget has not yet been put to the true test of a dry year, such as occurred in 1973 and 1977.

Interim Protection Using Spill

The annual spill program at Mid-Columbia PUD dams has been under an order of the Federal Energy Regulatory Commission (FERC), or under a negotiated agreement accepted by the FERC, since 1979. These orders or agreements have always included a specific volume of water or proportion of project flow to be spilled, and a length of time for the implementation of that spill. Spill effectiveness research has also been required, and as a result modifications to this spill program at individual projects have been made since the initial FERC order. Since 1979, there has been substantial progress in spring spill protection at Priest Rapids, Wanapum and Wells dams. There has been no change at Rocky Reach Dam, where spill has proven relatively ineffective and where bypass facility development has been accelerated, and there has been significant backsliding at Rock Island Dam. There is no summer spill program at the PUD projects.

The interim juvenile fish protection program at the Federal projects has suffered because the Corps has retained total discretion to determine objectives and acceptable impacts. Rather than specific volumes, the Corps' spill plan has always specified spill up to some percentage of instantaneous or daily average flow when significant numbers of fish are present. In practice, this discretion that the Corps retains to determine when significant numbers of fish are present (on a seasonal and diel basis), and to decide how much to impact power, has resulted in substantially less water being used for fish protection than would have been provided with a fixed volume or proportion comparable to that required at the PUD projects. The Council adopted a 90 percent survival objective but its basis and purpose are unclear. At some projects the 90 percent objective has been used to justify reduced fish passage spill. The spill program at Federal projects has also suffered from a lack of consistent, comprehensive monitoring and spill effectiveness data.

There were some improvements in the spill program at Corps projects that seemed to parallel the directives of the Council's Fish and Wildlife Program. For example, beginning in 1983, following adoption of the first Fish and Wildlife Program, the Corps increased the amount of spill provided at John Day Dam. Then in 1985, following amendment to the Fish and Wildlife Program to include the 90 percent survival objective, the Corps reinstituted spill that had been discontinued at Ice Harbor Dam and planned for fish passage spill at The Dalles Dam for the first time. Planned spill levels for fish at both projects in 1985 exceeded what the Corps determined was necessary to meet the 90 percent survival objective. In February of 1986, however, the Council again amended the spill provisions of the Fish and Wildlife Program. The 90 percent survival objective was retained but the Council clarified that it should be met in spring and summer regardless of water conditions, even if it would impact firm power. The Corps has agreed to meet this minimal level of spill but has also withdrawn commitments to meet the higher survival objective met at some projects in 1985. As a result, planned spring spill has been eliminated at Ice Harbor Dam and substantially reduced at The Dalles Dam. On the positive side, however, summer spill should be provided at these and other projects.

Concerns about the adequacy of the spill objectives currently in the Program for Federal projects are much the same as the concerns expressed regarding the Water Budget. Like the Water Budget, the spill levels included in the Program were based on what would be a reasonable spill amount (resulting in an equitable balance) under critical low flow conditions. In 1986, however, in spite of the fact that projected flow conditions are well above critical water, the Corps' spill plan includes only the minimum required by the Program. According to that plan, spill above these minimum levels may be provided at the discretion of the Corps. In comments on the Corps' 1986 plan, the Power Planning Council made it clear that the 90 percent survival objective "only established the minimum level of spill," and that additional spill should be considered. The fishery agencies and tribes have informed the Corps that they will request spills above these minimal levels consistent with their Detailed Fishery Operating Plan when there is a surplus of Federal firm power or when Federal non-firm power exists (an indication of conditions above critical water).

Juvenile Fish Bypass Facilities

Juvenile fish bypass facilities were in place at two projects in 1980 (Lower Granite and Little Goose). McNary was added in 1981, Bonneville first powerhouse in 1984, and a partial system at John Day beginning in 1985. Completion of the John Day bypass is expected in 1987. Bonneville second powerhouse was completed in 1983 but due to low fish guidance efficiency, this system is not yet considered operational. These facilities were all planned, under construction, or in operation when the Act was passed in

1980. Since passage of the Act, and in some cases after an initial delay, the Council adopted fishery agency and tribal recommendations for bypass facility development at the other three Federal projects and at the five PUD projects. (Except that the Council has since reversed itself in the case of Rock Island Dam.)

Progress on design studies at the PUD projects has generally followed a schedule agreed to by the fishery agencies, tribes and project operators. Based on that schedule, it is conceivable that permanent facilities could be in place as early as 1988-90 at all PUD projects except Rock Island Dam.

In the case of the three outstanding Federal projects (The Dalles, Ice Harbor and Lower Monumental dams), there has been less progress. Although the Program requires the completion of all three facilities by 1989, the Corps has not yet committed themselves to the development of juvenile fish passage facilities at these three projects. However, prototype studies were conducted at The Dalles Dam in 1985 and 1986, were initiated at Lower Monumental in 1986, and are scheduled to begin at Ice Harbor Dam in 1987. The Corps indicated in the 1984 amendment process that five years are required between initiation of studies and bypass completion (hence the Program requirement for 1989 completion). Using the Corps' schedule, this means that the earliest conceivable on-line dates for the facilities at The Dalles, Ice Harbor and Lower Monumental dams are 1989, 1991, and 1990 respectively. The fishery agencies and tribes believe that this schedule is overly conservative and that the Program requirement for completion by 1989 could still be met. The Corps, however, has recommended Program amendments that would result in even further slippage from these dates (to 1992, 1992 and 1991 respectively).

Figures 5 and 6 at the end of Section 2 illustrate how far we have come in providing juvenile fish bypass facilities at the 13 mainstem dams, and how far we have yet to go. It should be noted that all of the progress reflected in these figures has been at Corps' projects. Looking at the Corps' projects independently would show that over one-half of the turbine units have been screened over the last 10 years.

Section 2: Detailed Progress Review

I. Introduction

- The following review of progress in improving the survival of downstream migrating juvenile fish on the mainstem Columbia and Snake rivers will address two questions.

  Have we provided for improved survival of anadromous fish at Columbia Basin hydroelectric projects since 1980?

  Have we provided flows to improve production, migration, and survival of anadromous fish since 1980?

  The answers to these questions require a brief review of the status of fishery agency and tribal efforts on three specific initiatives.

  Improvements in flows during the juvenile migration to speed fish to the ocean in a biologically timely manner,

  Development and operation of effective powerhouse bypass facilities to pass juvenile fish around individual dams or to collect them for transport around several dams rather than pass them through turbines, and

  Interim spills to pass juvenile fish over dams where adequate structural bypass facilities are not yet in place.

  In addition to progress in these specific areas, the review will also address the procedures for fishery agency and tribal participation in decision-making regarding these initiatives.

II. Background

A. Effects of Hydroelectric Projects on Fish

- The emphasis of fish protection efforts in the Columbia Basin has changed as the storage and generating capability of the Basin's hydroelectric system was developed.

- Beginning with the construction of the early projects such as Bonneville and Rock Island dams in the 1930's, the emphasis was on fish ladders to pass adult fish over the projects to the spawning grounds in the upper river.

  A great deal of research was conducted on the problems associated with providing safe, efficient passage for upstream migrants (COFO, 1985).

- In the late 1960's and early 1970's the focus shifted to problems associated with dissolved gas supersaturation, caused by the entrainment of air (primarily nitrogen) in the water at high spill levels, and the resultant adverse impact on fish known as "gas bubble disease." Nitrogen continues to be one of the factors considered in management of the downstream fish migration, nowever, the installation of spillway deflectors, the shifting of spill among projects during the fish passage season, and powerhouse expansions that reduced overall spill amounts have all contributed to the decrease in the severity of the dissolved gas problem.

- Following an unusually low runoff in 1973, a year when the National Marine Fisheries Service estimated that less than 5 percent of the juvenile salmon and steelhead migrating out of spawning and rearing areas in Idaho survived to below Bonneville Dam, the emphasis shifted to other problems associated with downstream juvenile fish passage.

- Most losses to migrating fish are caused by delay in passage through reservoirs, turbine passage and predation. Storage of the spring freshet reduces flows further, resulting in greater mortality because of increased delay, less water being spilled and greater passage of smolts through turbines.

- Each dam and reservoir takes its toll and together they result in substantial cumulative losses, especially in years of low runoff.

- The lack of successful juvenile fish passage has been a major factor in the decline of naturally spawning upriver fish runs, a decline which has persisted for some stocks despite severe restrictions in harvest.

- For these reasons, improving passage and survival of juvenile fish at and between mainstem dams has long been one of the highest priorities of the State and Federal fish and wildlife agencies and Indian tribes.

- Accomplishment of this objective by the agencies and tribes has been hampered, however, by their lack of operational control over the dams, and the frequent disregard of their recommendations by the U.S Army Corps of Engineers, Bureau of Reclamation, Bonneville Power Administration, Federal Energy Regulatory Commission,

and public and private utilities, who exercise that control.

B. The Northwest Power Act

- The fishery provisions of the Pacific Northwest Electric Power Planning and Conservation Act of 1980 were a direct response to the institutional impediments to improving Columbia Basin anadromous fish runs.

- In describing the problems the Act was intended to remedy, the legislative history explains that fishery interests believed they were ignored or treated with disdain by the operators and managers of the Columbia Basin dams with the result that flow and spill for fish protection were difficult to obtain.

- Under the new act, Congress emphasized that fish and wildlife should no longer to be given "secondary status," but should be a "co-equal partner with other uses in the management and operation of the hydroelectric projects of the region."

- The Act specifically requires the development of a Program to protect, mitigate and enhance Columbia Basin fish and wildlife, and that, in the case of anadromous fish, that Program shall:

  1) provide for improved survival of such fish at hydroelectric facilities located on the Columbia River system, and

  2) provide flows of sufficient quality and quantity between such facilities to improve production, migration, and survival of such fish as necessary to meet sound biological objectives.

III. Role of the Fishery Agencies and Tribes -- more complexity but little change

A. Committee on Fishery Operations

- In 1975 the Committee on Fishery Operations (COFO) was formed under the auspices of the Columbia River Water Management Group. The charter of the latter group states that their basic objective is to "facilitate agreement among the agencies in the interest of more effective and efficient public service in the use of Water Resources of the Pacific Northwest."

- COFO was an ad hoc group intended to promote better coordination of reservoir system regulation.

Participants included the operating agencies, the fishery agencies, members of the Northwest Power Pool and other interested parties. There was no formal membership, no written charter, and no clearly defined status. The process was entirely voluntary and relied on cooperation of the dam operators.

- In addition to the COFO, the participation of the Mid-Columbia utilities in annual operations to protect fish has been accomplished through proceedings before the FERC in all years except 1978.

- In the drought year, 1977, the COFO developed its first operating plan to provide for fishery needs in common with the use of water for power, irrigation and other project purposes.

- Through that plan, the concept of providing flow augmentation during the spring juvenile fish migration was developed and provided for the first time. Also for the first time, the project operators provided spill to pass juvenile fish over the dams. Even juvenile fish transportation, then still considered experimental, was put into full operation due to the severity of the fish loss that was expected that year.

- In succeeding years, the COFO plan became an annual exercise.

- Although it was a step in the right direction, the COFO did not provide fishery agencies and tribes with partnership or equality in management of the river as fish habitat. Lacking authority, it operated using the lowest common denominator and did the best job possible given the constraints imposed by the dam operators. While the annual plans included fish measures, they invariably were accompanied by qualifiers such as "every effort," "will attempt to," or "may allow," to condition any commitments to protect fish.

- COFO disbanded in 1984, recommending that their original goals be met through new coordination mechanisms that have evolved as a result of measures in the Fish and Wildlife Program adopted under the Northwest Power Act.

B. Fish Passage Center

- The Fish Passage Center (previously the Water Budget Center) representing the State and Federal fish and wildlife agencies and the Columbia Basin Indian tribes now serves as a coordinator for agency and tribal input in pre-season planning, in-season operational requests

and post-season reporting on flow and spill programs and also fish facility inspections.

- o In 1985, after the Fish Passage Center operated in this capacity for two years, the BPA attempted to use their contracting authority over the Center and a strict reinterpretation of the Program language, to prevent the Center from participating in the spill or facility operations portions of these activities.

- o The Power Planning Council supported the fishery agencies' and tribes' view in that dispute and clarified the Program to specifically identify the Water Budget managers as the primary points of contact between fishery and power interests on matters concerning both the Water Budget and spill at Corps' projects.

- o Coordination of facility inspections was not included. Funding for this activity is now provided to the Fish Passage Center by the fishery agencies.

C. Conclusions

- o The Fish Passage Center has been effective in coordinating among the fishery agencies and tribes, however, there has been little progress in improving the status of those fishery agencies and tribes relative to the power interests in system planning or operations.

- o At the same time, however, the Corps, the Council, and most notably the BPA have added substantially to their fish and wildlife staffs and are becoming increasingly involved in fishery management decisions such as whether, when and for what stocks protective measures are needed.

- o The agencies' and tribes' seat at the table has not materialized, and in its absence, we have not yet realized Congress' intent that fish and wildlife be afforded equitable and co-equal treatment in the management, operation and regulation of the Federal and non-Federal hydroelectric facilities in the Columbia Basin.

IV. Flows to improve juvenile survival -- little change

A. Flow regimes before the Fish and Wildlife Program

- o In December 1976 the agencies made recommendations through the COFO for daily and instantaneous minimum flow levels for each of the eight Corps' projects and five PUD projects on reaches of the mainstem Columbia and Snake Rivers still accessible to anadromous fish.

Table 1 at the end of this section summarizes these recommendations for Lower Granite, Priest Rapids and The Dalles dams.

- o From 1977 until the Columbia Basin Fish and Wildlife Program was adopted in 1982, the power system was operated to meet those flow levels provided that it could be done without undue impacts to other project purposes.

- o The dam operators defined what were acceptable impacts to other project purposes and, in practice, fishery needs were addressed last after a long line of "hard" constraints including firm power, flood control, irrigation, and reservoir refill. Non-firm power, while not treated as an absolute, was generally afforded a higher priority than all but the most critical fishery needs.

- o During this period, scheduling of thermal plant outages, marketing arrangements with Canadian and Southwest utilities, and other measures to take advantage of system flexibility to meet fishery requirements, were made a part of annual operations. In 1981, there were also some special, one-time measures instituted such as relaxation of flood control rule curves for Brownlee and Dworshak reservoirs (which has also been done this year, though not specifically for fishery purposes) and the reduction of the target refill probability from 95 to 85 percent.

- o In 1981, all of these measures combined were still insufficient to provide for minimum fishery flows in the Snake River. Fishery agency flow requests were denied in mid-May due to refill concerns, then due to heavy rains the reservoirs were not only refilled but were spilling by May 28 (see Figure 2 at the end of this section).

B. Flow regimes after the Fish and Wildlife Program

- o Beginning in 1984 the objective of the dam operating agencies changed from providing the fishery agencies' recommended minimum flow levels to providing the Water Budget flow regime set out in the Program.

- o This is particularly significant when considered together with a recent BPA reinterpretation of the Water Budget measures that considers the Water Budget to be a cap on the maximum flow available for fishery purposes, regardless of the flow year. Since the size of the Water Budget was determined based on what could be provided in a critical low flow year, this BPA

interpretation means that spring flows for anadromous fish are limited in all years to what could be provided under critical low flows conditions. Under better than critical flow conditions additional flow would be provided, but only if it was incidental to operation for other purposes (e.g. natural runoff that could not be stored or flows to produce power).

- The Water Budget was based in part on the fishery agencies' recommended minimum flow levels that had been presented to the Northwest Power Planning Council as recommendations. However, the Water Budget provides less than those minimum levels in the Snake River due to concerns about the impact on refill, and in both the Columbia and Snake rivers flows are provided for a shorter duration than originally recommended.

- The fishery agencies and tribes have so far worked within this compromise because of the promise offered by the institutional framework established for implementation of the Water Budget. In particular, management by the fishery agencies and tribes and priority above reservoir refill and non-firm power, promised to provide the baseline protection needed in low flow years and an opportunity to manage for better-than-minimum protection under more favorable conditions.

- The Water Budget measures still hold that promise. This promise has not, however, been fulfilled in their implementation to date.

- In the two years that the Water Budget has been implemented (1984-85) the Corps and BPA have created impediments to full implementation of the Water Budget by imposing additional constraints beyond those in the Program. These constraints have effectively eliminated the institutional benefits that were the basis for accepting the Council's compromising treatment of the minimum flow recommendation.

- In the Columbia River, while water has been provided from Grand Coulee, how the Water Budget is used or shaped has been preempted for secondary power production rather than being controlled by the fishery agencies and tribes to maximize juvenile fish survival as specified in the Program.

- The Snake River component of the Water Budget has been diminished by the Corps' position regarding Dworshak reservoir participation, and by the position of Idaho Power Company regarding Brownlee Reservoir participation. The principal problem is the priority

given to refill at both reservoirs in direct opposition to the priorities established in the Program. A related problem in the case of Brownlee is the current flood control operation dictated by the Corps that often results in substantial drawdown of the reservoir prior to the fish migration. Idaho Power Company contends that the Corps' flood control criteria are overly conservative.

- The Act and the Program provide for BPA compensation to Idaho Power Company (IPC) for any water provided in excess of IPC's responsibility for the Hells Canyon complex (which includes Brownlee Reservoir). To date, however, these provisions have not helped to improve flows because BPA and IPC have been unable to reach agreement on a plan for such compensation.

- The end result of all these factors in the Snake River in 1985 was flow below the recommended minimum at Lower Granite for 23 days out of the 60-day Water Budget period.

C. Conclusions

- Figures 1 and 2 illustrate flow conditions between 1977 and 1985 at Priest Rapids and Lower Granite dams respectively. These figures show total flow at each project from April 15 to June 15 as it relates to the minimum flow recommendations of the fishery agencies and tribes for the same period. (April 15 to June 15 encompasses the bulk of the spring outmigration and is identified by the Council as the period during which the Water Budget is to be used to enhance flows.) As can be seen from these figures, flows have fallen below minimum recommendations in a number of years but have been relatively good since 1978. Figure 3 makes the same comparison at Lower Granite Dam using the optimum flow recommendation.

- It is clear from figures 1 and 2 that in most years there is more than enough water during this period to meet the recommended minimum flow levels at all times. That is, except in a drought year like 1977 (the worst in the 50-year record), providing the necessary flows is more a question of how the water is managed than one of how much water is available.

- The problems cited above are also evident in figures 1 and 2. At Priest Rapids Dam several years show a pattern of fluctuations between weekdays (above minimum) and weekend days (below minimum). This is a function of reduced power demand on weekends. In many cases the weekly flow would average out to the recommended minimum

and, in fact, this was the objective of the power system operators in some years.

- At Lower Granite Dam it is not weekly load shape but refill that competes with fishery flows. Note now in most years flows are lower in late-April and early-May then increase in late-May and early-June. This is in part due to the timing of the snowmelt. However, it is also a reflection of operation to achieve reservoir refill objectives (95 percent probability of being 98 percent full at the start of the operating year on July 1). Reservoirs have been drawn down prior to this period for flood control so that the timing of the runoff is largely a function of the weather (i.e., it must either rain or warm up enough to cause snowmelt). Then once the runoff has started, the reservoir operators' first priority is to refill (although the Council's Program assigns a higher priority to fishery flows). As illustrated in Figure 2, however, flow could be increased to meet recommended minimum levels during the early periods without changing the total volume of flow over the April 15 - June 15 period. The disadvantages, from a power perspective, are that there would be less assurance of refill, and that the turbines at the storage projects would operate for a longer period at reduced hydraulic head (thus reducing power generating capability).

- Thus compared with conditions before enactment of the Northwest Power Act, there has been little change in flows provided for fish. There have been significant problems with implementation of the Water Budget, most acutely in the Snake River. The Water Budget has not yet been put to the true test of a dry water year, such as occurred in 1973 and 1977.

V. Interim protection using spill -- a mixed result

A. Spill before the Fish and Wildlife Program

- Prior to 1977, management of spill for fishery purposes was solely for control of dissolved gas supersaturation.

- Beginning in 1977 Federal dam operators agreed to provide some spill for fish protection even if it meant foregoing some power sales to the export market.

- BPA also offered to transfer whatever Federal surplus energy was available to the Mid-Columbia PUD's for spill programs under FERC order.

- Through the COFO process, the fishery agencies recommended 20 percent spill for both spring and summer

migrations at all projects without juvenile bypass facilities.

- In 1978, 20 percent spill was even included in the pre-season plan. However, it was subject to language to the effect that the amount, duration and shape of spill would be determined in season by the project operator. In practice, unless there was surplus in the system, 20 percent was attained only for the peak of the spring migration if at all, and no spill protection was provided for summer migrants.

B. Mid-Columbia PUD Dams

- In 1979, based on petitions of the fishery agencies and tribes, the FERC issued an order specifying a spring spill program for the PUD projects that included a minimum of 10 percent spill for 30 days.

- A specified volume of 780,000 acre-feet per project was set aside for fish spill, and a supplemental 100,000 acre-feet was available for an additional 15 days in the event that 80 percent of the migration did not pass in the initial 30-day period.

- This spill program was carried over into the FERC Settlement Agreement that went into effect the following year.

- In 1982, based on the results of studies conducted under the Settlement Agreement, the fishery agencies and tribes petitioned the FERC to increase spill required at the PUD projects to 40 percent.

- Recognizing that the data did show 10 percent spill to be ineffective in providing juvenile fish protection, the PUD's responded to this petition with a proposal to spill 20 percent.

- At this time the initial Fish and Wildlife Program was adopted, including a requirement for 20 percent spill at each PUD project for 30 days.

- At a FERC conference the PUD's agreed to provide 20 percent spill at each project and to test higher levels beginning in 1983.

- Based on these tests, modifications were made in 1984 that increased protection to as high as 30 percent at some projects.

- Beginning in 1985 a Stipulated Agreement took effect resulting in further improvements at the PUD projects.

- At Priest Rapids and Wanapum dams the Stipulation provides for specific spill volumes of 1.5 to 2.0 MAF, roughly equivalent to 19 and 24 percent spill (daily average) at the two projects respectively (based on May flows of roughly 140 kcfs).

- At Rocky Reach Dam spill up to 10 percent of daily average flow is provided to achieve 30 percent bypass for spring chinook. This relatively low level was selected in recognition of low spill efficiency and of the accelerated bypass development program at Rocky Reach Dam.

- At Wells Dam up to 30 percent of the instantaneous flow is provided to achieve 50 percent bypass for 30 days. If 50 percent bypass can be achieved with less than 30 percent spill, then the spill period is extended.

- Rock Island Dam is not covered under the Stipulation and is subject to continuing litigation. In 1985 the operator voluntarily agreed to provide a low level of spill based on a powerhouse flow formula over fishery agency and tribal objections that the resultant spill was inadequate.

- There is no interim spill protection for summer migrants at any of the PUD dams, though limited summer spill studies are provided for in the Stipulated Agreement.

C. Federal Dams

- In contrast, the Federal projects have lacked the clearly defined spill passage objectives and much of the recent progress experienced at the PUD projects.

- Figure 4 illustrates daily average flow and spill at Lower Monumental Dam from April through July for 1977 to 1985. (Lower Monumental Dam is of particular interest because there is no adequate bypass facility.) Without additional information on hours of spill or patterns of fish movement it is not possible to draw any conclusions regarding the provision of spill for fish passage or the fishery benefits of such spill. The Figure does, however, provide some sense of the variability of spill at Lower Monumental Dam and of its dependence on total flow.

- In 1979, the fishery agencies and tribes argued that the 10 percent required at PUD projects should also be provided at Lower Monumental, Ice Harbor and the four Lower Columbia dams rather than the program outlined by the Corps. This issue was not resolved in 1979.

- As an example of the resulting spill program that year the COFO reported 3 percent of the daily average river flow at John Dam Dam was provided as fish spill from May 9 through June 10. The same report describes spill at Lower Monumental Dam as 25,000 cfs for 2 hours on each of 2 nights in early May, and 2,000 cfs surface spill for 2 to 5 hours on each of another 6 days.

- Beginning in 1980 the Corps agreed to provide up to 10 percent spill for fish protection at Lower Monumental, Ice Harbor, McNary and John Day dams if and when monitoring showed that significant numbers of fish were present. Spill was not included at The Dalles and Bonneville since the ice and trash sluiceways were to be operated and since, at Bonneville, large amounts of involuntary spill were expected.

- In practice, the discretion that the Corps retained, to determine when the fish were present (on a seasonal and a diel basis) and to decide how much to impact power, resulted in substantially less water being used for fish protection that would have been provided with a straight 10 percent as required of the PUD's.

- Spill for fish passage was discontinued at McNary Dam in 1981 when powerhouse screening was completed.

- In 1983 the Corps agreed to provide up to 50 percent of the instantaneous project flow as spill at Lower Monumental, Ice Harbor and John Day dams. However, since daily spill periods were not to exceed 4 and 5 hours at Ice Harbor and Lower Monumental respectively, this did not appreciably affect the amount of water spilled at those projects. At John Day Dam, the daily spill period was at the discretion of the on-site Corps biologist and in 1983 averaged 8.9 hours.

- In 1984, based on results of sluiceway efficiency studies in 1983, and over the objections of the fishery agencies and tribes, the Corps stopped all fish passage spill at Ice Harbor Dam.

- Between the 1984 and 1985 juvenile fish migrations the Council amended the Program to require 90 percent survival at each mainstem Corps project except Bonneville Dam where the objective was to pass 85 percent of the juvenile fish by non-turbine routes.

- There was no change in fish passage spill at Lower Monumental Dam in 1985.

- At John Day Dam spill was reduced in 1985 as a result of partial powerhouse screening.

- Improvements in 1985 included the initiation of spill at The Dalles (at up to 10 percent of daily average flow) and the resumption of spill at Ice Harbor (at up to 12.5 percent of daily average flow).

- Spill at The Dalles was discontinued on July 10 and there was no summer spill at any of the other projects even though the Corps' own criteria for significant numbers of fish were exceeded by a substantial margin.

- At Bonneville second powerhouse, three units were operated during the day throughout the spring migration, but were shut off at night in accordance with agency and tribal requests. The second powerhouse was not operated in the summer of 1985 except as needed for research.

- In August 1985, in response to concerns expressed by the fish and wildlife agencies and tribes about the implementation of the spill provisions of the Program, the Council solicited their recommendations for strengthening those measures. The fishery agencies and tribes made specific recommendations to improve the interim juvenile fish survival objective at the Corps' projects and to provide for their own participation in spill planning and implementation.

- In February 1986 the Council rejected those recommendations and reaffirmed the 90 percent survival objective. They did specify, however, that the 90 percent objective should be met in both spring and summer (until August 15) even when it would impact firm power.

- The Corps has indicated that they will likely follow that directive. However, they have also said that since they now must provide spill even at the expense of firm power, they will plan to spill only the minimum levels needed to meet the 90 percent survival regardless of water conditions.

- As a result, spring spill has been eliminated at Ice Harbor and substantially reduced (to 5 percent of daily average flow) at The Dalles. On the positive side, there may be some summer spill at Lower Monumental, John Day and The Dalles dams.

- Remaining concerns about the adequacy of the spill objectives currently in the Program for Federal projects are much the same as the concerns expressed regarding the Water Budget. Like the Water Budget, the spill levels included in the Program were based on what would be a reasonable spill amount (resulting in an equitable balance) under critical low flow conditions.

- In 1986, however, in spite of the fact that projected flow conditions are well above critical water, the Corps' spill plan includes only the minimum required by the Program. According to that plan, spill above these minimum levels may be provided at the discretion of the Corps.

- In comments on the Corps' 1986 plan, the Power Planning Council made it clear that the 90 percent survival objective "only established the minimum level of spill," and that additional spill should be considered. The fishery agencies and tribes have informed the Corps that they will request spills above these minimal levels consistent with their Detailed Fishery Operating Plan when there is a surplus of Federal firm power or when Federal non-firm power exists (an indication of conditions above critical water).

- At the time of this writing such spill requests were being made by the fishery agencies and tribes and were being rejected by the Corps. The justification for rejecting these requests has been that they are inconsistent with the Corps' spill plan.

- The Bonneville Power Administration is also once again attempting to use their contractual authority over the Fish Passage Center to undermine their effectiveness as representatives of the fishery agencies and tribes. BPA has proposed language to amend the contract under which the Water Budget managers operate to prohibit them from making any spill request that is inconsistent with the Corps' plan. The proposed language would also prevent the managers from including in their annual reports any reference to spills except "factual data-oriented discussions of the spill requests within the framework of the Corps' Juvenile Fish Passage Plan."

- This BPA action is indicative of the problem addressed by the second half of the amendment recommendation that was rejected by that Council along with the improved objectives, namely, the role of the fishery agencies and tribes in spill planning and management. The fishery agency and tribal recommendations to the Council to address the institutional and management issues were not rejected on their merit. Instead, in their response to comments (Federal Register Notice, March 5, 1986, page 7655) the Council stated that these issues "have not been adequately examined and explained by the parties in this interim rulemaking," and therefore "the Council is not attempting to resolve all the management and institutional issues raised by the commenters in this rulemaking." This is consistent with the intent

expressed by the Council in consultations with the fishery agencies and tribes to defer these issues in the "fast-track" amendment so that they could be considered more thoroughly in the regular amendment process now underway.

- The Corps has no fishery management authority. Yet the Program assigns the Corps the responsibility of developing and implementing the annual spill plan. This is a fisheries protection plan and as such its assignment to the Corps for development is inappropriate.

- Agency and tribal recommendations for a jointly-agreed-upon plan, and for dispute resolution through the Council in the event that agreement could not be reached, were rejected. Instead the Council's February 1986 amendment requires the agencies to specify dates, hours and other criteria to trigger spill, and requires the Corps to incorporate those criteria into their plan. The agencies and tribes developed such criteria in consultation with the Corps and the other power interests but the Corps independently reevaluated these criteria and failed to incorporate some of them into their 1986 plan.

- The February 1986 amendment further required the Corps to consult with the Water Budget managers regarding any in-season modifications to the spill criteria. The agencies' and tribes' spill criteria identified specific issues and questions on which such consultation would be necessary based on decisions that would require in-season data. They also outlined consultation mechanisms that would overcome obstacles cited by the Corps in the review of the draft spill criteria. At the time of this writing such consultations are not taking place.

D. Conclusions

- There has been substantial progress in spring spill protection at Priest Rapids, Wanapum and Wells dams, with the cooperation of the PUD's. There has been no change at Rocky Reach and significant backsliding at Rock Island. There still is no summer spill protection at any of the PUD dams.

- At the Federal projects there has been progress in the establishment of a specific objective, the requirement of an annual plan and the requirement that the objective be met regardless of water conditions. However, the effectiveness of each of these positive factors in improving juvenile fish survival is diminished either by

fundamental problems left unaddressed by the Program or by the Corps' interpretation of Program language. Either could be remedied through Program amendment.

- The 90 percent survival objective may be adequate as a baseline to be met or exceeded at all times, but it is now being treated as a ceiling despite good water conditions and a large surplus of firm energy capability in the system. This is inappropriate since it was developed using worst case power impact assumptions. It is also a difficult objective to manage for, due to the number of assumptions necessary to relate project operations to fish survival and to the lack of data on which to base such assumptions.

- The requirement of an annual plan for managing spill is good. However, as long as there is no requirement for fishery agency and tribal concurrence there will be no incentive for the Corps to produce anything but a Corps plan. Assignment of this responsibility to the Corps, as the Program does, is inappropriate. It conveys to them an authority for the management of water as fish habitat that rightly belongs with the fishery agencies and tribes. The Corps has readily accepted this authority citing their multipurpose responsibilities and the fact that it affects "their" projects. Carrying this logic to other Corps' responsibilities might lead one to believe that the Corps should manage barge traffic that passes through "their" locks or electricity generated by "their" turbines.

- Finally, the Council's decision that the 90 percent objective must be met even at the expense of firm power is a breakthrough. Whether it will have the desired effect on fish survival is not yet known but early indications are not promising. In response to the Council's February 1986 amendment the Corps has submitted project operating constraints to the coordinating group under the Pacific Northwest Coordination Agreement. These constraints will be factored into planning for the 1986/87 operating year that begins on July 1. The effect will be to de-rate the power system by the amount necessary to provide a predetermined spill volume at specified projects for specified durations. The Corps had already been including such constraints in their data submittals under the Coordination Agreement since 1983.

- In spite of the fact that the Corps has so de-rated the system, however, they still maintain that the specified spill will only be provided if they determine that it is (1) warranted based on numbers of fish present and (2) acceptable in view of power marketing conditions. In

fact, the Corps had so provided for spill at The Dalles Dam in 1985 in July and August. Spill was discontinued on July 10, however, even though the Corps' data from John Day Dam immediately upstream showed daily fish passage estimates in the range of 100,000 to 600,000 fish per day until July 24 when monitoring was discontinued. (John Day Dam was used as the monitoring site for management of spill at The Dalles Dam due to an established monitoring capability. Travel time between the dams during July is likely to be in the range of 2-3 days.) Likewise the Corps has already informed the fishery agencies and tribes that spill at the level specified in their submittal under the Coordination Agreement for The Dalles Dam will not be provided in May 1986. The next test of the Council's amendment will come this summer.

VI. Juvenile Fish Bypass Facilities -- slipping

A. Bonneville Dam

- The first powerhouse design was complete and second powerhouse facilities already under construction when the Program was adopted; they were completed in 1984 and 1983 respectively.

- Due to poor fish guidance efficiency (FGE) in the second powerhouse, the Corps shut it down during the 1983 migration. (FGE is a measure of the success of the screen system in deflecting fish out of the turbine intake and into the bypass.)

- With studies underway to improve the second powerhouse, the Corps agreed to run only 4 turbine units in 1984 unless additional units were needed to meet energy demands.

- By 1985 the Program was amended to require shutdown of the second powerhouse during the migration except for research or to meet firm power demand.

- In 1985 three units in the second powerhouse were operated daily throughout the spring migration. In accordance with agency and tribal requests these units did not operate at night. With reduced flow throughout much of the summer migration the second powerhouse was not operated until September when operation was requested by the fishery agencies and tribes for adult fish collection.

B. The Dalles Dam

- The ice and trash sluiceway has been operated for fish passage since 1971.

- Research conducted from 1977 to 1982 identified operating criteria to maximize fish passage for spring migrants and estimated maximum efficiency as 40 percent.

- The Program, as amended in 1984, requires the development of a permanent juvenile fish passage plan by June 30, 1986, and bypass installation by the end of fiscal year 1989. A prototype test was conducted in 1985. Tests are continuing in the spring of 1986. The Corps reports that they will complete a feasibility report on a bypass and other alternatives by December 31, 1986. A target for bypass installation by 1989 may still be possible, but the Corps has made no commitment to bypass construction or to completion by 1989. The Corps has proposed a Fish and Wildlife Program amendment that would slip the required completion until 1992.

C. John Day Dam

- The Program requires completion of a juvenile bypass facility at John Day Dam by March 1986. When this measure and schedule were adopted the Corps had already committed to both. At the start of FY84, based on available funds in that year and projected funding levels in FY85 and beyond, the Corps indicated that construction completion would be delayed until 1988. The fishery agencies, the tribes, and the Council worked successfully to have funding restored to levels that the Corps considered necessary for a 1986 completion.

- Since that time, construction bids in excess of Corps' projections and other delays led to further schedule slippage, and construction is now expected to be complete in early 1987.

D. McNary Dam

- The Program requires continued evaluation and upgrade of the McNary Dam juvenile bypass facilities. Minor facility improvements have been accomplished since adoption of the Program. These improvements addressed specific problem areas identified in the facilities as a part of the ongoing fish transportation program.

- The major outstanding problems with the existing facilities at McNary are poor guidance efficiency for subyearling fall chinook and inadequate raceway capacity for the increasing downstream migrant population. (Fish

are held in raceways while awaiting transportation to below Bonneville Dam.)

- Potential modifications to improve fall chinook guidance efficiency were studied in 1984 but no solution was identified. Over the objections of the fishery agencies and tribes, this research was dropped in 1985. The Corps proposed deferring this research again in 1986, but finally agreed that the work was of sufficient priority for funding.

- The capacity problem is one that was anticipated. As wild runs increase and major new artificial production facilities begin to attain planned production levels under the Lower Snake River Fish and Wildlife Compensation Plan, substantial increases in the number of fish arriving at McNary Dam will overwhelm the holding capacity of existing facilities. Expansion was an initial recommendation of the fishery agencies and tribes in 1981 and is already in the Program. The Corps had been considering expansion of the juvenile fish facilities as part of the McNary second powerhouse studies, but those studies have been discontinued. The fishery agencies and tribes have proposed a Program amendment to require completion by 1988. The Corps' current schedule indicates a planned completion in fiscal year 1992.

E. Ice Harbor Dam

- Structural modifications and operational studies to maximize juvenile fish collection efficiency of the ice and trash sluiceway were completed in 1983. The sluiceway has been operated at maximum efficiency since that time.

- Since the sluiceway alone provides inadequate juvenile fish protection, the Program requires juvenile bypass prototype studies in 1985, development of a permanent juvenile fish passage plan by July 31, 1986, and installation of a juvenile bypass system by 1989. There has been no progress on these measures. The prototype studies are now scheduled for 1987, but the Corps has indicated that they view these studies as relatively low priority and that they could therefore be delayed still further if funding is limited.

- The 1985 completion date for prototype studies was based on a schedule that the Corps said would be necessary for a 1989 completion. Therefore there is little likelihood that needed improvements could be implemented by 1989. The Corps has proposed a Fish and Wildlife Program

amendment that would slip the required completion until 1992.

F. Lower Monumental Dam

- The Program requires prototype studies in 1985, development of a permanent juvenile fish passage plan by July 31, 1986, and installation of a juvenile bypass system by 1989. There was no progress on these measures prior to this year, but prototype studies are now underway. These studies are part of what the Corps terms as a feasibility study that is planned for completion in December 1986.

- A target for bypass installation by 1989 may still be possible, but there has been no indication that the Corps has made a commitment to bypass construction or to completion by 1989. The Corps has proposed a Fish and Wildlife Program amendment that would slip the required completion until 1991.

G. Little Goose and Lower Granite Dams

- Major modifications at Lower Granite in 1982 and 1983 included a new fish separator, expanded raceway capacity, and a log boom to divert floating debris. At Little Goose numerous interim measures have been implemented to reduce injury and mortality and more permanent modifications (involving near complete reconstruction of the facility) are scheduled for completion in 1991. These activities have been an ongoing part of the fish transportation program since its inception.

- Outstanding problems at these facilities are poor fish guidance efficiency for spring chinook and delay in reconstruction of the Little Goose facility. The Program-specified completion date of 1987 for the latter has had no effect on the Corps schedule. The Program does not specifically address the guidance efficiency problem. However, research in 1985 confirmed earlier studies indicating that a modification to raise the operating gates would substantially improve guidance at Lower Granite Dam. The same modification is being tested in 1986 at Little Goose Dam. The fishery agencies and tribes have urged the Corps to move forward as fast as is possible and have submitted a Program amendment to specify a schedule.

H. Mid-Columbia PUD Projects

- When first adopted, the Program required installation of complete juvenile fish bypass systems by 1990 at all

projects except Priest Rapids where a short term study of transportation was allowed to run through 1988. In the 1984 amendments Wanapum was slipped to 1988, Priest Rapids was added for 1988 completion, and the target completion date for Rock Island was deleted.

- o While there have been a number of design studies conducted under the direction of the FERC Settlement Agreement and the 1985 Stipulation, there have been no facilities nor even facility designs developed for these projects to date. Ongoing studies at Rocky Reach and Priest Rapids dams could lead to screen bypass development, but 1989 is now the earliest feasible date for their operation.

I. Bypass Facility Summary

- o Complete juvenile fish bypass facilities were in place at Lower Granite and Little Goose prior to 1980. Facilities were added at McNary in 1981, at Bonneville in 1984 (first powerhouse), and a partial system at John Day in 1985. Completion of the John Day facility is expected in 1987. Facilities at Bonneville second powerhouse were completed in 1983 but due to low fish guidance efficiency, the juvenile fish bypass system is not yet considered operational. These facilities were all planned, under construction, or in operation when the Act was passed in 1980. Since passage of the Act and adoption of the Program, and in some cases after an initial delay, the Council has adopted fishery agency and tribal recommendations for bypass facility development at the other three Federal projects and at the five PUD projects (the Council has since reversed itself in the case of Rock Island Dam).

- o Progress on design studies at the PUD projects has generally followed a schedule agreed to by the fishery agencies, tribes and project operators. Based on that schedule, it is conceivable that permanent facilities could be in place as early as 1988-90 at all PUD projects except Rock Island. In the case of the three outstanding Corps projects, there has been less progress. Prior to this year, studies had been conducted only at The Dalles Dam (1985). Studies are continuing at The Dalles and were initiated at Lower Monumental in 1986. Based on the Corps' statements in the last amendment process that five years are required between initiation of studies and bypass completion, the earliest online dates for these two facilities are 1989 and 1990 respectively. In neither case, however, has the Corps committed to development of these facilities.

- o Figures 5 and 6 at the end of this section illustrate how far we have come in providing juvenile fish bypass facilities at the 13 mainstem dams, and how far we have yet to go. It should be noted that all of the progress reflected in these figures has been at Corps' projects. Looking at the Corps' projects independently would show that over one-half of the turbine units have been screened over the last 10 years.

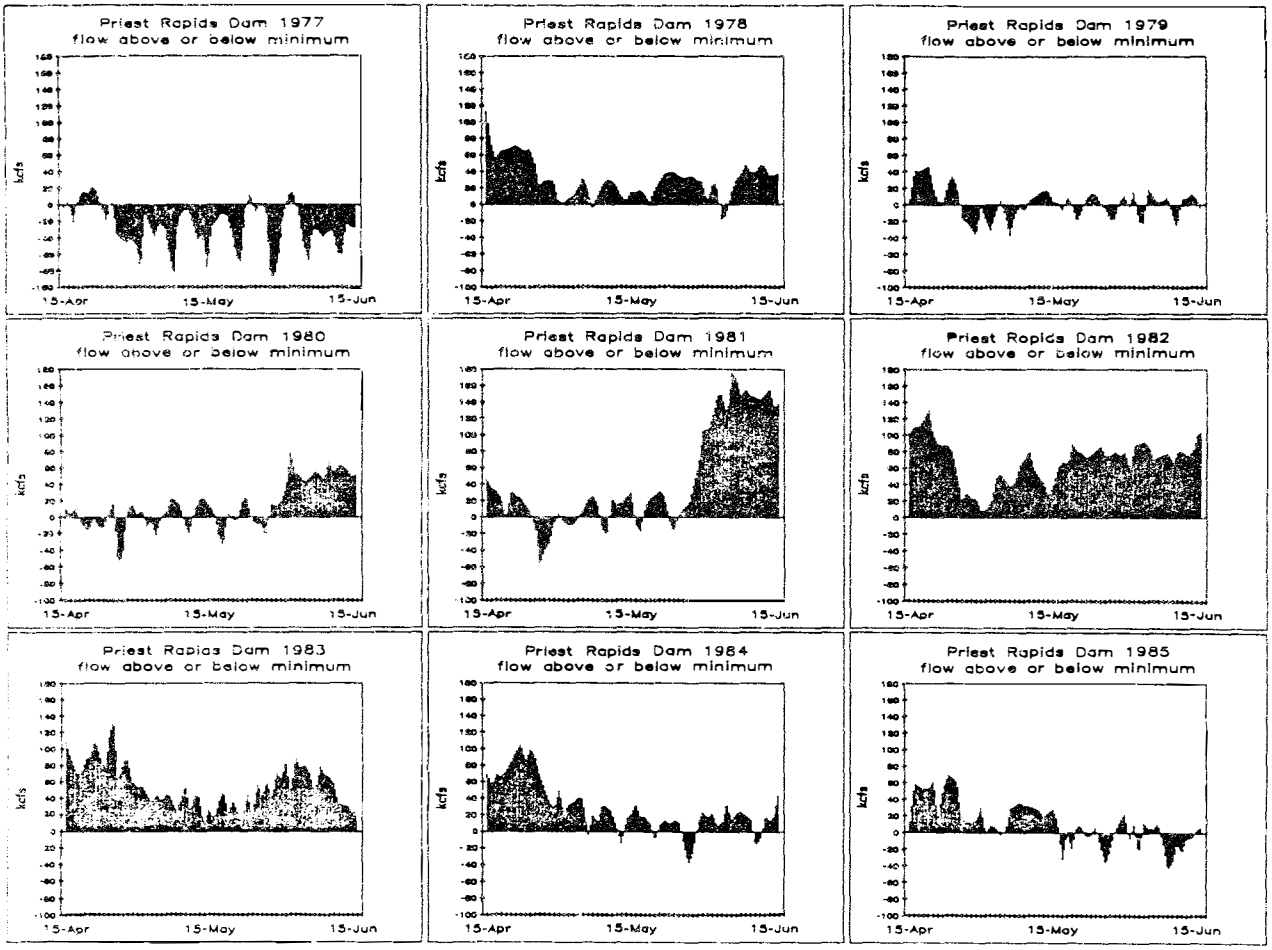


FIGURE 1

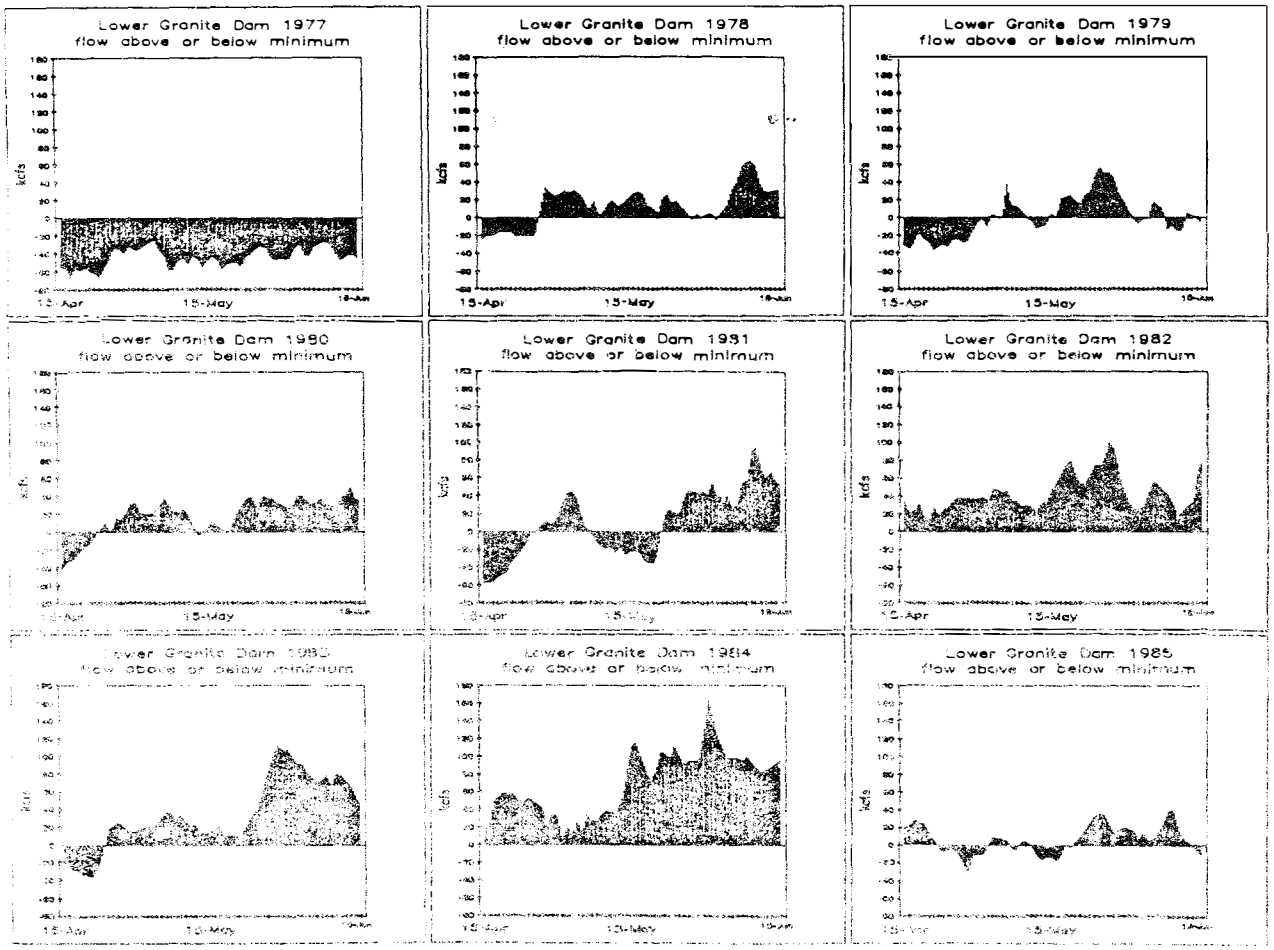


FIGURE 2

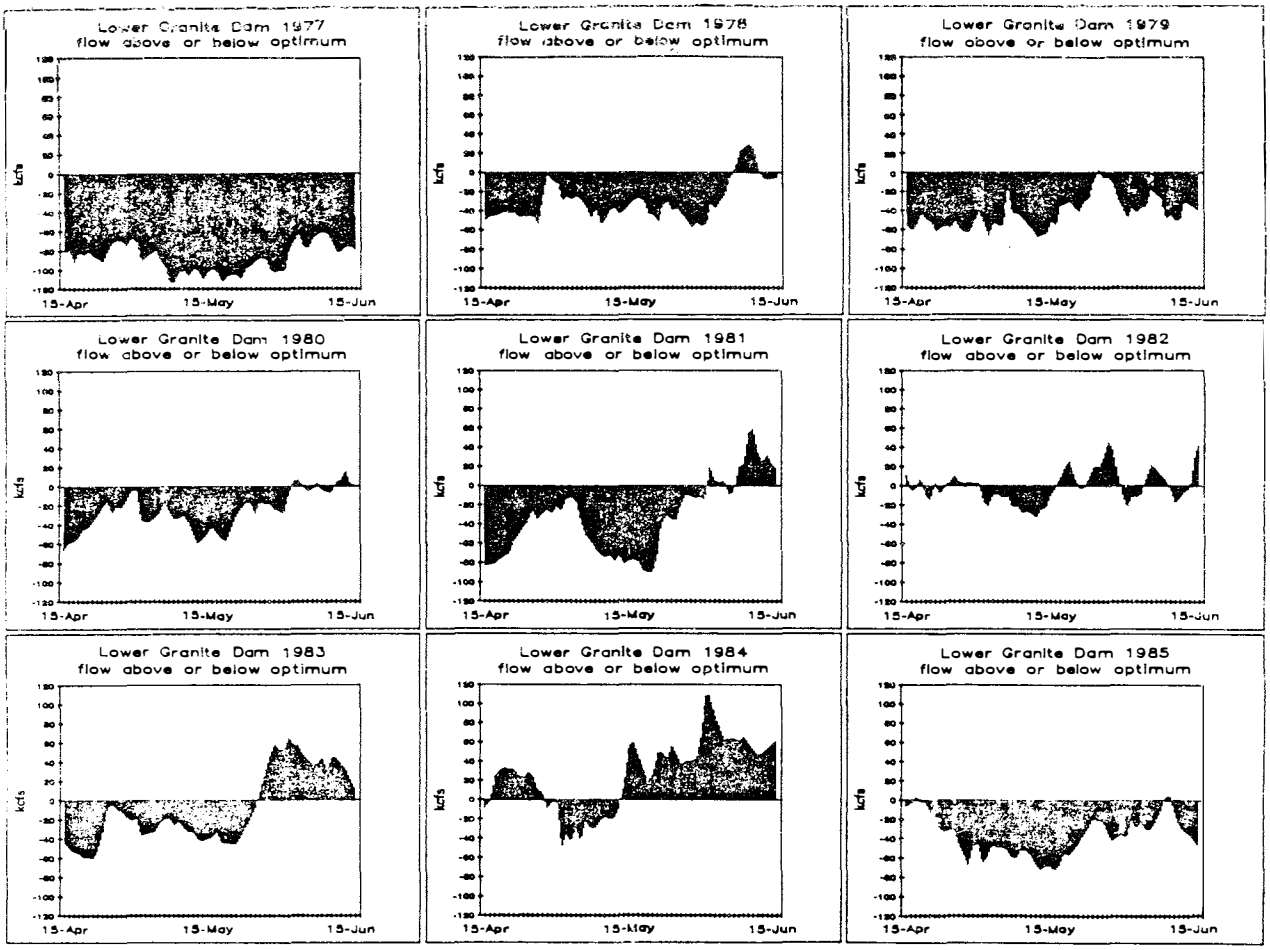


FIGURE 3

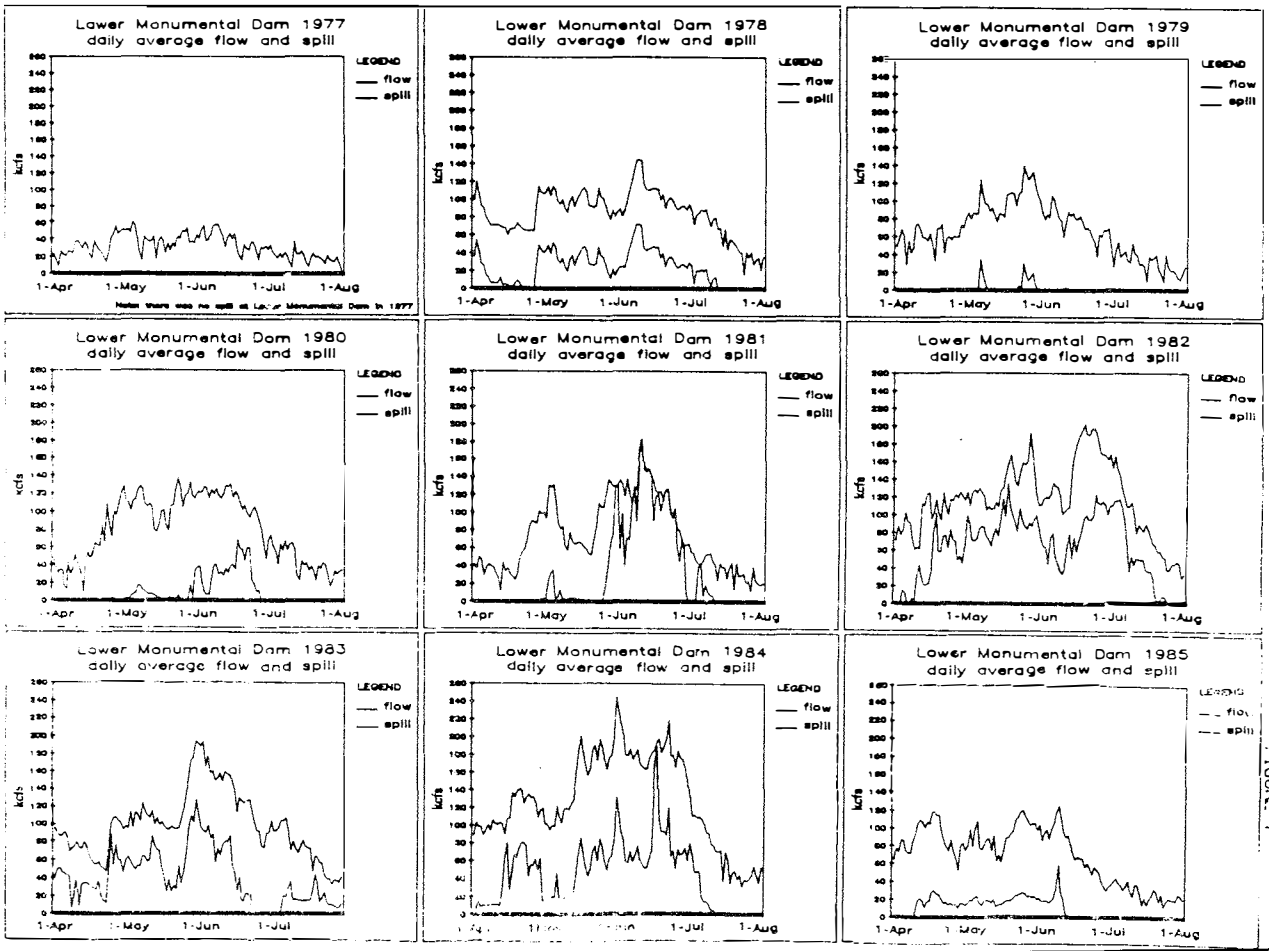
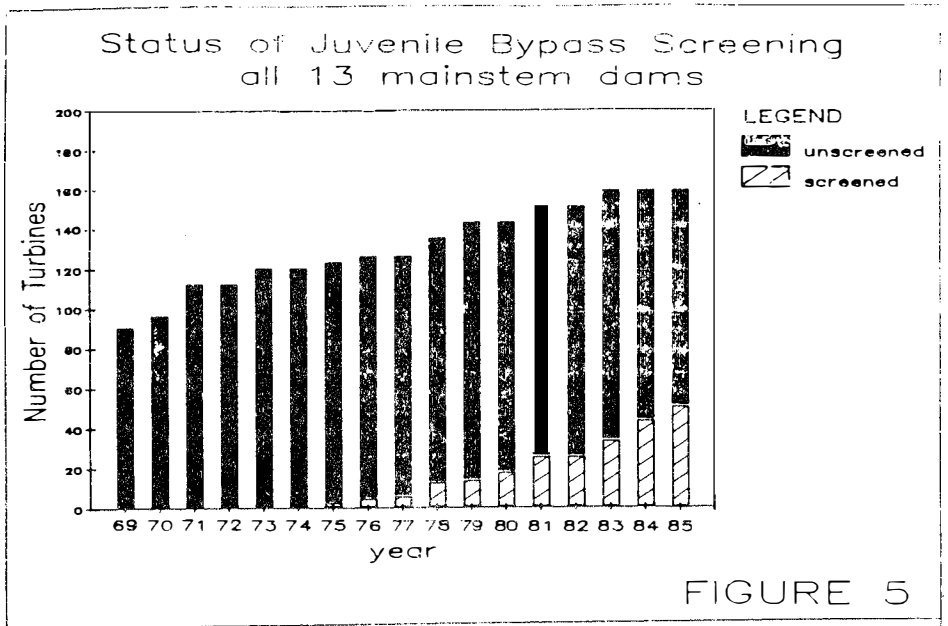


FIGURE 4



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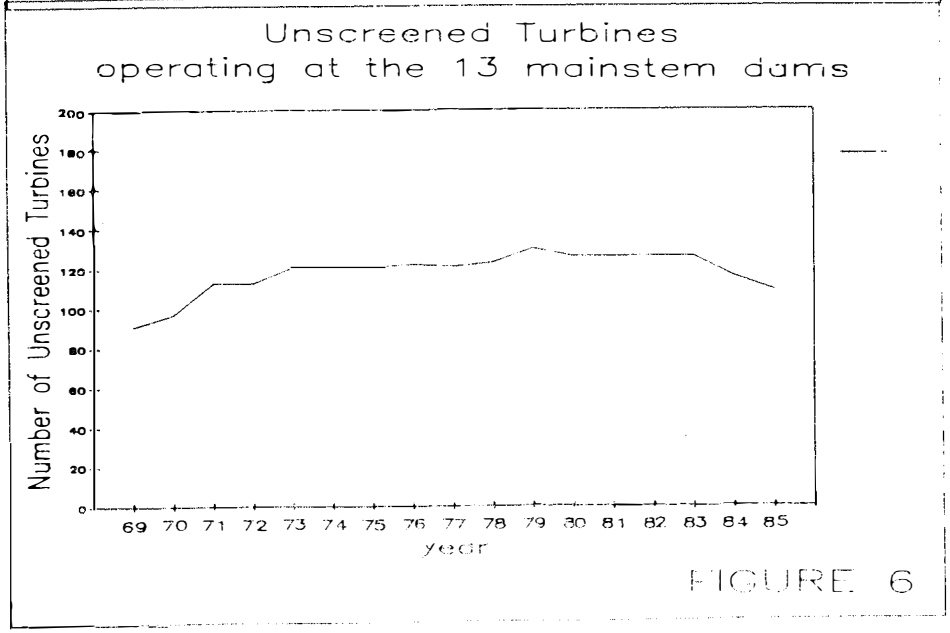

FIGURE 6

Section 3: Conclusions and Recommendations

- There has been very little progress toward achieving the equitable balance and co-equal treatment for fish and wildlife that the fishery agencies and tribes had hoped for and thought the Act would provide. The fish and wildlife agency and tribal seat-at-the-table in system planning and operational decisions has not been occurred. Instead, the Federal project operators and regulators (including BPA) are attempting to implement the fish and wildlife provisions of the Act and the Program by assuming fisheries management authorities.

- As a result we are about where we were before in terms of providing flows of sufficient quality and quantity to improve production, migration and survival of salmon and steelhead. The potential progress promised in the Water Budget, namely management of a volume of water by the fishery agencies and tribes for maximum fish survival and priority for fish flows above refill and non-firm power, has not been carried out in implementation. Furthermore, recent reinterpretations of the Water Budget measures by the Bonneville Power Administration will further undercut efforts to maintain sufficient flows for fishery purposes. Specifically, treatment of the Water Budget as a limit to the amount of flow that will be provided for fish regardless of flow conditions ignores the fact that the size of the Water Budget was determined based on the amount of water that could be provided in a critical low flow year while still meeting all power purposes including refill.

- In the case of the Act's mandate to provide for improved survival of salmon and steelhead at hydroelectric facilities the results are mixed. While there have been no facilities built under the Act or the Program that were not already planned in 1980, we have seen some movement toward the development of juvenile fish bypass facilities at several projects. This has been particularly evident in the case of the Mid-Columbia PUD projects where FERC orders or negotiated agreements accepted by the FERC have resulted in agreements on both facility requirements and schedules. At the Corps projects slippage from schedules now in the Program is more the trend. The Corps has even submitted formal amendment recommendations to the Council that would delay further bypass facility development another 2-3 years beyond the target completion dates now in the Program.

- Interim spill programs to improve survival at these hydroelectric projects have also had mixed results.

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- Interim spill programs to improve survival at these hydroelectric projects have also had mixed results.

Again at the Mid-Columbia projects progress is much more evident although there has been no change at Rocky Reach, substantial backsliding at Rock Island, and there is still no summer spill program at any PUD project. The spring spill program at the Corps' dams while realizing a slight improvement in 1985 has been undercut as a result of the Council's February 1986 amendment process and is about where it was in 1980 (unless this happens to be a critical year in which case we can expect juvenile fish spills at Corps projects greater than we would otherwise have experienced). The expected summer spill program at Corps' projects in 1986 represents a substantial improvement.

- While this report may conclude that the Act and the Program have not led to any substantive improvements in the survival of salmon and steelhead affected by the development and operation of the Columbia Basin hydroelectric system, the basic tools which they both provide should not be underestimated. With the exception of the February 1986 amendment, the Power Planning Council has provided strong support in the Program for the initiatives of the fishery agencies and tribes to improve survival. For example, in recent contract disputes between the Fish Passage Center and BPA concerning the Center's role in spill management the Council supported the fishery agencies and tribes and amended the Program to explicitly include spill management among the duties of the Water Budget Managers. The Program also specifies that the Water Budget should have priority above secondary power and refill, that the spill objective of 90 percent survival is a minimum rather than a maximum, and that the development of juvenile fish passage facilities at all projects (except Rock Island) should be aggressively pursued.

- Thus it should be recognized that things could be worse. There is some possibility that the February 1986 amendment was a turning point for the Council. There are other examples, most notably in the Council's current process for the development of production objectives, indicating that the Council is beginning to treat the fishery agencies and tribes in the same way that the project operators do. That is they are themselves beginning to develop the capability and the willingness to challenge the fishery agencies and tribes on the appropriateness or soundness of the biological objectives inherent in their recommendations, rather than accept the agencies and tribes as the knowledgeable (and legally responsible) entities on such matters. This is inconsistent with the specific provisions of the Act requiring that the Council give deference to the

"expertise, and legal rights and responsibilities" of the agencies and tribes.

- It must be recognized that this is not simply a question of who is in charge. There are serious limitations to the available scientific knowledge regarding the effects of the hydroelectric system on salmon and steelhead, and on how best to manage those resources in light of those impacts. Many of the uncertainties are due to natural fluctuations and can not be expected to be resolved to the point that would allow for strictly data-based decisions.

- In similar situations in other disciplines, the response is to be conservative. The Corps' assumptions on flood control, or BPA's assumptions on firm power, for example, are extremely conservative. What we are now seeing in implementation of the Fish and Wildlife Program, however, is the re-interpretation of available fisheries data by the power interests to assure that all of the risk stays on the side of fish and wildlife. The incremental benefits of varying assumptions within the range of available data are then compared with the revenue loss estimates or reservoir impacts that are based on their very conservative assumptions. The fishery agencies and tribes on the other hand recognize and respect the expertise and authority of the project operators to make what assumptions they deem necessary in the fulfillment of their obligations.

- Until recently, the Council had respected the deference to the fish and wildlife agencies and tribes required by the Act and had refrained from trying to become what Congressman Dingell referred to as a "superfish and wildlife agency." The February 1986 amendment, however, was counter to that practice.

- The package of amendments currently under consideration is loaded with recommendations that will affect juvenile fish survival, including measures affecting flow, spill, bypass development and fish transportation. The Council decisions on these amendments could be affected by this change in the approach to decisionmaking.

- The fishery agencies and tribes must encourage the Council to support timely and effective implementation of existing measures.

- The fishery agencies and tribes must advocate an appropriate role for themselves in Program implementation.

Table 1: Flow Recommendations of the Fishery Agencies and Tribes

	Minimum			Optimum		
	Lower Granite	Priest Rapids	The Dalles	Lower Granite	Priest Rapids	The Dalles
	----------	----------	kcfs	----------	----------	----------
April 16–25	85	70	160	110	100	225
April 26–30	85	110	200	120	120	250
May 1–31	85	130	220	140	140	300
June 1–15	85	110	200	120	120	250

Source: Initial Recommendations for the Protection, Mitigation, and Enhancement of Anadromous Fish in the Columbia River Basin, Fish and Wildlife Agencies and Tribes, November 13, 1981

EXHIBIT F

COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION
975 S.E. Sandy Boulevard, Suite 202, Portland, Oregon 97214 Telephone (503) 238-0667

Attachment
TIE-1-87

November 25, 1986

Janis Carpenter, Director
Fish and Wildlife Division
Northwest Power Planning Council
850 S.W. Broadway, Suite 1100
Portland, Oregon 97205

Dear Jan:

We have reviewed the Water Budget Managers' 1986 Annual Report and wish to underscore their conclusions and recommendations, particularly with respect to flow management. As you know, the CRITFC and CBFWC jointly recommended that the Council amend the Program's Water Budget accounting provisions. Earlier this year at Ketchum, Idaho, Mal Karr briefed the Council on problems with Water Budget implementation. Among other things, Mal suggested that a sliding scale power base for water budget accounting could resolve certain significant problems.

In light of the Water Budget Managers' recommendations and the December 15 deadline for submission of comments on the Draft Amendment Document, we are transmitting the attached proposal for a sliding scale power base. At this time, it is our intention to conform our comments on sections 304 (a)(1) and (2) of the DAD to the attachment and the recommendations contained in the Managers' Annual Report.

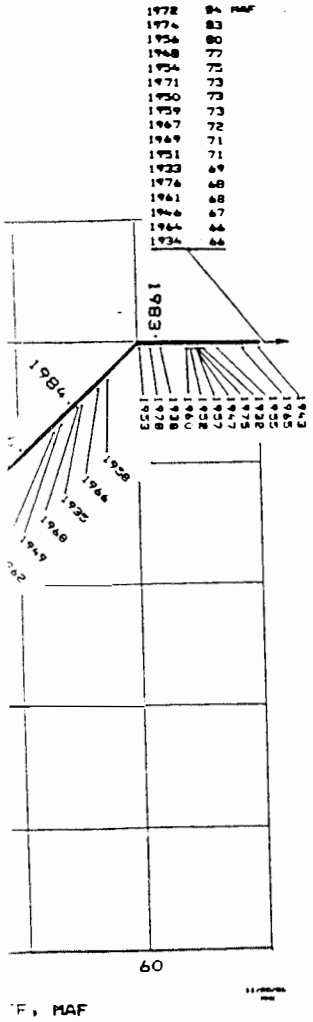
Sincerely,

S. Timothy Wapato

S. Timothy Wapato,
Executive Director

cc: State and Federal Fish
and Wildlife Agencies
Janet McLennan
Nick Dodge
Al Wright

attachments:



VIII. CONCLUSIONS AND RECOMMENDATIONS

FLOW FORECASTING

rors inherent in present forecasting methods, depending tude and direction of departure from actual values, will esent difficulties in properly utilizing system flexibility y provide desirable flows for fish passage.

exists with which to upgrade forecasting methods but funds re lacking with which to purchase, install, and maintain field monitoring stations of various types required, and information.

sting methods that can produce a demonstrated improvement ould prompt more flexibility in flood control and other le curves that are developed from such forecasts.

ed should jointly undertake a concerted effort to improve low forecasting methods, with first priority given to the because of its lack of storage capability with which to ecast errors in providing flows for fish.

986 mid-Columbia CPO for Water Budget implementation and ed well, it is unlikely that similar favorable circumstances he same manner or same order in future years.

from year-to-year in rainfall/runoff conditions and in nd power requirements presents a need to retain the system operations needed to respond to actual conditions n order to be able to provide suitable migration flows for especially to insure that at least 80% of the spring otected.

3. Sudden and often unpredictable changes in Snake River flows at Lower Granite because of the large amount of uncontrolled runoff makes the Water Budget implementation method proposed as a Fish and Wildlife Program amendment unsuitable for application in the Snake River.

4. The informal, trial agreement for 1986 Water Budget implementation and accounting for Dworshak Reservoir augmentation of flows at Lower Granite, although not fully tested, represents the best arrangement devised to-date, and a similar arrangement would apply to Brownlee Reservoir participation.

5. Lack of a BPA/IPC agreement for Brownlee Reservoir participation in providing Water Budget flows presently limits the volume of shapeable water in the Snake River to the amount of Dworshak Reservoir participation agreed to by the COE.

Recommendations

a. Flexibility in implementing the mid-Columbia Water Budget should be provided preferably by using a sliding scale power base for accounting, with a higher base for higher runoff years. This method would make weekly streamflow projections and Water Budget accounting acceptable.

b. Flexibility in implementing the Snake River Water Budget should be provided by allowing further testing of the informal, trial agreement, including accounting, adopted in 1986 for Dworshak Reservoir participation.

c. The needed BPA/IPC storage agreement to permit Brownlee Reservoir participation in providing Water Budget flows should be expedited, including Water Budget and accounting arrangements similar to those in 1986 for Dworshak Reservoir participation.

d. Whatever approach or approaches are adopted as a Fish and Wildlife Program amendment, the language should provide the flexibility needed to make in-season modifications to properly deal with real-time conditions as they occur.

COMMENTS OF THE WESTERN PUBLIC AGENCIES GROUP ON THE PROPOSED LONG-TERM INTERTIE ACCESS POLICY

The Western Public Agencies Group 1/ (WPAG) submits the following comments on the proposed Long-Term Intertie Access Policy (Policy). The WPAG appreciates the opportunity to comment on this important policy document.

The WPAG believes that the long-term policy governing Intertie use must achieve a number of objectives. It must optimize the value obtained by the use of the federal portion of the Intertie. It must ensure sufficient access for BPA to successfully implement its marketing program. And it must strike a reasonable balance between use of Intertie capacity for firm and nonfirm transactions. The proposed Policy achieves most of these goals.

Assured Delivery and Nonfirm Access

In striking the proper balance between Assured Delivery and nonfirm access, the WPAG believes that the primary concern should be protecting BPA's ability to market its firm surplus. The distribution of Intertie capacity between Assured Delivery and formula allocation represents a trade-off between sel... surpl... firm energy and nonfirm energy. To the extent that on... ...e of access predominates, the other commodity will suffer ...d access to the Southwest market.

It appears that the proposed Policy does provide adequate protection to ensure sufficient Intertie capacity will be available to BPA to market its surplus firm energy in the Southwest. In particular, the provisions contained in Sections C(3) and D will ensure that BPA will not be displaced from the Intertie, and that BPA will be able to implement its marketing program. The use of Exhibit B and declared firm surplus as a limit on allocations of Assured Delivery should make adequate Intertie capacity available for non-firm sales. This is a

1/ The Western Public Agencies Group is comprised of the following utilities: Clallam, Clark, Grays Harbor, Lewis, Mason No. 1, Mason No. 3, Pacific, Skamania, Snohomish and Wahkiakum Counties, Washington; Tillamook Peoples Utility District; Canby Utility Board; Elmhurst Mutual Power & Light Company; Lakeview Light & Power Company; Ohop Mutual Light Company; Parkland Light & Water Company; and Peninsula Light Company

reasonable approach under present conditions, but it may require reevaluation as the situation changes.

Conditions for Assured Delivery

Sections C, D and E of the proposed Policy impose a number of conditions for Intertie access for Assured Delivery. The WPAG finds these conditions generally to be either reasonable or necessary.

The requirement that a utility having access to non-federal transmission fully utilize it before receiving access to federal facilities will be of particular benefit. This provision should prevent the monopolization of the federal portion of the Intertie, and ensure that all potential users are provided a reasonable opportunity to obtain Intertie capacity.

Continued use of Exhibit B is also warranted. Using the utility's declared surplus as the upper limit for Assured Delivery puts all utilities on an equal footing. It should also result in a reasonable amount of Intertie capacity being available for nonfirm sales.

The criteria included in Section E(2)(b) should also serve to successfully distinguish firm from nonfirm transactions. It is vital that this be done correctly. Otherwise, Intertie capacity which should be used for firm transactions will be committed to nonfirm sales. This would be detrimental to BPA and the region.

Lastly, the proposed policy requires that the proposed transaction not increase the cost of Exchange Resources to the Administrator. This is an appropriate condition. The Administrator should not be expected to grant access to a transaction which causes the cost of statutorily mandated resource purchases to increase.

Capacity/Energy and Seasonal Exchange

The WPAG supports the priority accorded BPA's surplus firm power sales over Capacity/Energy and seasonal exchanges. Failure to do so could adversely impacts BPA's revenues and its ability to replay the Treasury. The proposed Policy does recognize that capacity/energy and seasonal exchanges may become appropriate as BPA moves towards load/resource balance. The proposed Policy contains adequate safeguards to protect BPA's interests as capacity/energy and seasonal exchanges are permitted on the Intertie.

Firm Displacement Sales

The WPAG feels that FD-supported extra-regional sales should

not be accorded priority or special treatment in determining access to Intertie capacity. Granting special priority to FD-supported sales could result in monopolization of the federal portion of the Intertie by privately-owned, non-federal utilities which already own a portion of the Intertie capacity. This would be contrary to Section 2b of the Bonneville Project Act, which contains a general charge to Bonneville that it avoid monopolization of the transmission system by limited groups.

Providing special treatment to FD supported export sales would also constitute discrimination against other utilities which elect to export resources and place their load growth on Bonneville under other rate schedules. Under such circumstances, the utility making the export sale would also be helping reduce Bonneville's firm surplus by increasing its firm purchases from Bonneville. However, merely because it did not utilize the FD rate to support its export, it would not obtain the preferential treatment accorded the FD purchaser. This treatment would constitute unreasonable discrimination.

Finally, preferential treatment of FD supported sales is contrary to the purpose and intent of the Regional Preference Act. FD sales constitute an indirect sale of federal resources which seek to circumvent the recall provisions required by the Regional Preference Act. These transactions deprive BPA's preference customers of access to federal resources, and they should not be granted priority access to the Intertie.

For these reasons, the WPAG believes that FD-supported export sales should not be accorded any special treatment or priority and should be treated identically to any other potential export sale seeking Intertie access.

Environmental Review

Instituting another layer of environmental review for New Hydroelectric Resources as part of the Intertie access determination is not prudent from either the administrative or policy perspective.

As a practical matter, new resources are subject to a stringent environmental review at the licensing stage, and compliance must be maintained throughout the life of the resource. Adding another layer of review at the time Intertie access is sought will likely add little but delay and confusion to the process.

Further, as a matter of policy, adding environmental review to the Intertie access decision will raise serious jurisdictional problems, and will encourage litigation. A utility which is in full compliance with all applicable environmental requirements in its license, and which is denied access for environmental

reasons, will undoubtedly seek judicial relief. Attempting to impose additional environmental obligations at the transmission access stage will also raise difficult issues regarding which federal agency has primary jurisdiction over such matters, and whether such activities by BPA usurp the jurisdiction of the FERC.

Both BPA and the region will be better served if the proposed Policy does not entangle Intertie access with environmental compliance. These matters should be left to the agencies with primary jurisdiction over them.

Canadian Power-Firm and Nonfirm

During this period of substantial regional surplus, the general rule should be that Canadian Firm Power should not receive Assured Delivery on the Intertie to the Southwest. This approach is necessary to ensure sufficient capacity for the sale of regional surplus, and to protect the interests of the region's ratepayers. This approach will also assist BPA in its efforts to ensure timely Treasury payments.

The proposed Policy does contemplate limited Assured Delivery for Canadian firm power on a case by case basis. Access to Assured Delivery would be contingent on a contract granting BPA reciprocal benefits, increase in Intertie capacity, and a finding of no substantial inference with BPA's marketing program. This approach does inject a modest amount of flexibility into the proposed Policy without opening the floodgates. Properly and cautiously administered, this provision could encourage mutually beneficial transactions.

With regard to Canadian nonfirm energy, access for Canadian nonfirm energy under Condition 2 in return for storage rights should be approached cautiously. Granting such access under Condition 2 will have potentially widespread impacts, against which the potential benefits of a storage arrangement must be compared. If such an analysis clearly demonstrated that the benefits of obtaining such storage outweigh the potential adverse impacts, granting such access should be considered.

January 12, 1987

Dept. Of Energy
Bonneville Power Administration
Public Involvement
P.O. Box 12999
Portland, OR 97212-0999

Dear Sirs:

If I were God, this is how it would be --

It is important to establish that the Northwest will not, repeat will not, suffer by selling our power resou ce to other areas - whe ever.

How do you establish guarantees?

If the practice shows that the exporting of power by the Northwest is detrimental to the Northwest - then it shall cease!

Sincerely yours,

Edward and Marilyn Livingston
Frog Hill, K amath County

P.O. Box 67
Bly, OR 97622

P O BOX 67 BLY OREGON 97622

Your
Seattle
City Light

Randall W. Hardy, Superintendent
Charles Royer, Mayor

January 15, 1987

Donna L. Geiger
Public Involvement Manager
P.O. Box 12999-ALP
Portland, OR 97212

Dear Ms. Geiger:

Long Term Intertie Access Policy - SJ-L2

By letter of October 22, 1986 the Bonneville Power Administration (Bonneville) requested comments on the Intertie Development And Use Draft Environmental Impact Statement (IDU DEIS) and the proposed Long Term Intertie Access Policy (LTIAP). The attached report presents the views and comments of Seattle City Light (Seattle) on the proposed LTIAP and IDU EIS. These comments are in two parts: 1) general and 2) specific.

We appreciate the opportunity to provide these comments and hope that their intent will be incorporated into Bonneville's Long-Term Intertie Access Policy and Environmental Impact Statement.

Yours very truly,

Randall W. Hardy
Superintendent

RN: jm

Enclosure

ENCLOSURE

COMMENTS ON THE LTIAP AND IDU EIS

By letter of October 22, 1986 the Bonneville Power Administration (Bonneville) requested comments on the Intertie Development And Use Draft Environmental Impact Statement (IDU DEIS) and the proposed Long Term Intertie Access Policy (LTIAP). The purpose of this letter is to present the views and comments of Seattle City Light (Seattle).

We view this policy as one of the most important issues on the Bonneville agenda. This policy represents the framework within which all business relationships with Southwest utilities will be structured. A great number of utilities, both Northwest and Southwest, will rely on this document as a statement of the position of the Department of Energy and Bonneville regarding inter-utility cooperation for the long-term. Our comments are in two parts: 1) general and 2) specific. The comments are as follows.

I. General Comments on the LTIAP

We observe that Bonneville was established by Congress under the Bonneville Project Act in 1937 as the federal marketing agency for power generated at federal dams in the Pacific Northwest. In subsequent legislation (i.e., the "Regional Preference Act" of 1964, the "Transmission Act" of 1974, and the "Regional Act" of 1980) Congress further defined Bonneville's transmission authority and responsibilities. Throughout this 20-plus years of legislative history, Congress has required Bonneville to transmit non-federal power for its utility customers over federal intertie facilities. Only "substantial interference" with Bonneville's power marketing program would excuse Bonneville's refusal to transmit surplus power for its customers.

Congress' intent that Bonneville not use the Intertie solely for Bonneville's benefit can be expressed another way. Congress intended Bonneville's role to be that of a common carrier and the Pacific Intertie to be a regional resource with benefits to be shared by all Northwest utilities (16 USC§838d, 16 USC§837e). We, therefore, believe that the Pacific Intertie is a regional resource to be shared by the region's utilities with Bonneville--not for use by Bonneville only, on a Bonneville-first basis. Further, Bonneville should not use access to the Intertie as a method to achieve other goals that it might not otherwise be able to achieve.

Northwest utilities at one time had a chance to buy a portion of the Intertie. There were at least seven proposals for non-federal construction. (See Statement of Charles Luce, Pacific Northwest Power Preference: Hearing Before Committee on Interim and Insular Affairs United States Senate S 1007, April 1, 1963, p. 32.) Those that at Bonneville's suggestion chose not to buy did so because they felt they would have just as good access by dealing with Bonneville instead. Based on the LTIAP and Bonneville's attempt to restrict Intertie access for its own marketing purposes and programs, those expectations now appear to have been ill-founded.

One of the benefits from building the intertie was the economic benefits obtained in the Northwest and California from seasonal and capacity/energy exchanges. These exchanges are an excellent vehicle to reduce the need for new resources in both regions. Yet, the LTIAP does not provide assured delivery for exchanges until Bonneville is within some undefined "planning horizon of load/resource balance." This element of the policy is based solely on disadvantages of exchanges to Bonneville. Virtually no consideration was given to the benefits of exchanges for others, either in the policy, the EIS, issue papers or public discussions.

In addition, the policy as written could allow firm transactions to fill up the Intertie. It would be unfair to deny Intertie access to utilities that currently have non-firm surpluses by loading up the Intertie with firm transactions. Once Bonneville's needs are met, the policy should place an upper limit on firm transactions and reserve a certain amount of Intertie capacity for non-firm access. This would assure an equitable split between firm and non-firm access.

It appears to us the policy will not renew existing firm contracts for access and will limit new firm access to Exhibit B. This we support. Exhibit B, however, is an inappropriate method to limit access for exchanges and capacity sales. Access for exchanges and, on a second priority basis, capacity sales should be granted (a) when and up to any upgrades of the Pacific Intertie, (b) when Bonneville enters into an exchange or capacity sale, or (c) when there is available capacity on the Intertie, whichever occurs first.

Alternatively, Bonneville could ignore the problem of firm vs. non-firm access if it took the approach outlined in Appendix A to these comments. (Appendix A presents a method of allocating Assured Delivery that does not have an impact on the sale of non-firm energy.)

The LTIAP should also clearly state that Bonneville is not and will not be responsible for guaranteeing a Scheduling Utility's firm sales contracts, regardless of whether or not Bonneville is given advance notice. Scheduling Utilities should not rely on Bonneville or on the

rest of the region to provide financial support for their firm sales, and Bonneville should not have to acquire new resources to replace power that other utilities have sold out-of-region. From a legal standpoint, we believe Bonneville is prohibited from having to back up firm sales by Northwest utilities by Section 9(c) of Pub.L. 96-501.

A second benefit of regional sharing of the Pacific Intertie was to avoid unnecessary duplication of transmission facilities. However, Bonneville's attempt to restrict Intertie access will logically lead over the long-run to the construction of alternative transmission facilities to serve Southwest markets. The Inland Intertie, currently being studied, is a prime example of some Northwest utilities' desire to escape the uncertainties and high cost of Bonneville's Intertie access policies.

The Inland Intertie also gives testimony to the increasing uneasiness over Bonneville's "me-first" policy, and Bonneville's emerging self-portrayal as the region's provider and benefactor, if only we'll let Bonneville have its way first. Bonneville's short-run preoccupation with protecting or enhancing its power marketing program is coming at the expense of Northwest utilities. In the long-run, this will deprive Bonneville of the very transmission revenues it is trying to protect and have detrimental effects on the Administrator's Long Term Power Marketing Program.

II. Specific Comments on the LTIAP

Section A - Definitions

1. Section A.3.

A. Concern - Definition of "Assured Delivery" is too detailed.

B. Discussion - The definition of "Assured Delivery" includes the term "uncontrollable forces," which itself is undefined. This will create uncertainty as to what is meant. This level of detail is best left to the contract that will grant Assured Delivery.

C. Recommendation - Delete the words "as a result of uncontrollable forces of".

2. Section A.6.

A. Concern - Definition of "Existing Extraregional Resource" is too narrow.

B. Discussion - According to the Proposed LTIAP issues paper (issued via letter of October 22, 1986), Bonneville issued notice that it "...intended that the LTIAP would deny access to resources developed after September 7, 1984, that would have an adverse impact on fish and wildlife" (page 6, para. 1). In the LTIAP itself, Bonneville defines "developed after September 7, 1984," as being in operation as of that date. This poses a problem. For example, the High Ross alternative contract, which may or may not be considered an extraregional resource, was contracted for in March 1984 and operational in January 1985. If the High Ross contract were considered as an extraregional resource for the purposes of this policy, then it would fall outside the definition of Existing Extraregional Resources and would adversely impact declarations under Sections C.2., F.1. and F.2. We believe that this was not the intent of the policy and would be grossly unfair if allowed to become policy.

C. Recommendation - Amend the definition as follows "...Pacific Northwest that were under construction, operational or contracted for by September 7, 1984...."

3. Section A.7.a.

A. Concern - Definition of "Existing Pacific Northwest Resources" is too narrow.

B. Discussion - The same comment as was made in comment two applies here. For example, the Main Canal project, a hydro project in the Columbia River Basin, was committed to in May 1980, under construction in September 1984 and operational in July 1986.

Unless the definition is modified, projects such as these will be outside the definition and will have unacceptable adverse impacts on allocations for the Intertie for economy energy sales. This occurs via Section C.2. which limits allocation as follows: "The Administrator will...allocate available Intertie Capacity only for power...from...Qualified Pacific Northwest Resources...." As part of its definition, Qualified Pacific Northwest Resources relies on the definition of Existing Pacific Northwest Resources. Thus, if a resource is not an Existing Pacific Northwest Resource, it cannot be counted in the available resources package that determines the surplus above that needed to carry firm load and hence impacts declarations under Sections F.1. and F.2. Attached in Appendix "C" is resource information on new Seattle resources from which our comments stem.

C. Recommendation - Amend the definition as follows "...resources of Scheduling Utilities that were under construction, operational or under contract on September 7, 1984...."

4. Section A.10.

A. Concern - The definition of "New Hydroelectric Plant" is too broad.

B. Discussion - There are two concerns with the definition. First, the definition leaves in doubt the status of an existing resource that is modified. The modifications could include efficiency improvements such as generator rewinds, etc. We don't believe the intent of the definition is to construe these modifications as a New Hydroelectric Plant.

A second problem with the definition is that it ignores the fact that a resource must be committed to long in advance of its becoming operational. The commitment to build Main Canal was made well before Bonneville gave any indications that it would not grant access for resources "developed" after September 7, 1984, as outlined in the Proposed LTIAP issues paper. Again, we believe it is not the intent of the policy to limit such resources from access to the Intertie and would be unfair to do so. See Exhibit C.

C. Recommendation - To solve the first problem, amend the definition to read "...means any new non-federal...."

To solve the second problem, amend the definition as follows "...Columbia River Basin that was under construction, operational, or under contract after September 7, 1984."

The definition would then read - "New Hydroelectric Plant" means any new non-federal hydroelectric power producing facility within the Columbia River Basin that was under construction, operational, or under contract after September 7, 1984.

5. Section A.

A. Concern - There is no definition of "Declarations."

B. Discussion - Utility declarations are an important part of Section F. in determining access for economy energy. Exactly what can be included in the declarations has in the past been confusing, and has led to self-serving interpretations. This policy has the potential to make it even more confusing and continue the existing problems. To limit future arguments, misunderstandings, and liberal interpretations, a definition of Declarations should be included in the definitions section.

C. Recommendation - Include something similar to the following definition in Section A: "Declarations" means the surplus energy and hourly capacity a utility wishes to sell via the Pacific Intertie limited to the summation of its available Qualified Pacific Northwest Resources minus its Firm Load after adjustments for any firm

Bonneville entitlements under the Power Sales Contract (Firm Load minus Bonneville entitlement). For the purpose of this calculation, Qualified Pacific Northwest Resources that may be considered will be limited to:

1. all hydro resources within the definition of a Qualified Pacific Northwest Resource, and

2. for Conditions 1 and 2, all other resources within the definition of a Qualified Pacific Northwest Resource, with an incremental cost of less than 1.5 times the average price of all economy energy sales, including start up costs, that took place the scheduling period prior to the current scheduling period.

6. Section A.14.

A. Concern - The definition of "Qualified Pacific Northwest Resources" does not cover new resources that are brought on to serve new load.

B. Discussion - The Bonneville Power Sales Contract Section 5(b) states "...the Purchaser therefore agrees that it will use its best efforts either to serve its load growth using Firm Resources, or to make available for acquisition by Bonneville, ...resources equivalent to the load growth of the Purchaser which is served hereunder...."

This indicates to Seattle that a utility purchasing power under this contract is responsible to develop sufficient resources to cover its load growth. Yet, the policy via the definition of a "Qualified Pacific Northwest Resources" will allow only (for the purposes of establishing declarations):

1. "Existing Pacific Northwest Resources";

2. New regional resources to support existing downline sales, and;

3. New resources developed and dedicated to serve the utilities load or for export only after the Intertie is uprated to 7900 MW, which may never happen.

This condition occurs because Section C.2. indicates that "...the Administrator...will allocate available Intertie Capacity only for...Qualified Pacific Northwest Resources...."

Utilities constructing new resources to serve their Pacific Northwest loads in response to the directions given in the Power Sales Contract should not have their declaration negatively impacted. This would be unfair.

However, the resource package that goes to make up the resource stack that will determine a Firm Resource surplus (Firm Resources - Firm Load) for the purposes of Exhibit B should be limited to "Existing Pacific Northwest Resources." New resources being built solely for export, including new "Extraregional Resources," should have to await the further increases of the Pacific Intertie to 7900 MW. To do otherwise will negatively impact non-firm sales by displacing their access to the Pacific Intertie. This displacement will impact Bonneville's revenue as well as other non-federal utilities' revenues that they have been dependent on for years coming from "Existing Pacific Northwest Resources." It would be unfair for a utility to build a new resource under current surplus conditions and market that resource to the Southwest with the result that its ratepayers benefit while the ratepayers of other Scheduling Utilities suffer rate increases as a result.

C. Recommendation - Renumber the existing Section A.14.b. to A.14.c. and modify A.14.b. to:

New Section A.14.b.: b. New regional resources of Scheduling Utilities for regional loads; and

c. New regional resources of Scheduling Utilities for export: (1) the same; (2) the same.

7. Section A.11.

A. Concern - The term "Pacific Intertie" is not used consistently throughout the text of the LTIAP.

B. Discussion - The only intertie that should be covered by the LTIAP is the Pacific Northwest-Pacific Southwest Intertie. However, there are other interties (e.g., Northern and Eastern Interties) and others that may someday be constructed. This raises the question as to whether the LTIAP might be construed to cover other interties as well.

C. Recommendation - Use the defined terms "Pacific Intertie" or "Intertie Capacity" throughout the text to avoid any confusion or misunderstanding. Avoid use of the unmodified word "intertie."

8. Section A.15.

A. Concern - The definition of Resources does not include long-term contracts as a firm resource of a utility.

B. Discussion - A number of Scheduling Utilities have within their Resource packages both electric generating plants and

long-term contracts. The contract is just as much a Resource as if the utility owned it. Therefore those contracts should be included as a Resource just as they are in the Firm Resources Exhibit of the Firm Power Sales Contract.

C. Recommendation - In the definition of "Resource," insert the words "and/or firm contracts" after the words "electric generating plants."

9. Section A.18.

A. Concern - The term "Substantial adverse impact" is not used consistently throughout the text of the LTIAP.

B. Discussion - The crux here is the frequent omission of the word "substantial" in the text of the LTIAP where the words "adverse impact" are used. This causes confusion as to whether Bonneville is trying to distinguish between "adverse impact" and "substantial adverse impact".

C. Recommendations - Use the defined term throughout the text.

Section C

10. Section C.3.c.2

A. Concern - The language in this section is too broad.

B. Discussion - The intent of subsection C.3.c.2. is to deny Intertie access to Qualified Pacific Northwest Resources, including New Hydroelectric Plants, that operate in a manner that will have a substantial adverse impact on fish or wildlife resources within the Columbia River Basin. However, this subsection, in conjunction with I.3.b. and I.3.d. would force Bonneville to deny Intertie access for a resource that is not in compliance with any State of Federal law. Further, Bonneville is setting itself up as a regulatory body for any type of violation. Accordingly, Bonneville could find itself forced to deny Intertie access for irregularities such as a turbine being too noisy.

C. Recommendation - Section C.3.c.2. should be narrowed to focus only on fish and wildlife impacts, and should be revised to read, "...the operation of Qualified Pacific Northwest Resources including New Hydroelectric Plants in a manner that will have substantial adverse impact on fish or wildlife resources within the Columbia River Basin."

11. Sections C.4. and C.5.

A. Concern - Defined terms should be placed in the Definitions Section.

B. Discussion - Section C.4. defines the term "Operating limitations of the Federal system," and Section C.5. defines the term "Tbe Administrator's existing contractual obligations." Both appear out of place.

C. Recommendation - Make Sections C.4. and C.5. defined terms and put them in Section A, Definitions.

12. Section C.6.

A. Concern - That Bonneville will be persuaded to change the concept of using owned transmission first.

B. Discussion - Section C.6. indicates that owned access on any non-Bonneville transmission facility is to be used before Bonneville will grant access to the federally owned Intertie to the Southwest. We support the concept. As we discussed in our general comments, Northwest utilities at one time had a chance to buy a portion of the Pacific Intertie. Those that chose private ownership instead of dealing with Bonneville were essentially given their allocation on the Intertie when they bought it and consequently have a better opportunity to wheel than those that did not buy in. In fact, the size of non-federal ownership far exceeds what the owner utilities would have if ownership had been sold on a pro rata basis or allocated according to today's procedures. Bonneville is therefore justified in requiring non-federally owned portions of the Pacific Intertie to be used before granting access to the federally owned portion. To do otherwise would twice advantage the owner utilities and present unfair competition to the other users.

C. Recommendation - Do not change the concept of Section C.6.

Section D

13. Section D.1.

A. Concern - It is not clear that there are limits placed on Bonneville's Intertie access for transmitting its own surplus firm power.

B. Discussion - Surplus firm is an energy number that could be spread out over several months or concentrated in one month. Bonneville could conceivably tie up 100 percent of Intertie Capacity by how it shapes its firm surplus.

C. Recommendation - The section should include the reference, "in accordance with the provisions of Exhibit B..." so that a number can be attached to how much Intertie Capacity Bonneville would reserve.

Section E

14. Section E.2.

A. Concern - None. We support this method for providing Assured Delivery for firm power contracts.

B. Discussion - Section E.2. covers Assured Delivery for firm power contracts. We find several things in this Section we support and want to acknowledge them. First, Assured Delivery is limited, as it should be, to the Scheduling Utility's average firm energy surplus as shown in Exhibit B. Second, Assured Delivery requires that certain parameters of the sale be clearly specified to ensure that the contract is not being misused as an advance arrangement to sell non-firm power. Bonneville thus has taken positive steps to avoid what can be a significant problem. Finally, Section E.2. does not automatically renew access for Scheduling Utilities' contracts listed in Exhibit C if renewal of these contracts is requested. To do otherwise would conflict with restrictions for Intertie access found in other parts of the LTIAP. Access for these contracts, if they are renewed, should be restricted to the level of Exhibit B.

C. Recommendation - Except for the fairly minor revision we are proposing in the next comment, Section E.2. should remain unchanged.

15. Section E.2.b.2.

A. Concern - Bonneville has stated that it is proposing to add language to this section to the effect that a firm power sale could have a load factor from 0 percent to 100 percent.

B. Discussion - The effect of the proposed added language is to make the amount of energy involved in the sale irrelevant. However, at 0 percent load factor, the sale is all capacity, and energy is therefore being returned to the region. We doubt that this is what Bonneville intends.

C. Recommendation - Establish in the policy a lower bound for the load factor. For example, a load factor of 6 percent could be used [e.g., 6 heavy load hour sale, 6 days a week (Monday-Saturday) for the months of July, August, and September (approximately 80 days of sale) calculates out to (6 hours/day x 80 days / 8760 hours) x 100 = 5.5% L.F.].

16. Section E.3.

A. Concern No. 1 - A capacity sale is permitted Intertie access and an exchange is not.

B. Discussion No. 1 - This section allows for access to the Intertie for capacity sales and access is being denied for exchanges. We see little difference between a capacity sale and an exchange. Both types of transactions return energy back to the region. A capacity sale has by definition no energy associated with it and thus any energy delivered with the capacity must be returned. In fact, from a planning standpoint, a capacity sale is less desirable than a seasonal exchange because the energy is returned on the light load hours usually on the same day as the capacity is delivered. This return delivery will usually aggravate an already difficult light load hour problem due to non-power constraints (e.g., minimum flow requirements, thermal plants that cannot be turned off at night, etc.). With an exchange, the energy can be returned at some future time and not necessarily on light load hours.

C. Recommendation No. 1 - A capacity sale has the potential to create greater light load hour problems than an exchange and should be given lower priority on the Intertie. At a minimum, capacity sales and exchanges should receive equal priority for Intertie access. See Item 18 for further discussions and detailed recommendations.

17. Section E.3.

A. Concern No. 2 - Bonneville has stated that it is proposing to delete Section E.3.

B. Discussion No. 2 - The LTIAP should include a policy for assured delivery for capacity contracts. It is our understanding that Bonneville proposed to remove the section because the language was causing confusion over what constituted a capacity sale. Finding suitable language may be an arduous task, but it is better than ignoring capacity sales altogether. Capacity contracts (and exchanges) should be structured so that they do not become a vehicle for selling non-firm energy.

C. Recommendation No. 2 - Leave Section E.3. in the LTIAP and consider treating capacity sales as second priority to exchanges. See Item 18 for further discussion and recommendations on this subject.

18. Sections E.3. and E.4.

A. Concern No. 3 - Capacity sales and exchanges are not appropriately limited by Exhibit B.

B. Discussion No. 3 - The language in Section E.3. indicates that Assured Delivery for a capacity sale will be limited to the Scheduling Utility's average firm energy surplus as shown in Exhibit B. A utility can show zero energy surplus in Exhibit B and still be able to make a capacity sale because by definition all the energy associated with the capacity is returned. In other words, the numbers shown in Exhibit B are not a useful guide for dealing with capacity sales.

C. Recommendation No. 3 - We feel that Intertie access for capacity sales ought to be tied to and conditional upon upgrades of the Pacific Intertie. Moreover, the same should be the case with exchanges and new resources. Once the Intertie is upgraded (e.g., the DC Terminal Expansion Project), space on the upgraded Intertie should be allocated on a pro rata, first come-first served basis. Priorities for space should be given first to exchanges, second to capacity sales, and third to new resources. None of these should be used as a vehicle for selling non-firm energy, which can be adequately taken care of on the existing (5300 Mw) Intertie. Our only exception to these recommendations would be if Bonneville finds unused space on the existing Intertie after firm and non-firm sales have been accommodated, and that the unused space could be used for exchanges (first) and capacity sales (second) rather than waste the unused space.

19. Section E.4.

A. Concern No. 1 - Capacity/energy and seasonal exchange contracts should not be denied Intertie access.

B. Discussion No. 1 - One of the benefits from building the Pacific Intertie was the economic benefits obtained in the Northwest and California from seasonal and capacity/energy exchanges. These exchanges are an excellent vehicle to reduce the need for new resources in both regions. Yet, the LTIAP does not provide assured delivery for exchanges based solely on disadvantages of exchanges to Bonneville. This raises two concerns. First the Intertie was built to benefit the entire Pacific Northwest region, not just Bonneville. Second, Bonneville must become more far-sighted and look beyond the region's current power situation in developing an Intertie access policy that justifies being called long-term. While Bonneville's aversion to exchanges may have some validity in the short term, long-term load/resource flexibility must be evaluated in addition to short-term revenue considerations. In addition to delaying resource construction, exchanges should benefit fish and wildlife to the extent reservoirs are not taxed as heavily during the winter months when energy would be returned to the region.

In order to allow exchanges to go forward on a planning basis and achieve the benefits outlined above, some level of certainty is needed as to when exchange contracts will be allowed Assured Delivery

to the Intertie. The policy as now written does not give us any certainty and this will not allow exchange contracts to be considered.

C. Recommendation No. 1 - Specify a date in the policy when exchanges will be given access (e.g., when Intertie upgrades occur, or when Bonneville determines there is unused space on the existing Intertie).

20. Section E.4.

A. Concern No. 2 - Scheduling Utilities should receive the same access to the Pacific Intertie as Bonneville receives for capacity sales and seasonal exchanges.

B. Discussion No. 2 - The provisions precluding exchanges for Scheduling Utilities should also apply to Bonneville. In the previous comment, we urged Bonneville to write into the policy a date certain when exchanges would be granted Intertie access. Alternatively, if Bonneville signs an exchange contract with a Southwest entity, then that should be a signal that the door is open for Scheduling Utilities to do likewise. In other words, what's good for Bonneville is good for the region.

C. Recommendation No. 2 - Revise E.4. to state (in addition to the recommendations in Item 19) that Assured Delivery will be granted when Bonneville enters into exchanges or capacity sales.

21. Section E.6.

A. Concern - Section E.6. involving 9(i)(3) Resources is too broad.

B. Discussion - Seattle supports the manner in which Bonneville proposes to provide assured delivery for a Section 9(i)(3) Priority Resource. Section E.6. of the proposed policy must be, and is, consistent with Bonneville's (BPA's) March 7, 1986 Legal Interpretation of Section 9(i)(3) of the Regional Power Act to the extent that Bonneville will provide Assured Delivery for the regional share of a 9(i)(3) resource. Bonneville's interpretation is supported by House Report 96-976 dated September 16, 1980 on page 56 which states,"...This subsection [9(i)] essentially ratifies BPA's existing policies on services, except that paragraph (3) creates a limited and contingent priority on BPA's available services for marketing of power from projects currently under construction in the region (emphasis added) should BPA decline to acquire these resources." By providing Assured Delivery to Scheduling Utilities only, the proposed policy is consistent with the Congressional intent that, "Section 9(i) sets forth additional services BPA is to provide its customers (emphasis added)...." (House Report 96-976, September 16, 1980, page 56.)

C. Recommendation - Bonneville should maintain its position. Also, in order to provide added consistency with the language of Section 9(i)(3), Seattle suggests adding the following sentence to the end of Section E.6. "The Administrator shall grant such Assured Delivery to the extent practicable unless, in the Administrator's determination, such services cannot be furnished without substantial interference with the Administrator's power marketing program."

22. Section E.7.a.

A. Concern - Bonneville's obligation to serve Pacific Northwest load will not be affected by exchange contracts.

B. Discussion - Reference is made in Section E.7.a to Section E.4. We recognize Bonneville's intent that granting Assured Delivery for firm power and capacity contracts not decrease Bonneville's ability to serve Pacific Northwest load. However, we are at a loss to understand how capacity/energy or seasonal exchange contracts, which result in capacity and/or energy being returned to the Pacific Northwest would decrease this ability.

C. Recommendation - We recommend that exchanges or reference to Section E.4. be deleted from E.7.a.

23. Sections E.7.a.1. and E.7.a.2.

A. Concern - Bonneville is prohibited from having to back up firm sales by Northwest utilities by Section 9(c) of Pub.L. 96-501.

B. Discussion - Under the terms of the LTIAP, Bonneville is proposing to grant Assured Delivery to firm sales contracts. In addition to that, Bonneville should not have to assume any obligation to guarantee the contracts, regardless of whether or not Bonneville is given advance notice. In a deficit situation, the extent to which Bonneville would have to acquire new resources to meet these contract obligations could result in an increase in the PF rate schedule. Scheduling Utilities should not rely on the rest of the region to provide financial support for their firm sales and Bonneville should not have to acquire resources to replace power that other utilities have sold out-of-region.

C. Recommendation No. 1 - Bonneville should clearly state in the LTIAP that it will not be responsible for guaranteeing a Scheduling Utility's contractual commitments. Sections E.7.a.1. and E.7.a.2. should be revised to state that what was formerly optional (a waiver of Scheduling Utilities' rights to replacement Bonneville power) is now required as a condition of access for firm power transactions. Revise Sections E.7.a.1. and E.7.a.2. as follows:

(1) the Scheduling Utility waives any right, contractual or otherwise, to purchase from Bonneville requirements to meet the Scheduling Utility's deficit up to the cumulative amount of Assured Delivery that is granted; and

(2) the Scheduling Utility agrees that its increased requirements on Bonneville...."

Recommendation No. 2 - Also, the sentence beginning "Sales by Scheduling Utilities..." should be numbered. Correcting that minor problem, we further recommend that the sentence be revised to read, "Sales by Scheduling Utilities of Pacific Northwest resources will be subject to Section 3(d) of Pub. L. 88-522, and Sections 9(c) and 9(d) of Pub. L. 96-501."

Section F

24. Section F.1.

A. Concern - The last sentence in F.1. gives Bonneville preemption rights that are too broad.

B. Discussion - Section F.1. proposes to give Bonneville the right to preempt formula allocation in order to protect fish and wildlife. Bonneville has indicated this preemption refers only to the unloaded portion of the Intertie, but the policy does not state this.

C. Recommendation - Narrow the focus to preempt only the unloaded portion of the Intertie. Make the last sentence of Section F.1. a separate paragraph (F.3.) to read, "Bonneville reserves the right to preempt the unused portion of this allocation, in part or in whole...Columbia River Basin."

25. Section F.2.a.2.

A. Concern - Bonneville should eliminate the hydro allocation limit concept for Condition 1.

B. Discussion - Bonneville via this part of the policy is indicating that under Condition 1, when Bonneville is in or near spill (and so will be many other non-federal utilities) that an individual utility's allocation will be limited to its hydro allocation. Bonneville will not be limited the same way. We do not support this concept.

First of all, and as we have indicated throughout these comments, the Pacific Intertie is a regional resource with benefits to be shared by all Northwest utilities. Bonneville is already taking care of its firm surplus first in the granting of Assured Delivery. Limiting

Scheduling Utilities' allocation under Condition 1, and not Bonneville's, strikes us as overkill. Secondly, Bonneville could accomplish the same objective, namely enchancing its revenue from economy energy sales, via timely and astute marketing practices. Limiting Intertie access for Scheduling Utilities reduces Bonneville's incentive to perform in this manner. Our attached Appendix B presents a numerical analysis that demonstrates how Seattle (as well as others) is impacted when the hydro limitation is applied. When Bonneville proposed the hydro limit, we believe that Bonneville was targeting thermal resources and intended to disallow sales down line of thermally generated energy in Condition 1. As the numbers in Exhibit B indicate this limit does not accomplish that objective.

C. Recommendation - Delete everything in F.2.a.2. after the words, "...available Intertie Capacity."

Section H

26. Section H.1.

A. Concern - Canadian access should be evaluated based on its impact on the region, not just on Bonneville.

B. Discussion - Canadian access impinges on non-federal users of the Pacific Intertie. Therefore, the benefits to giving Canada access should be for the Pacific Northwest, not just Bonneville.

C. Recommendation - Modify the first sentence of H.1. to read, "...no substantial interference with Bonneville's Power Marketing Program or substantial adverse impact on Pacific Northwest non-federal users of the Pacific Intertie."

Section I

27. Section I.3.b. and I.3.d.

A. Concern - These Sections do not limit compliance with the LTIAP to fish and wildlife impacts, as they should.

B. Discussion - Section I.3. starts out, "Procedures for review of compliance and remedies relating to Fish and Wildlife Resources...." However, Section I.3.b. does not specifically restrict a challenge of compliance to fish and wildlife impacts, nor does Section I.3.d. specifically restrict a determination of compliance to fish and wildlife impacts. We do not believe that is what Bonneville intended.

C. Recommendation - Revise I.3.b. as follows, "Any interested person who wishes to challenge the presumption that a Qualified Pacific Northwest Resource or Qualified Extraregional Resource is being operated in a manner that will not have a substantial adverse impact on fish or wildlife resources consistent...."

Also, revise I.3.d. as follows, "Upon receipt of a determination by the relevant agency, under subsection I.3.b. above, that a hydroelectric resource is not in compliance with applicable licenses or permits or other applicable State of Federal Law, as they specifically relate to fish or wildlife impacts, the ...."

28. Section I.3.f.2.

A. Concern - Overly harsh penalty for adverse impacts on fish or wildlife.

B. Discussion - These sections indicate that for New Hydroelectric Plants that are determined to have a substantial adverse impact on the fish and wildlife within the Columbia River Basin, a utility's allocation is going to be decremented by the amount of the capacity of the New Hydroelectric Plant. In times of spill, when allocations are a low percentage of the declaration, decrementing the allocation could amount to exclusion from the Intertie and sales to the Southwest. Further, a utility could be put in this position through no fault of its own, having built the resource and met all the conditions that were determined necessary at the time the plant was built. Further, to deny access to a utility that depends on the Intertie for part of its revenue from sales of economy energy, as this policy now does, could prevent it from modifying existing plants (depending on the outcome of the definition of "New Hydroelectric Plant") that could benefit the fish and wildlife. Also, the development of the New Hydroelectric Plant may in the overall view of new power plant development be the thing to do from an environmental point of view, but will not be done because of the potential impacts on the utility.

Other alternatives that Bonneville should consider for a penalty that would get attention and not be overly harsh are: (1) decrement the declaration. This would result in very little impact on down line sales and thus may not be acceptable; or (2) decrement the allocation by the ratio of the capacity of the New Hydroelectric Plant to that of the declaration. This would result in a loss of Intertie access and have impacts on sales that would get attention without being so harsh.

C. Recommendation - Change the decremental provision from one of a straight capacity reduction of the allocation to one of a reduction of the allocation by ratio of the New Hydroelectric Plant capacity to the declaration.

29. Exhibit B

A. Concern - No mention is made of what data to use to calculate Exhibit B.

B. Discussion - Exhibit B of the policy will show a utility's average firm energy surplus. This figure can be calculated using a variety of data including PNUCC data, Bonneville data or Coordination Agreement Submittals. Exhibit B in the NTIAP used PNUCC data.

C. Recommendation - We support the use of PNUCC load resource data or similarly comparable data (adjusted as required) to calculate Exhibit B of the policy. We also recommend that Bonneville verify the accuracy of the numbers by the means affording the greatest reliability.

30. Exhibit C

A. Concern - No energy or capacity figures are shown for the contracts listed in Exhibit C.

B. Discussion - It is impossible to evaluate the impact existing utility contracts will have on Pacific Intertie access without knowing how many megawatts their contracts account for.

C. Recommendation - Revise Exhibit C to show the megawatts associated with each contract listed in Exhibit C.

III. General Comments on the IDU DEIS

Seattle has reviewed the Intertie Development and Use Draft Environmental Impact Statement (IDU DEIS), and in general we are impressed with the breadth and depth of the analysis of the environmental consequences of various Intertie expansion alternatives. In particular, a large amount of information has been presented in a very accessible and understandable format in this Environmental Impact Statement (EIS). In our review we have noted several areas which could be improved through reorganization, additional discussion, or the inclusion of further information. These areas are discussed below.

IV. Specific Comments on the IDU DEIS

1. Section 2. - Alternatives, Including The Proposed Actions

A. Concern - The potential for non-Bonneville ownership of the expanded Intertie needs further analysis.

B. Discussion - A topic of great interest to many Northwest utilities is the potential for some non-Bonneville ownership of the expanded Intertie. Previously, Bonneville has discussed the possibility of allowing--through subscription--the acquisition of as many as 800 Mw of capacity on the third AC line. However, only in a small paragraph on page 2 - 3 is there any discussion of this issue, and consideration is deferred to a later (undefined) process.

C. Recommendation - The EIS should analyze the benefits and costs, risks and impacts of a scenario(s) in which there is some non-Bonneville ownership of an expanded Intertie.

2. Section 4. - Environmental Consequences

A. Concern - Mitigation measures are obscured in the IDU DEIS.

B. Discussion - The discussion of mitigation and of possible mitigation measures is buried in the text. They should be given more prominence. It is also unclear whether any of these measures would affect the economic viability of any Intertie alternative.

C. Recommendation - Mitigation measures for various environmental impacts should be discussed more prominently and should be referenced in the table of contents for convenient accessibility. The effects of implementing various mitigation measures on the viability of Intertie alternatives should be evaluated.

3. Section 4.2. - Power System Effects

A. Concern - The impacts of Intertie development and use on conservation in the Pacific Northwest needs improvement.

B. Discussion - The energy conservation resource is featured prominently in the Northwest Power Act and Regional Plan. Moreover, the future development and marketing of this resource is of great interest to Scheduling Utilities, the Council, and the public. Given this interest, we feel that the analysis of the effects of Intertie development alternatives and access alternatives on the development and marketing of conservation could be improved.

C. Recommendation - A more comprehensive discussion should be prepared, in which some of the widely separated discussions in the EIS would be placed, and in which the discussion would be expanded to more fully consider how conservation might be affected by the development of various Intertie expansion and access alteratives.

4. Section 4.5. and 4.6. - Fish and Wildlife

A. Concern - It is not clear how significance levels were determined.

B. Discussion - The discussion of fish and wildlife impacts could be improved by including more information to address how significance levels were determined.

C. Recommendation - The EIS should include additional information on the development of significance levels, and should describe the analyses that were conducted to investigate the sensitivity of important parameters to alterations in assumptions or expectations of environmental response.

5. Section 4.8. - Economic Effects

A. Concern - The analysis in Section 4.8. is incomplete.

B. Discussion - It is our understanding that the $472 million in net benefits for the combined expansion (Table 4.8.2.) assumes and includes 3,150 Mw of firm sales, structured much like the proposed sale to Southern California Edison and with a similar price of 37 mills plus an escalator. Such assumptions should be spelled out in the analysis. Moreover, if this is indeed an assumption that Bonneville is making, it seems reasonable that a level of long-term sales should exist below which the completion of both Intertie expansions would not be economically feasible.

C. Recommendation - The final EIS should identify whether or not a certain level of firm sales is required for completion of the combined expansion alternative, and should examine an array of sale structures. In other words, show the crossover point between economic and non-economic expansion with respect to firm sales. A similar problem is seen for the oil and gas price forecast section. The assumptions used in estimating the value of the Intertie expansions should be explicitly spelled out in the EIS.

This concludes our comments.

APPENDIX A

The attached is a recommendation to replace subsections E.2., E.3., and E.4., of Section E. dealing with Assured Delivery and all of Section F. which deals with formula allocations.

The advantages of this proposal over that presented in the proposed Intertie Access Policy are:

1. Assured Delivery can be granted by Bonneville for firm sales and not impact non-firm sales that other utilities have made. The question of firm vs.non-firm use of the available Intertie Capacity is put to rest.

2. Bonneville would not have to be (economically) concerned about what type of deal a non-federal utility was making (capacity sales, capacity/energy or seasonal exchange) in that its secondary sales are protected.

3. The desire to move non-firm under the guise of a firm contract would be diminished and thus relieve some of Bonneville policing of the policy. It becomes self policing to a greater extent.

APDX.A

ALTERNATIVE PROPOSAL FOR
"Assured Delivery for Intertie Access"

E. Assured Delivery for Intertie Access

1. Assured Delivery for Firm Power Contracts of Scheduling Utilities

Bonneville will provide Assured Delivery appropriate for the firm power delivery requirements of qualifying Regional Utilities' contracts. It is Bonneville's intention to make 60 percent of the excess of Intertie Capacity above the amount determined in Section D, as adjusted for existing firm power contracts of Scheduling Utilities and for schedules in the direction opposite of that which may require allocation, as described in Section F below.

a. Regional Utility requesting Assured Delivery for a contract must submit a copy of the proposed contract to the Administrator. The Administrator will review the contract and will, in a timely manner, inform the Regional Utility (1) of the amount of Assured Delivery which will be provided and (2) of the terms and conditions which will apply to transactions under the contract. Assured Delivery for a contract will not be denied except if:

(1) There is not sufficient Intertie Capacity remaining for Assured Delivery under the proposed contract,

(2) The transaction provided by the contract are determined not to be firm transaction. A transaction will be considered firm if the contract provides that the receiving party of any delivery there under must "take or pay" for the described deliveries in the contract.

(3) The proposed contract provides for a term longer than twenty years.

(4) The Scheduling Utility firm sale has exceeded its firm surplus as shown in Exhibit B.

b. Assured Delivery will be provided only to the extent that such contracts do not conflict with the conditions of Section C.

F. Formula Allocation Methods

1. Bonneville will determine the Intertie Capacity available for formula allocation described in subsection F.2., below after first taking into account the conditions for Pacific Intertie access specified in Section C., above; the Intertie Capacity necessary to serve to fulfill new Bonneville contractual obligations; and the Intertie Capacity reserved for Bonneville's Firm Surplus Power. Access to the remaining available Intertie Capacity will be allocated according to the formulas described below.

2. One of three formulae will be used to allocate the available Intertie Capacity depending on which of these following three conditions exists:

a. Condition 1: When Exportable Energy is being scheduled pursuant to the terms of the Exportable Agreement (Bonneville Contract No. 14-03-73155), Intertie Capacity will be allocated pursuant to the Exportable Agreement. An example of an allocation under Condition 1 is shown in Exhibit A. The allocation procedure of the Exportable Agreement is an existing contractual obligation and has not been changed as a result of policy. Upon expiration of the Exportable Agreement on December 31, 1988, Condition 1 will be in effect when the Federal system is in spill or in likelihood of spill, as determined by Bonneville. Access to the Intertie Capacity will be allocated to Bonneville, for the purpose of transmitting Federal energy available for sale outside the region, and to Scheduling Utilities granted Assured Delivery and/or declaring surplus energy. After expiration of the Exportable Agreement, at those times when Condition 1 is in effect the capacity will be allocated pursuant to the following procedure. An example of an allocation under Condition 1 after the Exportable Agreement has expired is shown in Exhibit A.

(1) On any day the Scheduling Utilities observe as a normal workday, each Scheduling Utility shall submit daily to Bonneville Declarations of hourly quantities of Assured Delivery and surplus energy and/or capacity it has available for export sale for the period normally beginning at midnight of the day of the Declaration and continuing through midnight of the next normal workday.

(2) Bonneville's and the Scheduling Utilities' allocations for each hour will approximate the ratio of each Declaration to the sum of all Declarations for each hour multiplied by the available Intertie Capacity.

(3) A permissible allocation will be determined for Bonneville and other Scheduling Utilities which will be the ratio of each hour multiplied by available Intertie Capacity adjusted for Assured Deliveries. For each Scheduling Utility whose permissible allocation is less than its Assured Delivery, its allocation will be increased to equal its Assured Delivery. The sum of the increased allocations will be reflected in, pro rata, reductions in Bonneville's and the other Scheduling Utilities' allocation whose permissible allocation exceeds their Assured Deliveries.

(4) To the extent that Bonneville's and/or other Scheduling Utilities's allocation is reduced by virtue of other Scheduling Utilities Assured Deliveries, and to the extent that such Bonneville and/or other Scheduling Utilities were

able to dispose of 90 percent or more of its permissible allocation over the Pacific Intertie, then Bonneville and/or the other Scheduling Utilities may sell energy up to the amount of the reduction in allocation to the Scheduling Utilities whose Assured Delivery exceeds its permissible allocation.

(5) The price of the energy in (4), above, will be the average price, at the source, of the energy which the selling Scheduling Utility was actually able to sell on its portion of Intertie Capacity.

b. Condition 2: When Condition 1 is not in effect, but Bonneville and Scheduling Utilities declare amounts of power available for access to the Pacific Intertie that exceed the available Intertie Capacity, as determined in subsection F.1., above, the capacity will be allocated pursuant to the following procedure.

(1) On any day the Scheduling Utilities observe as a normal workday, each Scheduling Utility shall submit to Bonneville Declarations of hourly quantities of Assured Delivery and surplus energy and/or capacity it has available for export sale for the period normally beginning at midnight of the day of the Declaration and continuing through midnight of the next normal workday.

(2) Bonneville's and the Scheduling Utilities' allocations for each hour will approximate the ratio of each Declaration to the sum of all Declarations for each hour multiplied by the available Intertie Capacity.

(3) A permissible allocation will be determined for Bonneville and other regional utilities which will be the ratio of each Declaration to the sum of all Declarations for each hour multiplied by available Intertie Capacity adjusted for Assured Deliveries. For each Regional Utility whose permissible allocation is less than its Assured Delivery, its allocation will be increased to equal its Assured Delivery. The sum of the increased allocations will be reflected in, pro rata, reductions in Bonneville's and the other Regional Utilities' allocation whose permissible allocation exceeds their Assured Deliveries.

(4) To the extent that Bonneville's and/or other Scheduling Utilities allocation is reduced by virtue of other Scheduling Utilities Assured Deliveries, and to the extent that such Bonneville and/or other Scheduling Utilities may sell energy up to the amount of the reduction in allocation to the Scheduling Utilities whose Assured Delivery exceeds its permissible allocation.

(5) The price of the energy in (4), above, will be the average price, at the source, of the energy which the selling Scheduling Utility was actually able to sell on its allocated portion of the Intertie Capacity.

c. Condition 3: When Condition 1 is not in effect, and when Bonneville and Scheduling Utilities declare power available for access to the Pacific Intertie in an amount that does not exceed the available Intertie Capacity, Bonneville's and each Scheduling Utility's allocation will be equal to their Declarations. An example of an allocation under Condition 3 is shown in Exhibit A.

d. The allocation accorded each Scheduling Utility under subsections a., b., and c., above, will be decremented by one minus the ratio of the capacity of the New Hydroelectric Plant to the Declaration for New Hydroelectric Plants that the Administrator has determined pursuant to subsection I.3., below, has a substantial adverse impact on fish or wildlife resources within the Columbia River Basin.

3. Bonneville reserves the right to preempt an unused allocation, in part or whole, should Bonneville require additional Intertie Capacity in order to take actions to protect fish and wildlife resources within the Columbia River Basin, due to operational problems.

APDX.A1

APPENDIX B

The attached is an analysis of formula allocation for non-firm energy as found in Section F.2.a.2. of LTIAP. We stated in Item 25 that we do not support the hydro limit that Bonneville is placing on Scheduling Utilities under Condition 1. As this analysis demonstrates, Seattle--as well as other public utilities--is substantially worse off in terms of Intertie allocation when the limit is imposed. Utilities that currently own a portion of the Pacific Intertie, or that are mainly thermal based, are substantially better off. We seriously question whether Bonneville intended to redistribute access for non-firm sales to the Southwest in such a drastically unfair manner.

The calculations used to derive the values in the following three tables can be illustrated by referring to the first table (labeled "May Capacity") and tracking the numbers for Seattle.

(a) 5.71% = 1,821.1 / 31,904.0;

(b) 5.25% = (1,821.1 + 131.4 + 142.5) / (31,904.0 + 5,203.9 + 2,802.9)

(c) 5.55% = (1,821.1 + 131.4 + 142.5 - 291) / (31,904.0 + 5,203.9 + 2,802.9 - 7,380)

(d) 114 = (5.71% x 2,000); 2,000 = 2,000 Mw of assumed available Intertie for allocation

(e) 105 = (5.25%) x 2,000

(f) 111 = (5.55%) x 2,000

(g) 865.3 = (1,821.1 + 131.4 + 142.5 - 291) - (938.7); this was the method used to arrive at what a declaration might be. Pacific and Portland were set to zero because they own a portion of the Intertie.

(h) 176 = (865.3 / 9,848) x 2,000 = Seattle's pro rata share of the available Intertie.

In other words, without the hydro limit, Seattle's pro rata share would be 176 Mw. With the hydro limit, Seattle's share would be 114 Mw, a loss of 62 Mw. The investor owned utilities do not suffer such a loss (i.e., Puget's 106 normal allocation vs. 113 hydro limit).

A final column could be added to the table listing the smaller of two values: the value in the "alloc" column vs. the value in the "hydro" column under Condition 1 limit. The sum of the final column, omitting Bonneville's allocation (since Bonneville is exempt from the limit), is 511 Mw. The 511 Mw figure represents the sum of Scheduling Utilities' allocation after the limit is imposed. Subtracting 511 Mw from 2,000 Mw leaves 1,489 Mw for Bonneville's access, up from 1,284 Mw. That is, Bonneville realizes a 205 Mw or 16% increase in non-firm access due to the allocation method prescribed in Section F.2.a.2. Almost one third of the increase is coming at Seattle's expense. This is why Seattle opposes the limit.

SUMMARY OF CALCULATIONS FOR "PROPOSED ALLOCATIONS"

Column #1 Input

Column #2 Input

Column #3 Input

Column #4 Equals sum of Columns 2 & 3

Column #5 Equals Capacity to be allocated * $\left[\frac{\text{Column \#4}}{\text{Sum of Column \#4}}\right]$

Column #6 Input

Column #7 Equals $\frac{\text{(Total MW to be allocated-Firm Sales) * Utility Declar.}}{\text{Total of all Utility Declarations}}$

Column #8 Equals Column #5 minus Column #7

Column #9 Equals sum of Firm sales plus Actual Non-firm sales to SW (Column #2 plus Column #7)

Column #10 NW sale (indicated as a plus)

Based on the equation "is SW sale $\geq$ .95 * Permissible SW schedule;"
If yes, then NW sale equals Basic allocation minus SW sale
If no, then NW sale set to zero.

NW purchase (indicated as a minus)

Equals $\frac{\text{The Summation of all NW sales * Utility need}}{\text{Total of all Utility needs}}$

Note Utility need equals Basic allocation minus Firm sale

#1 Condition 1 Base

PROPOSED ALLOCATION
2500 MW LINE

	Firm	Non-Firm	Total	Basic Allocation	Actual Sale Non-Firm	Permissible Schedule To SW	Permissible Schedule To NW	Actual Schedule To SW	Actual Schedule To NW
NW-A	0	7,000	7,000	1,483	1,125	1,125	358	1,125	358
NW-B	300	0	300	64	0	300	-236	300	-236
NW-C	50	600	650	138	67	117	21	117	21
NW-D	500	500	1,000	212	0	500	-288	500	-288
NW-E	0	500	500	106	80	80	26	80	26
NW-F		800	800	169	129	129	41	129	40
NW-G		1,000	1,000	212	161	161	51	161	51
NW-H		500	500	106	80	80	26	80	26
NW-I		50	50	11	8	8	3	8	3
Total	850	10,950	11,800	2,500	1,650	2,500	0	2,499	0

BASE1

#2 Condition 1 Add Non-Firm Contract "E"

PROPOSED ALLOCATION
2500 MW LINE

	Firm	Non-Firm	Total	Basic Allocation	Actual Sale Non-Firm	Permissible Schedule To SW	Permissible Schedule To NW	Actual Schedule To SW	Actual Schedule To NW
NW-A	0	7,000	7,000	1,458	1,040	1,040	418	1,040	418
NW-B	300	0	300	63	0	300	-238	300	-236
NW-C	50	600	650	135	61	111	25	111	24
NW-D	500	500	1,000	208	0	500	-292	500	-290
NW-E	200	500	700	146	0	200	-54	200	-54
NW-F		800	800	167	119	119	48	119	48
NW-G		1,000	1,000	208	1,249	149	60	149	59
NW-H		500	500	104	74	74	30	74	30
NW-I		50	50	10	7	7	3	7	0
Total	1,050	10,950	12,000	2,500	1,450	2,500	0	2,499	0

BASE2

#3 Condition Add Large Non-Firm Declaration "A"

PROPOSED ALLOCATION
2500 MW LINE

	Firm	Non-Firm	Total	Basic Allocation	Actual Sale Non-Firm	Permissible Schedule To SW	Permissible Schedule To NW	Actual Schedule To SW	Actual Schedule To NW
NW-A	0	10,500	10,500	1,694	1,154	1,154	539	1,154	540
NW-B	300	0	300	48	0	300	-252	300	-250
NW-C	50	600	650	105	38	87	17	87	17
NW-D	500	500	1,000	161	0	500	-339	500	-337
NW-E	200	500	700	113	0	200	-87	200	-87
NW-F		800	800	129	88	88	41	88	41
NW-G		1,000	1,000	161	110	110	51	110	51
NW-H		500	500	81	55	55	26	55	26
NW-I		50	50	8	5	5	3	5	0
Total	1,050	14,450	15,500	2,500	1,450	2,500	0	2,499	0

BASE3

#4 Condition 1 Add a No Sale "G"

PROPOSED ALLOCATION
2500 MW LINE

	Firm	Non-Firm	Total	Basic Allocation	Actual Sale Non-Firm	Permissible Schedule To SW	Permissible Schedule To NW	Actual Schedule To SW	Actual Schedule To NW
NW-A	0	10,500	10,500	1,694	1,154	1,154	539	1,154	540
NW-B	300	0	300	48	0	300	-252	300	-231
NW-C	50	600	650	105	38	87	17	87	17
NW-D	500	500	1,000	161	0	500	-339	500	-312
NW-E	200	500	700	113	0	200	-87	200	-80
NW-F		800	800	129	88	88	41	88	41
NW-G		1,000	1,000	161	0	110	51	0	0
NW-H		500	500	81	55	55	26	55	26
NW-I		50	50	8	5	5	3	5	0
Total	1,050	14,450	15,550	2,500	1,340	2,500	0	2,389	0

BASE4

LTIAP CONDITION 1 MAXIMUMS

DATA FROM 1986-87 COORDINATED SYSTEM
PNUCC DATA FOR IDAHO

MAY CAPACITY

BASED ON 2000 MW ALLOCATION

	HYDRO	%	THERMAL	MISC	%	MAINT	%	CONDITION 1 LIMIT HYDRO THERMAL MISC			AVER. LOAD	SURPLUS DECLAR	CONDITION 1-2 ALLOCATION ALLOC
								HYDRO	MISC	MAINT.			
MONTANA	192.9	0.60%		972.0	2.92%	-48	3.43%	12	58	69	896.0	220.9	45
PACIFIC	1249.8	3.92%	775.0	1176.0	8.02%	-1328	5.76%	78	160	115	1788.5	0.0	0
PORTLAND	1153.8	3.62%	2065.8	86.5	8.28%	-1731	4.84%	72	166	97	1386.6	0.0	0
PUGET	1801.6	5.65%	249.5	349.0	6.01%	-385	6.19%	113	120	124	1493.0	522.1	106
WWP	1141.3	3.58%	531.2	20.3	4.24%	-391	4.00%	72	85	80	1117.1	184.7	38
CHELAN	269.2	0.84%			0.67%	-28	0.74%	17	13	15	173.6	67.6	14
CLOCKUM	295.3	0.93%			0.74%	-34	0.80%	19	15	16	176.8	84.5	17
GRANT	617.0	1.93%			1.55%	-77	1.66%	39	31	33	361.4	178.6	36
DOUGLAS	201.2	0.63%			0.50%	-19	0.56%	13	10	11	99.8	82.4	17
COWLITZ	154.3	0.48%			0.39%	-20	0.41%	10	8	8	54.5	79.8	16
PEND OREILLE	0.0	0.00%		0.6	0.00%		0.00%	0	0	0	0.5	0.1	0
SNOHOMISH	103.0	0.32%	102.0		0.51%	-114	0.28%	6	10	6	139.3	0.0	0
SEATTLE	1821.1	5.71%	131.4	142.5	5.25%	-291	5.55%	114	105	111	938.7	865.3	176
TACOMA	683.8	2.14%			1.71%	-171	1.58%	43	34	32	195.6	317.2	64
EUGENE	80.8	0.25%			0.20%	-18	0.19%	5	4	4	41.4	21.4	4
FEDERAL	20478.9	64.19%	324.0	56.0	52.26%	-2725	55.74%	1284	1045	1115	11465.5	6668.4	1354
IDAHO	1660.0	5.20%	1025.0		6.73%		8.25%	104	135	165	2130.0	555.0	113
TOTAL	31904.0	100.00%	5203.9	2802.9	100.00%	-7380	100.00%	2000	2000	2000	22458.3	9848.0	2000

JUNE CAPACITY

BASED ON 2000 MW ALLOCATION

	HYDRO	%	THERMAL	MISC	%	MAINT.	%	CONDITION 1 LIMIT HYDRO THERMAL MISC			AVER. LOAD	SURPLUS DECLAR	CONDITION 1-2 ALLOCATION ALLOC
								HYDRO	MISC	MAINT.			
MONTANA	196.0	0.60%		972.0	2.89%	-41	3.53%	12	58	71	898.6	228.1	33
PACIFIC	1290.2	3.97%	775.0	1186.0	8.03%	-1354	5.95%	79	161	119	2261.0	0.0	0
PORTLAND	1159.1	3.57%	2056.8	75.5	8.13%	-1907	4.34%	71	163	87	1439.2	0.0	0
PUGET	1818.6	5.60%	249.5	349.0	5.97%	-396	6.34%	112	119	127	1496.7	524.5	75
WWP	1176.2	3.62%	531.2	18.1	4.26%	-388	4.20%	72	85	84	1088.5	249.1	36
CHELAN	269.7	0.83%			0.67%	-29	0.76%	17	13	15	111.4	129.4	18
CLOCKUM	295.3	0.91%			0.73%	-34	0.82%	18	15	16	85.9	175.9	25
GRANT	617.0	1.90%			1.52%	-74	1.70%	38	30	34	374.4	168.3	24
DOUGLAS	201.2	0.62%			0.50%	-17	0.58%	12	10	12	71.3	113.1	16
COWLITZ	163.0	0.50%			0.40%	-20	0.45%	10	8	9	61.4	81.7	12
PEND OREILLE	0.0	0.00%		0.6	0.00%		0.00%	0	0	0	0.4	0.2	0
SNOHOMISH	103.0	0.32%	102.0		0.51%	-114	0.29%	6	10	6	75.2	0.0	0
SEATTLE	1918.1	5.91%	130.4	142.5	5.41%	-417	5.56%	118	108	111	712.3	1061.8	151
TACOMA	811.1	2.50%			2.00%	-158	2.05%	50	40	41	174.7	478.0	68
EUGENE	99.7	0.31%			0.25%	-16	0.26%	6	5	5	60.6	23.6	3
FEDERAL	20701.5	63.74%	324.0	56.0	52.09%	-3630	54.74%	1275	1042	1095	7217.2	10234.6	1460
IDAHO	1660.0	5.11%	1025.0		6.63%		8.42%	102	133	168	2130.0	555.0	79
TOTAL	32479.7	100.00%	5193.9	2799.7	100.00%	-8593	100.00%	2000	2000	2000	18258.8	14023.3	2000

JULY CAPACITY

BASED ON 2000 MW ALLOCATION

	HYDRO	%	THERMAL	MISC	%	MAINT.	%	CONDITION 1 LIMIT HYDRO THERMAL MISC			AVER. LOAD	SURPLUS DECLAR	CONDITION 1-2 ALLOCATION ALLOC
								HYDRO	MISC	MAINT.			
MONTANA	198.2	0.59%		1297.0	3.43%	-47	3.90%	12	69	78	1259.2	188.7	25
PACIFIC	1302.2	3.90%	892.6	1516.0	8.51%	-1066	7.13%	78	170	143	2317.0	0.0	0
PORTLAND	1224.3	3.67%	2047.8	25.7	7.56%	-698	7.01%	73	151	140	1761.0	0.0	0
PUGET	1817.5	5.45%	367.1	689.0	6.59%	-285	6.98%	109	132	140	1900.0	688.7	92
WWP	1174.3	3.52%	531.2	13.8	3.94%	-192	4.12%	70	79	82	943.0	584.4	78
CHELAN	252.0	0.76%			0.58%	-25	0.61%	15	12	12	133.1	94.0	13
CLOCKUM	293.9	0.88%			0.67%	-29	0.72%	18	13	14	294.6	0.0	0
GRANT	564.1	1.69%			1.29%	-104	1.24%	34	26	25	311.8	148.0	20
DOUGLAS	200.2	0.60%			0.46%	-16	0.50%	12	9	10	177.9	6.5	1
COWLITZ	159.8	0.48%			0.37%	-17	0.39%	10	7	8	54.0	88.9	12
PEND OREILLE	0.0	0.00%		0.6	0.00%		0.00%	0	0	0	0.3	0.3	0
SNOHOMISH	103.0	0.31%	102.0		0.47%	-111	0.25%	6	9	5	101.6	0.0	0
SEATTLE	1981.7	5.94%	129.5	142.5	5.17%	-204	5.52%	119	103	110	660.2	1389.6	186
TACOMA	876.5	2.63%			2.01%	-340	1.44%	53	40	29	116.9	419.2	56
EUGENE	112.3	0.34%			0.26%	-39	0.20%	7	5	4	58.9	14.9	2
FEDERAL	21440.7	64.27%	1404.0	56.0	52.52%	-3325	52.76%	1285	1050	1055	8845.0	10731.0	1440
IDAHO	1660.0	4.98%	1025.0		6.16%		7.24%	100	123	145	2130.0	555.0	74
TOTAL	33360.7	100.00%	6499.2	3740.6	100.00%	-6496	100.00%	2000	2000	2000	21064.5	14909.2	2000

"Exhibit C"

RESOURCE INFORMATION

Boundary Units 55 and 56 Chronology

1. July 1981 - Endorsed by City Council
2. April 1982 - License Amendment by FERC
3. July 1983 - Construction contract awarded to install Units 55 and 56
4. October 1985 - First generation Unit 55
5. December 1985 - First generation Unit 56

High Ross Chronology

1. 1978 - License Amendment issued by FERC
2. March 1984 - Contract with Canada
3. January 1985 - Power became available under the contract
4. July 1986 - Serve firm load under BPA contract
5. January 1984 - Declared to serve firm load in July 1986

SCBID Chronology

1. May 1980 - Contracts signed to build all five plants
2. September 1982 - Smith plant becomes commercial
3. Fall 1982 - PEC 4.6 & 66.0 plants begin generation
4. July 1984 - Summer Falls begins generation

4a. January 1984 - Main Canal construction begins

5. July 1986 - Main Canal begins generation

Lucky Peak Chronology

1. April 23, 1984 - Lucky Peak contracted for
2. January 26, 1980 - FERC license applied for
3. June 10, 1980 - FERC issued the license
4. May 25, 1984 - Construction of the project began
5. July 1, 1988 - Expected first generation from the plant

Rocky Brook Chronology

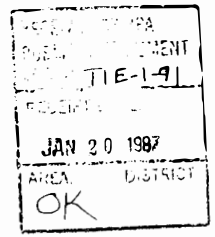
1. December 10, 1984 - Contracted for
2. April 14, 1986 - Began commercial operation

EX.C

ICP INTERCOMPANY POOL
TELEPHONE: 509/482-4599
P.O. BOX 3727
SPOKANE, WASHINGTON 99220

January 14, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, OR 97212



Re: Proposed Long Term Intertie Access Policy

Dear Ms. Geiger:

This is in response to Bonneville's request for comments on its Proposed Long Term Intertie Access Policy (PLTIAP), dated October 1986. If Bonneville's procedure follows the published schedule, these will be the last in a voluminous and consistent series of ICP comments, which began in the summer of 1983.

I have reviewed our very thick file on this subject several times while getting ready to respond to BPA's PLTIAP. That review, together with BPA's conduct of two public sessions which I attended (November 19 and December 10, 1986) during the same period, deepened my feeling of futility about the process. From the very first round of comments on the issue, the ICP has constantly called attention to the fundamental commitments which underlay the construction and operation of the Intertie, and which we believe still apply; BPA has just as constantly ignored these references. For the sake of future cooperation, and for the sake of credence in the public involvement process, I hope that Bonneville will respond to these arguments this time.

Furthermore, as I asserted in my first letter of comments, the ICP is not simply another group of opinionated observers; we are the primary customers of the services covered by the IAP. There would not be a BPA Intertie if we had not agreed to BPA's construction of the facility, in return for the commitments we speak of. We view this structure as amounting to a covenant and the IAP properly as implementing that covenant. The parties to it are BPA and the scheduling utilities of the Northwest. Our arguments must be taken seriously.

PRINCIPLES

In our past comments we have, as stated above, repeatedly cited the body of legislation, legislative history and understandings which must be the principles on which an IAP is built.

Section 6 of the Regional preference Act says that "Any capacity in Federal [Intertie facilities] which is not required for the transmission of Federal energy or [CSPE energy] shall be made available as a carrier for transmission of other electric energy..." The Act followed intense discussion and negotiation in the Northwest concerning the ownership and disposition of the northern end of the Intertie, and there are many references available indicating the intentions of the parties. Charles Luce, then Bonneville Administrator, is frequently quoted as saying that BPA wanted only to assure itself of a "fair share" of Intertie capacity. The House and Senate Reports which accompanied the Regional Preference Act, explained that Section 6 gave BPA priority for its actual or reasonably foreseen transactions, but went on to say that "the Secretary may not decline to enter into a wheeling agreement merely because he may have energy available for sale to serve the same load."

Some notion of the "fair-share" approach which was understood to have been required by those involved in the development of the Intertie can be obtained by looking at the "Exportable Energy

Agreement." That contract became effective in January 1969, just about the time when the Intertie went into service. Among other things, it provides for an allocated access to the Intertie among the parties, after certain priorities are exhausted. BPA subjected itself to the allocation on the same terms as all other parties. That is, it is clear that the BPA people who put the Intertie package together did not believe a "BPA-first" policy was legitimate. Similarly, we have supported the formula allocation portion of the Near Term IAP, because it continues implementation of the traditional and statutory requirements for sharing fairly Intertie capacity.

In 1974 the Transmission Act (P.L. 93-454) was passed. Its Section 6 says (in full), "The Administrator shall make available to all utilities on a fair and non-discriminatory basis, any capacity in the Federal transmission system which he determines to be in excess of the capacity required to transmit electric power generated or acquired by the United States." Note that this Section 6, as well as the one in the Regional Preference Act, uses the word "shall"; there are no conditions or qualifications.

The Regional Act (P.L. 96-501) in Section 9(d) says that, subject to legal, contractual and availability considerations, "the Administrator shall provide transmission access, load factoring, storage and other services normally attendant thereto to [any] utilities and shall not discriminate against any utility or group thereof on the basis of independent development of such resource in providing such services." The clear intent of this passage is to reaffirm that BPA shall not use access to its service functions to force resource dependence upon non-Federal utilities. Again, the word is "shall." To the extent of my knowledge, the only place the phrase "marketing program" appears in any statutory document is in Section 9(i)(3) of the same Act, where it is clearly intended to limit the new priority given by that Section to services for certain resources. Yet BPA seizes on

that obscure reference as a discretionary limitation on all access. In my recollection, BPA has cited no statutory authority at all for denying access to the capacity of resources which it deems to be harmful to fish and wildlife.

Bonneville began with one function, the marketing of power from Federal resources; over the years, it has acquired a second function, the providing of a number of services, among them transmission, to non-Federal utilities. At each step of expansion, commitments to provide services have been established in return for allowing BPA to dominate the facilities which provide those services. Those commitments generally prohibit BPA from denying access to the services function as a means of enhancing its power marketing function -- or simply as a means of asserting arbitrary power. If BPA persists on its proposed course and withstands whatever review is taken, it will prove that we made a serious error in relying on Bonneville's commitments, and I will try to make sure that ICP members do not make that mistake again.

I can understand how galling it must be, under present conditions, for BPA to provide services which impact its sales revenues. I can understand it well, in fact, because in the early 1960s, I was a BPA negotiator on the Coordination Agreement. At that time Bonneville had a large, unsalable firm surplus and had failed to meet its payout requirement for several years. Despite BPA's desperate need for revenue, I had to work on a contract which, pursuant to a set of preset principles, would provide BPA customers a wide range of new services, all of which would cut further into BPA sales of both firm and non-firm power. The marching orders for the BPA team of negotiators were to do the best we could for BPA <u>but</u> to work within the set of principles. The BPA staff was frustrated about what we perceived as "giving away the store" in the short term, but management properly took a longer view of the regional situation. It was felt important then that utilities could rely on BPA's commitments, and I believe it

still is. Commitments which are observed only under conditions of prosperity are meaningless.

I propose the following set of principles for BPA's Intertie Access Policy:

1. Consistent with statute, BPA will have priority for its actual and reasonably foreseeable firm power transactions (this is not an "ICP-first" policy)
2. Northwest non-Federal access may be conditioned only on factors relevant to the use of the facility.
   a) It is appropriate to give access only to scheduling utilities.
   b) It is inappropriate to condition access on BPA's, or the region's, load/resource balance. BPA is already protected against a non-Federal export increasing BPA's obligations. BPA may not deny access to a transaction because it will reduce the non-Federal utility's purchase from BPA.
   c) It is inappropriate to deny access in order to force a Southwest utility to deal with BPA instead of a Northwest non-Federal utility.
   d) It is inappropriate to condition access on BPA's determination of a non-Federal utility's compliance with BPA's fish-and-wildlife ideals.
3. The IAP should be phrased in terms of entities which make transactions in the interconnected system. These are utilities; they are not resources. The only appropriate (although unnecessary) reference to resources is in the case of "9(i)(3) Priority Sales", since the Act refers here to resources.
4. Canadian utility access under Condition 2 should be conditioned on a level of coordinated operation with the Northwest consistent with that of Northwest utilities. In addition,

Assured Delivery for Canadian utilities should be conditioned on both:

a) an increase of Intertie capacity to a level in excess of 7500 MW, and

b) reciprocal use of Southwest and Canadian transmission by BPA and Northwest utilities

Requiring additional, special consideration would be inappropriate.

5. A Long Term IAP should be worded as generally and as clearly as possible, so as to be applicable for a long time without modification.

ASSURED DELIVERY VS. FORMULA ALLOCATION

One of the problems which has been most vexatious in the history of the Intertie has been the inherent conflict between access for non-firm energy and access for non-Federal firm contracts. This problem has been addressed in every one of the sets of ICP comments made during the IAP development. As I said in my letter of April 4, 1986, this is a difficult problem to resolve in principle, because "the established guides for Intertie practices which I advocate do not illuminate the issue very well. In general, the ICP companies have expressed their belief that the most appropriate use of a capital facility is for firm transactions. On the other hand, we recognize that non-firm uses have historically been of tremendous value to all utilities and their customers in the region."

Also in each of my sets of comments, beginning in 1983, I have suggested that the WWP-SCE-BPA contract be used as a model for providing a balance between firm and non-firm access in the LTIAP. That proposal is discussed in my letter of April 4, 1986, a copy of which is attached, and I'll not repeat that explanation here. Recent discussions among ICP members have revealed concerns

by several utilities that the proposal might be too heavily weighted in favor of non-firm access. A few alternatives have been proposed:

1. The WWP-SCE-BPA model, as originally described.
2. The WWP-SCE-BPA model, modified so that the utility which has Assured Delivery is obligated only to buy half the non-firm energy which was displaced by the firm schedule.
3. Exempting straight firm sales of energy above a certain load factor, say 55%, from displacement by non-firm energy -- but requiring the WWP-SCE-BPA model displacement for low-load-factor sales, including naked capacity, peak/energy exchanges and seasonal exchanges. This distinction would have to be justified on the basis that it reflected a better use of the Intertie, rather than on considerations of marketing or load/resource balance.
4. Declaring a block of Intertie capacity available for Assured Delivery, say 1600 Mw or perhaps one-third of existing capacity, on a first-come-first-served basis, with no displacement by non-firm energy.

The latter two alternatives would rely on the realities of the marketplace to avoid the potential conflict between firm and non-firm access, until Intertie expansions render those concerns academic.

ALTERNATIVE DRAFT LONG TERM INTERTIE ACCESS POLICY

The second attachment is a proposed Alternative Long Term Intertie Access Policy. Instead of commenting by simply providing a point-by-point critique of BPA's PLTIAP, the ICP members believe it would be more useful to demonstrate how our principles would yield a brief, understandable, internally consistent and legitimate document. The Alternative contains language implementing the WWP-SCE-BPA model for dovetailing Assured Delivery and Formula

Allocation, but it could be changed easily to incorporate any of the other alternatives presented in the foregoing section. My intention in drafting it was to follow BPA's format to the extent possible. Some additional discussion follows, by Section of the Alternative:

A. Definitions were changed in some cases only as an attempt to improve the wording. Those unnecessary to the text of the Alternative were deleted. Several were converted to reference utilities, rather than resources; the text contains no references to resources. A definition of "Intertie Coordinating Agreement" was added.

B. No changes were made.

C, D and E. All conditions regarding the Administrator's Power Marketing Program have been removed. Consistent with our position that said Program only influences the priority afforded "Section 9(i)(3) Sales," I have assumed that the decision as to whether a resource qualifies for such priority will be made outside the IAP. I have suggested that the priority granted such a sale is inclusion within the "BPA Reservation." I have removed as being illegitimate all conditions for access which discriminate on the basis of fish-and-wildlife considerations. I have provided an unlimited "BPA Reservation," covering not only existing and future BPA firm sales, purchase and exchange agreements, but also current year's surplus BPA FELCC; that Reservation would also include non-Federal "FD-Supported Sales" and, as mentioned above, "Section 9(i)(3) Sales." I have removed all distinctions about types of contracts in providing Assured Delivery; most of those distinctions in the PLTIAP are transparently intended either to prevent competition with BPA in the Southwest market or to enhance BPA's sales to Northwest generating utilities. Others are intended to avoid firm (or sham firm) transactions interfering with BPA's non-firm sales; that protection is provided in the Alternative by the "displacement" mechanism. Section E(7) has been deleted;

under Sections 9(c) and 9(d) of the Regional Act and under Section 3(d) of the Regional Preference Act, BPA cannot obligate itself to provide firm replacement energy for the output of a non-Federal utility's resources sold outside the region -- there is no need to repeat that commitment here. The requirement that a utility must use its own rights to transmission between the Northwest and Southwest before requesting access to Intertie Capacity has been changed, so that it only applies in cases of transactions with the same utility in the Southwest; BPA's position on this point, as stated in the meeting of November 19, 1986, is outrageously unfair.

F. The major changes from the PLTIAP are in the wording of Condition 1 and in the provision of language implementing the WWP-SCE-BPA model. We believe that the only reason for providing Condition 1 in the Near Term IAP was the requirement that the Exportable Agreement be implemented. Condition 2 is perfectly adequate otherwise to allocate Intertie capacity under any system condition. Therefore, we have proposed that, if the Exportable Agreement disappears, so does Condition 1. As formulated in the PLTIAP, Condition 1 is simply a means of increasing BPA's allocation when BPA is likely to have large amounts of surplus energy. This would appear to depart from the "fair-share" principle that I have noted earlier. In any case, we believe that its present wording might have unfortunate consequences for BPA and regulated utilities; the facts that it is triggered by the likelihood of spill and that the allocation is based on hydro capacity would surely imply that all energy exported under Condition 1 is hydro energy. I understand than Condition 1 is expected to award BPA about 65% of Intertie capacity. If BPA intends to provide itself a greater allocation under conditions of large surplus, I suggest that BPA simply and explicitly do that by defining its allocation as 65%, with the rest allocated in proportion to declaration. Furthermore, hydroelectric capacity is irrelevant to an allocation of surplus

energy. In addition, the trigger should be defined as imminent spill or reduction of planned energy from a base-load resource.

G. I have inserted a section describing briefly the proposed Intertie Coordinating Agreement, whose primary function would be to implement the WWP-SCE-BPA model.

H. This is BPA's Section G, without much change.

I. This is BPA's Section H. We believe the most that can be required of Canadian utilities for approximately equal access is coordination approximately equal to that existing among Northwest utilities, including BPA. We also believe, therefore, that it is eminently reasonable for BPA to demand access for itself and Northwest utilities across the transmission of Extraregional Utilities, both in Canada and in the Southwest, on equivalent terms and conditions to those provided by BPA for Assured Delivery between Canada and the U.S. Southwest. This is such an obvious, evenhanded and equitable requirement, as well as being potentially enormously beneficial to the region, that it would be shameful to omit it from the IAP. BPA demands resolution of Treaty issues and "other appropriate consideration of value" in return for access; surely, mutual transmission access is the most logical of considerations.

FINALLY, FISH AND WILDLIFE

Another matter on which ICP comments have been thoroughly consistent, from the start of this process, has been the proposed limitation of access based on BPA's judgment of the non-Federal utility's compliance with fish-and-wildlife goals. One point that I want to make sure is not lost in the discussion is that the argument has nothing to do with fish and wildlife.

The investor-owned utilities in this region are, and have been, eminently aware of their environmental responsibilities, including those regarding fish and wildlife. They are closely

attuned to the sensibilities of the communities which they serve and the areas in which their facilities are located. They are not only committed to compliance with all legal and permit obligations, but commonly extend themselves well beyond those requirements to enhance public relations and their reputations as good citizens. They will not take a back seat to BPA in their efforts to balance environmental and rate-payer interests.

In short, we have no concern about any objective judgment of our meeting fish-and-wildlife obligations, in an exercise of due process. What we will not accept is denial of an important service on BPA's discretion. BPA's proposed language is simply a formula for transmuting petty bureaucrats into petty tyrants. This became obvious at the BPA meeting on November 19, 1986 where a Bonneville representative assured a questioner from National Marine Fisheries Service that the Policy was intended to be "punitive" with respect to resource owners who didn't live up to BPA's goals, that BPA intended to "punish" those who were deemed wanting.

Once again, there is nothing in the Regional Act that gives BPA authority to condition non-Federal Intertie access on compliance with fish-and-wildlife goals, real or imagined. The Act requires BPA to use its revenues to help repair the damage done by Federal hydroelectric development; if Congress intended to allow BPA the truly momentous discretion to punish non-Federal utilities through denial of services, it would have done so clearly -- also clearly, in that case, there would have been no Regional Act. The Regional Act does not repeal the Transmission Act's requirement for non-discriminatory access.

The precedent is indeed chilling; there is nothing Intertie-specific about BPA's justification of its proposal. If it is applicable to Intertie wheeling, it is applicable to all wheeling, even the wheeling of a regional resource to regional load. Of

course, it would also apply to load-factoring, storage, reserve back-up and all other services which BPA committed to provide Northwest utilities.

And where would it stop? If BPA can discriminate in providing services on standards that exceed the requirements of permit, license or statute, will we find a self-aggrandizing BPA staff making decisions on their opinion of a utility's treatment of acid rain, nuclear waste storage, investments in South Africa or Comparable Worth? Or any other cause supported by a clamorous pressure group?

The language is a gratuitous provocation; it does discredit to a tradition of business-like service; it is an unauthorized usurpation of regulatory authority; for BPA's sake, delete it!

Sincerely yours,

Merrill S. Schultz

Attachments
cc: ICP Committee, Alternates, Lawyers

ICP 20 II v 7.80

attachment
TIE-1-91

ICP INTERCOMPANY POOL

TELEPHONE 509/489-0500
P.O. BOX 3727
SPOKANE, WASHINGTON 99220

April 4, 1986

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, OR 97212

Re: BPA Long Term Intertie Access Policy

Dear Ms. Geiger:

By letter of March 11, 1986, James Jones, BPA Deputy Power Manager, distributed a Discussion Paper regarding Major Issues in the Development of the Draft Long Term Intertie Access Policy (LTIAP). In his transmittal letter, Mr. Jones invited comment on the issues discussed in the Paper.

The Discussion Paper raises a host of issues on a number of aspects of the LTIAP. As you are, I'm sure, ruefully aware, I have submitted written and oral comments on the many occasions and in the several public forums provided for such comment by BPA ever since development of the Policy began in 1983; I have also supplied advice to the Northwest Power Planning Council regarding its treatment of the Policy from time to time during the same period. Although different areas or issues of the Policy have been emphasized in each of my responses, they form a consistent overall position applicable to the Long-Term Policy, as well as the Near-Term Policy to which they were addressed. I hope that a full rehearsal of those comments is not necessary for consideration in this case; time and stamina are both limited.

GENERAL

The LTIAP, by its nature, should be designed to be effective over a long time and through changing conditions. I advocate BPA's adoption of as general a Policy as possible, based on a consistent set of principles. The Paper says that the LTIAP "must be sufficiently flexible to respond to changing conditions which may require new mechanisms...". Responsiveness to changing conditions is best provided by broad statements, made in the simplest possible language. Probably the worst approach would be to construct an elaborately detailed policy, based on yesterday's conditions and containing equally detailed procedures for treating precisely today's forecast of future situation. Yet it appears that BPA is headed in that direction. Since the Near-Term Policy was intended to be in effect only for a short period in which conditions were relatively predictable and during which full NEPA compliance work could not be accomplished, a high level of specificity might have been justified. I believe the appropriate approach to the LTIAP is to simplify, and not to add still more specificity.

Furthermore, much of the complexity indicated by the Discussion Paper appears to be the result of BPA trying to exercise authority it doesn't have, trying to duplicate safeguards already provided elsewhere or trying to fix problems caused by an inappropriate BPA rate structure. The Discussion Paper also, it seems to me, reveals a dichotomy in BPA's character, such that BPA proposes to act as an independent, entrepreneurial power marketer in some cases but as a paternalistic guardian of perceived regional interests in others.

I and others in the ICP in our past comments have invoked the body of legislation, legislative history and understandings that constitutes the quid pro quo for the non-Federal utilities of the Northwest having acquiesced to BPA control of the Intertie. In

its Record of Decision on the Near-Term Policy, in dealing with the issue of access to be granted extraregional utilities, BPA acknowledged that structure. However, in the Discussion Paper, BPA muses about applying all sorts of discriminatory, restrictive and self-serving conditions to Northwest utilities' access without even noting the prescriptive limitations on BPA's discretion. BPA repeatedly refers to the language of Section 9(i)(3) of the Regional Act, "...without substantial interference with [BPA's] marketing program..." as if it were a basis for limiting general access; this wording must be read in context with the whole of that Section, which concerns only the limited and contingent priority to BPA services given certain facilities. That language was, according to my understanding of the authors' intent, to apply a new condition to a new priority for a special case, and not to create a general condition for all BPA services -- it was certainly not intended to repeal existing statutory requirements. BPA has never responded to the many comments calling attention to the direct requirement for providing Intertie wheeling included in the Regional Preference Act and its legislative history, to the requirement for non-discriminatory access contained in the Transmission Act or to the requirement of the Regional Act that BPA provide services, including transmission, without discriminating against a utility on the basis of independent resource development. If BPA would adhere to those requirements, making "interference with its marketing program" a restriction applicable only to the priority on services given resources qualifying for such priority under Section 9(i)(3) of the Regional Act, as was intended, Bonneville could produce an LTIAP which would be brief, simple, understandable and responsive to changing conditions, as well as being consistent with the established rules.

BALANCING INTERTIE USE BETWEEN ASSURED DELIVERY AND NONFIRM ACCESS

Achieving an appropriate balance between firm and non-firm uses of the Intertie is a difficult problem, and the established guides for Intertie practices which I advocate do not illuminate

the issue very well. In general, the ICP companies have expressed their belief that the most appropriate use of a capital facility is for firm transactions. On the other hand, we recognize that non-firm uses have historically been of tremendous value to all utilities and their customers in the region. A majority of the ICP companies have supported an approach which would allow both beneficial uses to take place without substantial hindrance to either -- they have proposed using the WWP-SCE-BPA contract as a model for providing the balance between firm and non-firm access in general in the LTIAP. I should note that this is a majority, but not a unanimous, view.

Under this approach, and within the limits of dependable Intertie capacity, utilities would be permitted to establish virtually any kind of firm contract. Those utilities would include their firm obligations as part of the declarations appropriate to any allocation scheme in effect for any hour, and the obligations would be considered as part of the capacity to be allocated. To the extent a utility's firm obligations exceeded its allocation, it would have to purchase the excess from others allocated a portion of Intertie capacity, but only to the extent that actual sales, plus firm obligations, exceeded total capacity. Perhaps the Policy could provide that the lowest-cost non-firm energy would be so purchased first. This scheme would permit accustomed access for non-firm energy sales to continue without change, and it would allow new firm arrangements to be guaranteed -- with some risk of an occasional purchase obligation, to be sure -- without having to block out pieces of the Intertie for the competing uses of the facility. It would also remove much of BPA's concern about firm peak sales or exchanges tying up the Intertie during periods of highest value for economy interchange. It would appear appropriate to exempt only new firm transactions qualifying for the "9(i)(3)" priority from this requirement.

As I have opined earlier, BPA's provision of rational Intertie wheeling rates should remove any remaining concern about the nature of firm arrangements. The establishment of a demand-rate (expressed in dollars per kw-year, kw-season or kw-month) for firm transactions would additionally discourage sham firm contracts which might be negotiated only to increase a utility's ability to market non-firm energy. With this combination, BPA would have no legitimate need to impose take-or-pay restrictions, minimum energy levels, requirements for obligation energy being wheeled to COB or NOB or several of the other onerous, arbitrary criteria suggested in the Discussion Paper.

THE EXPORTABLE AGREEMENT

Of course, the LTIAP must recognize the Exportable Agreement, because that contract will be in effect for some time after the expected date of publication of the Policy. If BPA thinks it possible that an extension of or replacement for that contact might be negotiated, the LTIAP should include some guidance. In particular, I suggest strongly that the allocation procedure in any successor agreement should allocate Intertie capacity, rather than the perceived market.

CONSTRAINTS ON ASSURED DELIVERY

If there are constraints on the total amount of Assured Delivery (other than total dependable Intertie Capacity) they should be related to the nature of the contract and not in any way dependent on a judgment by BPA or anyone else of the contracting utility's ability to perform. The LTIAP should concern itself with use of the Intertie; it should not be employed as a patronizing, unauthorized tool by BPA to prevent a utility from violating its basic responsibilities by selling itself into deficiency. BPA is protected from the utility selling itself into dependency by the Regional Preference Act, by BPA's ability to cut off

investor-owned utility customers on five years' notice and by Section 9(c) and (d) of the Regional Act. That is, safeguards against BPA being obligated to serve additional load resulting from a customer's sale are properly and already covered by statutory limitations on BPA's obligations -- there is no call for redundant protection in the LTIAP.

I suggest that the only constraints on Assured Access to be imposed by BPA should be to limit such Access to the size of the firm obligations required by contract, and that such Access should be restricted to scheduling utilities serving load in the region. In any case, the "Exhibit B" formulation is impossible in the long term.

I am not very sanguine about the likelihood of substantial BPA sales taking place under the proposed Firm Displacement (FD) concept. However, so long as the mechanism is expected to be available, the LTIAP should provide for it. Since firm export is a condition of an FD purchase imposed by BPA, BPA must provide Assured Access for at least the amount of the FD purchase, with the same priorities as BPA would grant itself if the same sale were made directly over the Intertie by BPA. BPA should provide additional Assured Access to the purchaser without limit and might grant priority (e.g. immunity against non-firm allocation) if needed to consummate a firm sale which otherwise would not be accomplished.

RELATIONSHIP TO REGIONAL RESOURCE PLANNING POLICY

None is appropriate to the LTIAP. If BPA chooses to oppose the construction or acquisition of a resource by a regional utility, there is plenty of opportunity in the many licensing and permitting processes required for any such project. As before, Section 9(d) of the Regional Act is sufficiently clear on this issue so as to make debate about the merits academic.

FISH AND WILDLIFE

I have provided BPA much comment on this subject in the past, and I have contributed to, and supported, the much more scholarly advice of PNUCC. I will not reiterate that comment, except to say, once more, that BPA has no authority to impose any kind of fish-and-wildlife qualification for Intertie Access. And I will presume the Administrator will operate in compliance with provisions of Federal law.

ACCESS FOR CANADIAN POWER

I have supported the treatment of access by Canadian utilities that BPA provided in the Near-Term Policy. In that Policy, BPA indicated that Canadian access for non-firm transactions might be modified in the direction of parity with U.S. access if the Canadian utilities agreed to enhanced coordination of their resources, chiefly reservoirs, with the U.S. Coordinated System. BPA has suggested that this improvement might be accomplished through new storage agreements. I prefer that BPA's conditions for enhanced access be directed at the Assured Operating Plans and Detailed Operating Plans established under the Treaty, rather than by tacking new incremental storage agreements onto ill-fitting and rigid Treaty Plans. Before generators were installed at Mica and Revelstoke, BC Hydro used to permit considerable flexibility in both the AOP and DOP, the better to suit U.S. Coordinated System needs. Obviously we cannot expect to receive the same flexibility that we were given before there was Canadian generation at, and downstream from, Treaty reservoirs, but I believe the Canadians could allow substantial movement without detriment to themselves. In addition, adoption of a scheme similar to "In Lieu Energy" in the Coordination Agreement could permit more operating flexibility, while allowing BC Hydro effective use of Treaty Storage for its own purposes.

I believe Assured Access for Canadian Power should also be considered in the LTIAP. Two conditions should be applied:

1. Assured Access for firm transactions between Canada and the U.S. Southwest should be contingent upon the advent of increased Intertie capacity above, say, 5200 Mw, and
2. The assurance of reciprocal treatment for U.S. regional utilities, including (but not limited to) BPA, should be provided for wheeling across the same Canadian and U.S. Southwest utilities' systems, on essentially equivalent terms and conditions. In fact, this condition, in addition to the provision of additional resource coordination, might be considered for enhanced non-firm access.

CONCLUSION

Bonneville was permitted to control the Pacific Intertie subject to a set of conditions which I and other ICP commenters have noted in each prior opportunity to discuss the Intertie Access Policy. If Bonneville would construct the Policy on those conditions, both permissive and restrictive, it could produce a clear, relatively simple and responsive LTIAP. BPA should submit to the limits on its discretion in permitting access; Bonneville should recognize that the requirements for non-discriminatory access do not permit BPA to use the Intertie to create by force a market for its power in the region, to impose its Resource Strategy on independent Northwest utilities or to sit in judgment of non-Federal utilities' compliance with Fish & Wildlife requirements.

Sincerely yours,

Merrill Schultz

Merrill S. Schultz

cc: ICP Committee, Alternates, Lawyers
Al Wright, PNUCC

Attachment
TIE-1-91

PROPOSED ALTERNATIVE LONG TERM INTERTIE ACCESS POLICY

A. Definitions

1. "Administrator" means the Bonneville Power Administrator and is used interchangeably herein with "Bonneville Power Administration" and "BPA."

2. "Assured Delivery" means Intertie transmission service provided by BPA pursuant to this policy that, for the term agreed by BPA in the transmission contract and regardless of changes of this policy, is interruptible by BPA only as a result of uncontrollable forces.

3. "Extraregional Utility" means a Scheduling Utility which serves no end-use consumer in the Pacific Northwest.

4. "FD-Supported Sales" means that portion of a firm power sale by a Regional Utility to an entity in the Southwest that is substantially equal to the Regional Utility's purchase of BPA Firm Displacement Power.

5. "Intertie Capacity" means transmission capacity of the Pacific Intertie which is controlled by BPA through ownership or contract right and available for the schedule of delivery of power between the Pacific Northwest and the Southwest.

6. "Intertie Coordinating Agreement" means a multi-party agreement intended by BPA to be established between BPA and Scheduling Utilities desiring access to Intertie Capacity, to implement certain aspects of this policy, chiefly transactions provided among BPA, Scheduling Utilities having Assured Delivery and Scheduling Utilities having allocations of Intertie Capacity under Section F hereof.

7. "Pacific Intertie" means those high-voltage (500 kV and above) transmission facilities, as designated by the Administrator, which connect the power system of the Pacific Northwest with that of the Southwest across the Oregon border with California and Nevada.

8. "Pacific Northwest" means the area defined in the Northwest Regional Preference Act (Public Law 88-552).

9. "Regional Utility" means a Scheduling Utility which serves end-use consumers within the Pacific Northwest.

10. "Scheduling Utility" means an electric utility, not including BPA, that operates an electric generation control area, together with any utility within BPA's generation control area that schedules transactions with BPA and is so designated by BPA.

11. "Section 9(i)(3) Priority Sales" means those sales designated by the Administrator as receiving priority under Section 9(i)(3) of the Pacific Northwest Power Act (Public Law 96-501).

12. "Southwest" means Extraregional Utilities that have access by ownership or contract to the Pacific Intertie, at points south of the Oregon border.

B. Term

This policy is effective on July 1, 1987, and will continue in effect until terminated or modified by the Administrator.

C. Conditions for Intertie Access

1. The Administrator will provide Assured Delivery or will allocate Intertie Capacity to BPA and to Scheduling Utilities pursuant to the conditions and procedures set forth in this policy, unless otherwise provided by the terms of contracts existing

on July 1, 1987, and listed in Exhibit C. Any Intertie transmission services provided for entities other than Scheduling Utilities or BPA must be arranged through the Scheduling Utilities, or BPA, responsible for the control of the transaction.

2. BPA will provide Assured Delivery or allocations of Intertie Capacity only for transactions of BPA and Regional Utilities, except to the extent that transactions of Extraregional Utilities are permitted access under this policy. For purposes of determining access to Intertie Capacity, Regional Utility declarations of available surplus energy shall not include amounts of energy that have been purchased from an Extraregional Utility, unless the Administrator would otherwise have provided direct access for such energy of the Extraregional Utility at such time. If the Administrator determines that energy purchased from an Extraregional Utility has been impermissibly included in a Regional Utility's declaration of surplus energy, BPA will adjust the Regional Utility's declaration accordingly.

3. The Administrator will provide Assured Delivery and allocations of Intertie Capacity to Regional Utilities and, under conditions provided in this policy, to Extraregional Utilities only when providing such access will not (a) substantially interfere with the operating reliability requirements of the Federal Columbia River Power System, or (b) conflict with legal or contractual obligations of the Administrator.

4. Any Scheduling Utility that has access to a Southwest Scheduling Utility by contractual or ownership rights in transmission capacity not included in Intertie Capacity will be required to use such rights prior to requesting access to Intertie Capacity for any transaction with the same Southwest Scheduling Utility.

D. Intertie Capacity Reserved for BPA (BPA Reservation)

BPA will reserve for its use amounts of Intertie Capacity as follows, in aggregate, but without overlap:

1. An amount sufficient to market BPA's surplus Firm Energy Load Carrying Capability, shaped seasonally and hourly as reasonably anticipated by BPA for best use
2. An amount sufficient to perform BPA's obligations under its existing contracts, as listed in Exhibit C, and its new firm power sales and exchange contracts
3. An amount sufficient to provide Assured Delivery for FD-Supported Sales
4. An amount sufficient to provide Assured Delivery for Section 9(i)(3) Priority Sales

E. Assured Delivery for Intertie Access

BPA will provide Assured Delivery appropriate to the firm power delivery requirements of qualifying Regional Utilities' contracts. For Assured Delivery not included in the BPA Reservation, the Scheduling Utility must be a signatory of the Intertie Coordinating Agreement, which will implement the provisions of this policy. It is BPA's intention to make the excess of Intertie Capacity above the amount required for the BPA Reservation, as adjusted for schedules in the direction opposite of that which may require allocation, to be made available for both Assured Delivery and formula allocation, as described in Section F below.

A Regional Utility requesting Assured Delivery for a contract must submit a copy of the proposed contract to the Administrator. The Administrator will review the contract and will, in a timely manner, inform the Regional Utility (1) of the amount of Assured Delivery which will be provided and (2) of the terms and conditions which will apply to wheeling of transactions under the contract. Assured Delivery for a contract will not be denied except if:

1. There is not sufficient Intertie Capacity remaining for Assured Delivery under the proposed contract,
2. The transactions provided by the contract are determined not to be firm transactions. A transaction will be considered firm if the contract provides the receiving party of any delivery thereunder the right to demand such delivery during the period of time specified for it, or
3. The Scheduling Utility requesting Assured Delivery is not a party to the Intertie Coordinating Agreement.

F. Formula Allocation Methods

1. The amount of Intertie Capacity available for formula allocation in either direction will be the Intertie Capacity available for schedule in such direction, adjusted appropriately by the BPA Reservation. BPA will determine the amount of Intertie Capacity available for formula allocation, and will determine the allocation according to the formulas described below.

2. One of three formulas will be used to allocate the available Intertie Capacity, depending on which of these following three conditions exists:

a. Condition 1: When Exportable Energy is being scheduled pursuant to the terms of the Exportable Agreement (BPA Contract No. 14-03-73155) or a successor agreement containing substantially equivalent allocation provisions, Intertie Capacity will be allocated according to the Exportable Agreement, as modified by the Intertie Coordinating Agreement described in Section G below. The Exportable Agreement expires by its terms on December 31, 1988; if there is no successor agreement, there will be no Condition 1.

b. Condition 2: When Condition 1 is not in effect, but BPA and Regional Utilities declare amounts of power available for access to the Intertie that exceed the available Intertie Capacity, the capacity will be allocated pursuant to the following procedure, as modified by the Intertie Coordinating Agreement described in Section G below:

(1) On any day the Regional Utilities observe as a normal workday, each Regional Utility will submit to BPA declarations of desired hourly Intertie schedules for the period beginning at midnight of the day of declaration and normally continuing through midnight of the next normal workday.

(2) For each hour of such declaration the Regional Utility shall also specify the portion of desired schedule which is an Assured Delivery.

(3) BPA's and the Scheduling Utilities' preliminary allocation for each hour will be determined and will approximate the ratio of each declaration to the sum of all declarations for each hour multiplied by the available Intertie Capacity.

(4) For each Regional Utility whose preliminary allocation is less than its Assured Delivery, its allocation will be increased to equal its Assured Delivery. The difference will be reflected first in BPA's allocation, to the extent that BPA has a preliminary allocation, and then, if necessary, in the allocations of Regional Utilities, pro rata, whose preliminary allocations exceed their Assured Deliveries.

c. Condition 3: When Condition 1 is not in effect, and when BPA and Regional Utilities declare power available for access to the Intertie in an amount that does not exceed the available Intertie Capacity, BPA's and each Regional Utility's allocations will be equal to their declarations.

G. Intertie Coordinating Agreement

1. It is BPA's intent to negotiate an Intertie Coordinating Agreement among itself and Regional Utilities to permit Regional Utilities a beneficial and equitable balance between Assured Delivery and formula allocation access to the unreserved portion of Intertie Capacity.

2. The Agreement will provide that, to the extent any party's allocation under Condition 1 or Condition 2, described above, is reduced by virtue of other parties' Assured Delivery, and to the extent that such party could have disposed of its preliminary allocation, such party may sell energy for such hour, up to the amount of the reduction in allocation, to the party(ies) whose Assured Delivery exceeds its preliminary allocation.

3. A party will be determined to have been able to dispose of its preliminary allocation if it is able to schedule substantially its reduced allocation.

4. The price of the energy will be the average price, at the source, of the energy which the selling party was actually able to sell over its reduced allocation.

H. Access for Extraregional Utilities

1. Extraregional Utilities will not be granted Assured Delivery, except as provided in the contracts shown in Exhibit C or as provided in Section I below.

2. Prior to the expiration of the Exportable Agreement or its successor, if any, access under Condition 1 is limited by the terms of said Agreement to its signatories. Except as provided in Section I below, Extraregional Utilities will not receive an allocation of Intertie Capacity under Condition 2. Under condition 3, Extraregional Utilities will have access to the Intertie to the

extent that Intertie Capacity is available in excess of the capacity used by BPA and Scheduling Utilities, except as provided in Section I below.

I. Special Provisions for Canadian Scheduling Utilities

1. Canadian Scheduling Utilities will be granted Assured Delivery only by contract with BPA. Such contract must include assurance of benefits to BPA and Regional Utilities such as increased availability of storage transactions and improved coordination of system operations, to a level similar to that which exists among Regional Utilities and BPA. In addition, such contract must contain provisions assuring BPA and Regional Utilities reciprocal use of the transmission systems of the Extraregional Utilities which are parties. Such Assured Delivery will also be conditioned on an increase of total Intertie transfer capability to an amount greater than 7500 MW.

2. BPA may, by contract, provide Canadian Scheduling Utilities limited access to Intertie Capacity under Condition 2, described above. Such access, however, would be conditioned on the Canadian Scheduling Utilities' participation in the Pacific Northwest's coordinated planning and operation to a greater extent than in the past.

3. Under Condition 3, Canadian Scheduling Utilities will have access to the Intertie to the extent that Intertie Capacity is available in excess of the capacity used by BPA, Regional Utilities and U.S. Extraregional Utilities.

J. Exhibits

CITY OF Glendale CALIFORNIA

119 North Glendale Ave., Suite 600, Glendale, CA 91206—4496 • (818) 956-2107

Public Service Department
WATER — LIGHT
POWER

January 16, 1987

Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Gentlemen:

Re: Comments on BPA Long Term Intertie Access Policy (LTIAP)

The City of Glendale (California) Public Service Department welcomes the opportunity to comment on Bonneville's Intertie Access Policy. Glendale's share of the D.C. Intertie represents its single largest capacity resource. Therefore, policies for access on the northern portion of the line are of paramount concern to our utility.

Our comments fall into four areas:

1. Preference to Long Term Firm Sales

The LTIAP severely limits Glendale's ability to negotiate and sign long-term purchase contracts with Pacific Northwest utilities other than BPA. A commitment to purchase, if at a reasonable load factor, should be granted intertie access up to the capability of the resource.

2. More Flexibility With Respect to Scheduling

The LTIAP as proposed is too restrictive with respect to monthly scheduling and scheduling for long term sales.

Under Condition I, the Intertie Capacity will be allocated to BPA only. If Glendale has prior energy contracts that are not assured deliveries with other utilities, they will not be able to deliver. Also, if the price of BPA energy is higher, it appears that Glendale will be forced to buy the higher priced energy.

1906-1986
"Eighty Years of Progress"

3. Greater Intertie Access to Pacific Northwest Utilities

It appears that BPA has reserved a large percentage of the Intertie Capacity for marketing its own energy. The remaining available Intertie Capacity would then be allocated to other utilities. This will limit the other utilities access to Intertie Capacity, and in turn, will limit Glendale from purchasing energy from other utilities.

4. Reiteration of Glendale's Comments on BPA's Discussion Paper of Major Issues in the Development of the Draft Long Term Intertie Access Policy (DLTIAP)

Because the LTIAP generally addresses the same issues in the DLTIAP, comments by Glendale made in its letter of March 31, 1986, are still relevant. A copy of that letter is attached.

Very truly yours,

W. E. CAMERON, P.E.
Director of Public Service

By: _____
R. V. Stassi, P.E.
Power Management Director

RVS:fd

Attachment
TIE-1-92

City of GLENDALE CALIFORNIA

PUBLIC SERVICE DEPARTMENT
WATER + LIGHT + POWER

119 North Glendale Ave.
Glendale, CA 91206-4496
Telephone: (818) 956-2107

March 31, 1986

Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Sir:

Re: Discussion Paper of Major Issues in the Development of the Draft Long Term Intertie Access Policy (LTIAP)

The City of Glendale, California, as an owner of the southern portion of the D.C. Pacific Intertie, welcomes the opportunity to comment on the above referenced "Discussion Paper." Glendale is currently pursuing long term firm purchase arrangements with Bonneville Power Administration (BPA) and others which, if consummated, would require Assured Delivery over the northern portion of the D.C. Intertie

Glendale recognizes that Bonneville Power Administration (BPA) desires an Intertie Access Policy (IAP) which will provide some certainty regarding the types of purchases which can be made and which will receive Assured Delivery on the Intertie. However, it believes BPA, in determining certain aspects of the policy, should retain some degree of flexibility to allow a business judgement of each transaction and its effect upon Northwest resources and revenues. For example, restricting access based upon a system average energy surplus may be appropriate to a system purchase. However, a purchase of a piece of a plant, or a contract purchase for the output of a piece of plant, requires an access equal to the contracted capacity if the purchaser is to receive the capacity and the energy which can be produced under that contract.

Glendale also understands that BPA may want to provide certain criteria regarding the firmness of take or pay obligations between purchaser and seller to obtain Assured Delivery. We believe that criteria should provide an area for judgement because the value to the BPA may be different for a stand alone contract as opposed to one which is combined with a firm purchase from BPA with the terms of the two agreements designed to complement each other, an avenue which Glendale is now pursuing.

Call back provisions, depending upon the terms, could present a deterrent to long term commitments for purchases from the Northwest. At best, such provisions would probably reduce the value of a purchase to the parties, and in the extreme, could direct efforts into other areas for long term resource needs, thus limiting Northwest-California transactions to the short term or spot market. It is requested that call back provisions would not be a requirement for Assured Delivery.

Seasonal exchanges and capacity-energy exchanges over the long term can be beneficial to both the Northwest and California utilities, so it is hopeful that provisions be made in the LTIAP for such transactions. Further, Glendale believes that there should be no firm requirement that return energy be delivered at the California-Oregon or Nevada-Oregon borders. Other delivery points can be developed which may be more advantageous to the parties.

Although not mentioned in the Discussion Paper, the term of an agreement providing Assured Delivery is also of concern to Glendale. As in the case of call back provisions, the agreement term can effect the value of a purchase. Glendale strongly suggests that if other provisions of a purchase agreement meet the requirements for Assured Delivery, the term of that access should be for the term of the purchase.

We appreciate the opportunity to comment prior to the issuance of the Draft LTIAP, and wish you success in its development.

Very truly yours,

W. E. Cameron, P.E.
Director of Public Service

RVS:fd

cc: Mr. J. Jones, BPA Deputy Power Manager

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: WD-136

JAN 16 1987

Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999-ALP
Portland, Oregon 97212

Dear Ms. Geiger:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act we have reviewed the Draft Environmental Impact Statement (DEIS) for Intertie Development and Use. The DEIS evaluates programmatic actions anticipated by BPA to increase the capacity of the Pacific Northwest Pacific Southwest Intertie and develop a long term policy for access to the BPA controlled share of the Intertie.

Based on our review we have rated the DEIS EC-1 (Environmental Concerns-Adequate). This rating reflects the fact that three of the seven decision packages could adversely affect fish survival and require mitigation. The DEIS provides adequate information for evaluation.

Water Quality and Fish

Increasing the capacity of the intertie would adversely affect anadromous and resident fish survival according to the DEIS. The Final EIS should explain the viability of mitigation and the net effect to fisheries among the intertie options. We would favor intertie options that maximize fish protection features.

Air Quality

The most significant air quality effect from increasing the capacity of the intertie is the reduction of air pollution from thermal generation in the Pacific Southwest. For those options that would increase air pollution in either region, the Final EIS should explain the intraregional opportunities to mitigate this effect.

Thank you for the opportunity to review this DEIS. Should you have any questions about our comments, please contact Wayne Elson at (FTS) 399-1463.

Sincerely,

Marcia G. Lagerloef
Chief, Environmental Evaluation Branch

State of California

GOVERNOR'S OFFICE

OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET

SACRAMENTO 95814

916/323-7480

GEORGE DEUKMEJIAN

GOVERNOR

DATE: January 15, 1987

TO: Mr. James J. Jura
Bonneville Power Administration
Post Office Box 3621
Portland, OR 97208-3621

FROM: Office of Planning and Research
State Clearinghouse

RE: SCH 86102806---Draft EIS, Intertie Development and Use and Proposed Intertie Access Policy, Bonneville Power Administration.

As the designated California Single Point of Contact, pursuant to Executive Order 12372, the Office of Planning and Research transmits attached comments as the State Process Recommendation.

This recommendation is a consensus; no opposing comments have been received. Initiation of the "accommodate or explain" response by your agency is, therefore, in effect.

Sincerely,

Huston T. Carlyle, Jr.
Director, Office of Planning and Research

Attachment

cc: Applicant

Resources Building
1416 Ninth Street
95814
(916) 445-5656
TDD (916) 324-0804

California Conservation Corps
Department of Boating and Waterways
Department of Conservation
Department of Fish and Game
Department of Forestry
Department of Parks and Recreation
Department of Water Resources

GEORGE DEUKMEJIAN
GOVERNOR OF
CALIFORNIA

THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA

Air Resources Board
California Coastal Commission
California Tahoe Conservancy
California Waste Management Board
Colorado River Board
Energy Resources Conservation And Development Commission
San Francisco Bay Conservation and Development Commission
State Coastal Conservancy
State Lands Division
State Reclamation Board
State Water Resources Control Board
Regional Water Quality Control Boards

Mr. James J. Jura
Bonneville Power Administration
Post Office Box 3621
Portland, OR 97208-3621

January 15, 1987

Dear Mr. Jura:

The State has reviewed the Draft EIS, Intertie Development and Use and Proposed Intertie Access Policy, Bonneville Power Administration, submitted through the Office of Planning and Research.

Review of this document was coordinated with the Energy and Public Utilities Commissions, Air Resources and Regional and State Water Boards, and the Departments of Fish and Game, Water Resources, and Health Services.

The Energy Commission has informed us that it has already sent its comments on this project directly to you by letter of January 14, 1987. None of the other above-listed reviewers has provided a comment.

Thank you for providing an opportunity to review this report.

Sincerely,

for Gordon F. Snow, Ph.D
Assistant Secretary for Resources

cc: Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

(SCH 86102806)

A-L-P

January 12, 1987

OFFICIAL FILE COPY
No. 1-14-2 Date JAN 14 '87
Referred To: TIE-1-95
Action Taken ☐ ANS. ☐ NO REPLY
By Date

CW

Mr. James J. Jura, Administrator
Bonneville Power Administration
U.S. Department of Energy
P.O. Box 3621
Portland, OR 97208

Dear Mr. Jura:

The Confederated Tribes of the Warm Springs Reservation of Oregon have a keen interest in the Administrator's long-term Inter-tie Access Policy. The Tribes are owners of the Pelton Reregulating Dam Hydroelectric generating facility, which facilities produce approximately 9 ave.-mw.

The Pelton Project which produces approximately 150 ave.-mw., is located in large part on tribal land and operates under a federal license which expires in 2001. The Tribes plan to be an applicant in the relicensing procedures. In addition to the Pelton Reregulating Dam facilities and the Pelton Project, the Tribes own undeveloped hydroelectric sites which may be developed during the next 15 years.

It is imperative that the long-term Inter-tie Access Policy include a provision for the transport of tribal resources in order to optimize the tribal benefits realized from such resources. We're confident that these tribal requests will be satisfied, consistent with the established BPA policy of recognizing the unique status of the Tribes, and the government-to-government relationship which exists between us.

Sincerely yours,

Larry Calica
Secretary-Treasurer

SR:DM:gs

Assign: Sienkiewicz/McLennan
cc: Normandeau, Spigal, Robertson, Klinger, Tupper, Geiger

ALP

TURLOCK IRRIGATION DISTRICT
PO BOX 949
333 EAST CANAL DRIVE
TURLOCK, CALIFORNIA 95381
(209) 632-3861 or 883-4021

January 16, 1987

PUBLIC [illegible] TIE-1-96
JAN 20 1987
AREA DISTRICT

Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Re: Comments on the Proposed Intertie Access Policy

Gentlemen,

On December 23, 1986 the Turlock Irrigation District transmitted comments concerning BPA's proposed Intertie Access Policy. Subsequently, BPA extended the due date for comments to January 16, 1987. This provided the District's staff with time for additional review and expansion of our comments.

Please substitute the attached comments for those contained in the December 23, 1986 letter from myself to the BPA Public Involvement Manager.

If you have any questions please feel free to contact Chris Kiriakou at (209) 632-3861, Ext. 510.

Thank you for your consideration in this matter.

Sincerely,

TURLOCK IRRIGATION DISTRICT

Norman C. Boberg,
Electrical Department Manager

NCB/CLK/ds
Attachment

cc: Mr. Ferris Gilkey
Mr. Robert O. Marritz

COMMENTS BY TID
ON BPA'S PROPOSED LONG TERM INTERTIE ACCESS POLICY
AND DRAFT EIS ON INTERTIE DEVELOPMENT AND USE

Turlock Irrigation District (TID) is a full service utility providing electric service to over 49,000 residential, commercial, industrial and agricultural consumers in Stanislaus County in central California. TID's 1985 peak load was 242 MW, and its energy consumption that year was 988,295 MWH. TID's 1985 needs were met largely from its own resources, which included 68.46 percent of the 165 MW Don Pedro hydroelectric project; an allocation of power from the Hetch Hetchy project; miscellaneous hydro generation associated with local irrigation; and its 4 MW allocation of power from Western Area Power Administration.

To meet its anticipated 1995 requirements, TID expects to augment these existing resources with 48 MW of its own combustion turbines, now being constructed; a 30 MW purchase from NCPA's Geysers geothermal project; and purchases from other suppliers within or outside California. In the expectation that firm and nonfirm energy sources outside California will prove attractive economically, TID has arranged through the Transmission Agency of Northern California, of which it is a member, to acquire an entitlement of about 90 MW in the California-Oregon Transmission Project, the southern portion of the planned third AC line which will interconnect California with the Pacific Northwest.

Because any resource TID may wish to purchase from Bonneville or a Northwest utility will be affected by policies applicable to the Northwest portion of the intertie, TID has a strong and immediate interest in the provisions of the proposed intertie policy and draft EIS. Our comments on the proposed policy and draft EIS will address portions of those documents which most affect the interests of TID and its consumers.

In general, our concern is that the intertie policy provide all Northwest systems having resources available for sale or exchange, including Bonneville, adequate and appropriate access to the Northwest portion of the intertie.

We are mindful of Bonneville's obligations to operate federal facilities consistent with its statutory mandates, including its repayment obligations, its duty to provide transmission service to nonfederal utilities, and other requirements of law, including its obligation to market energy with a priority to nonprofit public agencies and cooperatives.

We believe the proposed policy, while appropriate in some respects, is deficient in others, in that it ignores certain of BPA's statutory obligations. Specifically, we believe the proposed policy fails: (1) to reserve to BPA sufficient assured delivery capacity to market its reasonably foreseeable nonfirm energy sales to preference customers, consistent with BPA's statutory marketing obligations; and (2) to provide nonfederal Northwest utilities with assured delivery over the intertie on the basis required by Congress under existing law.

The section headings referenced below refer to sections of the proposed Long Term Intertie Access Policy.

Section D

The proposed policy would reserve "for BPA's use Intertie Capacity sufficient intertie capacity to transmit the full amount of BPA's firm power". We can understand BPA's desire to prefer its own marketing objectives in the design of the intertie policy, but doing so in the manner set forth in paragraphs 1 and 3.a of this section appears to us to contradict BPA's statutory transmission obligations under section 6 of the Regional Preference Act, Pub. L. No. 88-552. This law requires that BPA operate the intertie, in effect, as a common carrier for Northwest utilities, and not unduly prefer itself in providing transmission service. The legislative history of this law makes it quite clear that BPA may not refuse to transmit power for a nonfederal utility on the basis that BPA has surplus power it wishes to sell and for which, prospectively, it may conclude a sale in the future. BPA actually appears to have gone far beyond the proscribed position, in purporting in Par. D.1. to reserve for itself assured transmission line capacity sufficient to market its entire surplus, whether it has a market for that surplus or not, before making any assured delivery available to nonfederal entities. Par. D.3.a would go further, making clear that BPA intends to reserve itself assured delivery for potential "new BPA transactions."

Since Congress has not repealed, directly or by implication, BPA's requirements to transmit nonfederal power under Sec. 6 of Pub. L. No. 88-552 in any later enactment, BPA is constrained to act in accordance with this requirement. It is not free to fashion for itself an intertie policy provision which so clearly contravenes the duty Congress placed on it under Sec. 6. In addition to the fact that the law requires it, TID believes the public interest will be better served by a policy which is more even handed as between Northwest suppliers. Such a policy would lead to a more wholesome competition of the type Congress obviously had in mind when it required BPA to wheel for nonfederal parties in Sec. 6 of the 1964 law.

If an intertie policy which is consistent with Sec. 6 should appear to threaten BPA revenue collections, TID believes BPA has other means to ensure itself of having adequate revenues.

Section C.3

The provisions and legislative history of Sec. 6 of the regional Preference law clearly contemplates BPA transmitting for nonfederal parties when doing so may conflict with BPA's own long run marketing

interests.Accordingly, BPA's "Power Marketing Program" should be defined to take account of this transmission obligation.

It is unimportant whether this requirement is treated as an augmentation of BPA's power marketing program or as a limitation on it. What is important is the well understood rule that an agency may not create a "marketing program" rule by administrative fiat, no matter how compelling the reasons which may appear, when the rule would conflict with established law. This prohibition is all the stronger when, as here, the elements of the "marketing program" are so ill-defined and changeable that interested nonfederal parties cannot know, at any given time, the nature and extent of BPA's commitment to wheel, because it can be revised at any time by the Administrator.

The only way BPA may escape its intertie wheeling obligation under law is to change the law. If that task appears unduly difficult, it only serves to underscore the importance and durability of the obligation. While TID was not involved in the negotiations surrounding enactment of the Regional Preference law, it is common knowledge that BPA's commitment to wheel for nonfederal parties in the Northwest was at the heart of the bargain. Without that commitment, it is doubtful there would have been a law or intertie construction authorized as it was. Since that commitment was codified, it may not now be ignored.

Section E.4

For the reasons stated above, TID does not believe BPA has authority to refuse to provide transmission service for exchange agreements. These agreements were not excluded from the class of transactions for which BPA was required to provide wheeling service under Sec. 6 of the Regional Preference law. Moreover, there is insufficient information in the draft EIS to permit BPA to conclude that the environmental impacts of reducing the level of power exchanges between the Pacific Northwest and Pacific Southwest are more or less benign than facilitating such exchanges.

TID is interested in this provision because, while its principal interest is in securing a firm source of supply, it is also interested in an exchange and is well aware of the efficiencies such an exchange could provide to the contracting parties.

TID does not suggest that some reasonable rule differentiating between the access afforded firm sales on one hand and exchanges on the other would be prohibited. TID does believe the policy as promulgated unduly and unlawfully discriminates between the two types of transactions.

Sections C, D, E, and F

The assured delivery and formula allocation methods set forth in these sections fail to take account of the requirements of the preference clause. When BPA is in a position to sell energy on a nonfirm basis, the preference provisions of the Bonneville Project Act must be taken into account. The preference clauses of various applicable marketing laws are a central feature of the "Administrator's Power Marketing Program," within the meaning of section C.3.

When there is no market for BPA energy in the Pacific Northwest, energy BPA sells out of that region must be sold in accordance with the required priority to public bodies, both as a matter of statute and established administrative policy. Because the proposed intertie policy should follow and incorporate provisions of existing law, TID believes the proposed policy should be modified to facilitate nonfirm BPA energy sales to preference entities over the intertie. A reservation of capacity for this purpose could be made junior to the assured delivery computation, for example, but senior to the formula allocation. Accordingly, we suggest the assured delivery and formula allocation procedures of the policy should be modified, on some reasonable basis, to take account of requests for nonfirm service by public bodies in California.

TID is aware of the possibility of abuse by Bonneville of the "nonfirm preference reservation" suggested here. To eliminate the likelihood of such abuse, TID suggests that Bonneville develop a new element of the intertie policy, which fairly takes account of anticipated nonfirm marketing to extraregional preference customers. The best approach would probably take account of prior and current year marketing levels, and adjust for known changes or adjustments to these sales levels.

TID believes an approach which would afford a "nonfirm preference reservation" subordinate to assured delivery, but prior to formula allocation, would be consistent with existing law and fairest to the various interests.

From an operating standpoint, we note that Section 2c provides that the total maximum peak delivery granted assured delivery may not exceed the average firm energy surplus. We would assume the same criteria would apply to non-scheduling utilities.

BPA is aware that the forecasted average energy available from a single plant, takes into account both scheduled and forced outages. Therefore if a potential purchaser is to receive all the potential energy from a plant, the allocation of intertie capacity must be equivalent to plant capacity not the capacity resulting from average energy. We would urge a reconsideration of this potential restriction on sales to California utilities such as ourselves.

TID appreciates this opportunity to submit comments on the Proposed Long Term Intertie Access Policy, and hopes its views will be taken into account in BPA's reformulation of the policy and the underlying draft EIS.

PUD 3

Public Utility District 3 of Mason County
P.O. Box 490, Shelton, Washington 98584

Edwin E. Blakemore, Manager
(206) 426-8255

January 16, 1987

Mrs. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P. O. Box 12999
Portland, Oregon 97212

Dear Mrs. Geiger:

These comments are intended to address our concerns about the Draft Intertie Development and Use Environmental Impact Statement and the Proposed Long Term Intertie Access Policy. Except where indicated we will not separate comments which might pertain more to either the EIS or the policy since all aspects of the intertie are very closely related and tied together. However, these comments apply strictly to existing and proposed interties between the Northwest and California and do not necessarily reflect our views on the proposed Inland Intertie or other existing interties.

Our concerns are related to the following questions:

1. Should the intertie size be expanded?

2. Can BPA maintain access in a fashion to assure that its Power Marketing Program is not affected adversely?

3. Can long term contracts be written such that we feel comfortable and in control if recalling the energy is necessary?

4. Can we be assured that resources will not be built solely because of intended sales to California?

Expansion of the Intertie

Since BPA has decided to proceed with construction of the DC Terminal Expansion Project, we view the decisions regarding intertie size as related to whether or not further expansion of the AC intertie is justifiable. Therefore, the decision that needs to be made is whether or not to continue with the Third AC/COTP project.

The reference (pages 2-3 IDU Draft EIS) to a net present value of $104 million for the Third AC/COTP may be misleading since this calculation is made exclusive of the DC Terminal Expansion project. This is substantiated on page S-3 of the same document where the maximum upgrade (7,900 MW) which would include both the DC Terminal Expansion and the Third AC/COTP project results in a net present cost of $145 million. Due to the complexity of the analysis and modeling involved, we are not in a position to either support or deny the accuracy of those numerical results, but it is apparent that justification for the Third AC/COTP relies heavily on BPA's ability to execute viable, acceptable, long-term firm contracts. The acceptability relates to pf customers as well as BPA and California utilities.

The discussions of the possibilities of 800 MW being made available to Pacific Northwest generating utilities through a subscription process should remain open to public comment. If subscription rights are implemented, they should be subject to the provisions of the Intertie Access Policy to be adopted, unless it can be demonstrated that benefits to BPA will be greater through negotiation between BPA and subscribers (through public involvement).

It is disappointing, given the near term economic situation BPA faces, that for the analyses in the EIS, the maximum capacity intertie is assumed to become available in 1992. Hopefully some analysis will be undertaken before the final EIS to determine whether deferral of any Third AC/COTP activity would help mitigate some of BPA's proposed rate increase. If deferral helps, then the project should be deferred as long as it takes.

One of Congress' objectives in authorizing the building of an intertie system was to provide an equitable distribution of benefits for both regions. Upon examination of pages 4.8-1 - 4.8-4 it is very difficult to ascertain whether or not any of the claimed benefits of maximum intertie expansion actually are flowing to the Pacific Northwest. Perhaps more detail is needed in this area.

Access to the Intertie

The nonfirm allocation procedures of the Near Term Intertie Access Policy have proven to be an effective mechanism to provide benefits to BPA and its priority firm customers. We support these procedures and the concept behind them. However,

flexibility should be maintained. The "BPA First" alternative could have merit under certain conditions. This is due to the different generation mix which would occur using that alternative.

Even though BPA has determined the "Power Broker Alternative" is not reasonable for an Intertie Access Policy, this alternative should not be shelved entirely. Studies of the benefits, problems, and possibilities should continue to be made. After all, the policy which is adopted may not be applicable many years from now.

Firm Export Sales

It is very important that a reasonable amount of intertie space be available for nonfirm transactions. There are some assurances of this concept already built into the Draft Intertie Access Policy. These include:

1. That a utility having access to non-federal transmission fully utilize it before receiving access to federal facilities.

2. The use of Exhibit B and a utility's declared surplus as the upper limit for assured access.

Section E(2) of the Proposed Long Term Intertie Access Policy should help alleviate our fear that long term contracts will increase the cost of the "Residential Exchange". We request that BPA take immediate steps upon adoption of the policy within the ASC methodology to ensure this fear is alleviated.

We are pleased to see Section E(7) attempt to ensure that BPA's ability to serve Pacific Northwest load is not decreased.

It is apparent that providing excess amounts of long-term assured deliveries by other Pacific Northwest utilties will decrease BPA's flexibility for its own use of the intertie. We have premised our objectives on BPA flexibility. Furthermore, limits on assured access will promote conservation among generating utilities. Therefore, provisions for updates to Exhibit B should be approached with caution.

The priority given to surplus firm power sales over capacity sales and seasonal exchanges has merit in times of large surplus

and declining revenues. Our concerns revolve around BPA's ability to write contracts with provisions which will ensure that energy is recalled when needed. The concept of "Approaching Load/Resource Balance" is not clear. To date we do not know if a policy exists which states how BPA would ascertain whether the region is in a surplus or deficit situation. Contract language in the past has been vague on this subject.

Will BPA have lead time in this determination? How much lead time will BPA have when it is determined that energy should be recalled? Can BPA ensure that there will be no negative financial impacts to pf customers?

It is very interesting that on pages 2-8 of the draft IDU EIS, BPA states that with long term sales and maximum intertie capacity, the development of 236 aMW of new resources could be avoided. However, given long term sales and existing intertie capacity, the development of 232 aMW of new resources could be avoided. A negligible difference. Hence, our conclusion that the Third AC/COTP will not necessarily be responsible for avoided resource construction.

New Resources

Limiting assured delivery to energy from existing resources until the region reaches load/resource balance or until load growth absorbs the existing surplus should provide a good mechanism for protecting the existing surplus. It should also help discourage resource building that is ahead of need. However, economy sales should not be included in these restrictions. It is not apparent that limiting assured delivery to energy from existing resources until the intertie is upgraded is necessary to accomplish the same goals.

Unrestricted access for firm sales from new resources should not even be considered. BPA points out on pages 2-9 of the draft IDU EIS that this option could result in significant development of Pacific Northwest resources for service to California loads. BPA also states that with the maximum intertie upgrade allowing unrestricted access for new baseload resources could lead to the development of an additional 874 aMW of new resources in the Pacific Northwest by 2002, including 510 aMW of new nuclear power. This option is totally unacceptable.

BPA is considering denying access of any kind of sale to any new

hydroelectric resource which would adversely affect the Administrator's efforts on behalf of fish and wildlife. This concept is good in principle. However, some gray areas exist in determinations of adverse effects on behalf of fish and wildlife. BPA should further detail this area to provide utility planners with information concerning size, location, operating characteristics, etc., of hydro resources which could present a problem.

Extraregional utilities should only be allowed access when the capacity of the intertie exceeds the Pacific Northwest supply of surplus energy available for sale to California.

If BPA agrees to additional access for power from extraregional utilities due to that utility's agreement to participate more in the Pacific Northwest's coordinated planning and operation, then the process by which BPA agrees to that additional access should be open to public involvement.

Sincerely,

MASON COUNTY PUD NO. 3
BOARD OF COMMISSIONERS

John H. Whalen, President

Harvey H. Warnaca, Vice President

Robert C. Olsen, Secretary

JHW/HHW/RCO:nb

cc: Terry Esvelt, Area Manager

George and Nancy Blount
12340 Highway 66
Ashland, Oregon 97520

January 13, 1987

Public Involvement Manager, BPA
P.O. Box 12999
Portland, Oregon 97212

RE: Proposed Intertie with California

Dear Manager:

We wish to express our dissatisfaction with the present analysis of the proposed intertie. First of all, the whole idea seems unreasonable in light of the projected energy use in Oregon. It is expected that there will be a shortage of power in Oregon in the near future. Must we guarantee a stifling of our economy by over-exporting one of the most essential factors for economic prosperity?

Secondly, the Environmental Impact Statement is too general to be definitive.

We do hope that much more analysis will be done before we find ourselves having made an irreversible tragic mistake.

Sincerely,

George and Nancy Blount

c: Neil Goldschmidt, Governor

League of Women Voters of Idaho

January 8, 1987

To: Donna L. Geiger, Public Involvement Coordinator, Bonneville Power Administration

From: Judy A. Thomas, President, and Sally M. Gibson, Energy Chairman, League of Women Voters of Idaho

Re: Proposed Intertie Access Policy and Draft Intertie Development and Use Environmental Impact Statement

For more than a decade the League of Women Voters has had a strong position favoring maximum protection of public health and the environment where air quality is concerned. With this in mind, we would hope that BPA would give priority to operating those coal-fired power plants which produce the least sulfur dioxide. Capacity from the much cleaner Colstrip plants should be given preference in export sales over that of the Centralia plants. Current operating patterns must be investigated with an eye to environmentally preferable alternatives. Along these same lines, BPA has a responsibility under the National Environmental Policy Act to investigate using a larger percentage of Northwest exports to displace power plants in the Los Angeles basin which are causing some of the air pollution problems in that area.

The League has supported energy conservation as a national policy since 1975; indeed, conservation is the crux of our energy agenda. We, therefore, are asking that utilities without power plants of their own be allowed to participate in California sales. There ought to be a way for utilities to invest in efficiency improvements and sell the power they save. Conservation must be ensured competition on equal terms with power plants for California revenues.

We do realize that BPA has acknowledged the conservation role in power transfers. We commend BPA for creating economic incentives for Northwest utilities which own power plants to stretch their surpluses by investing in conservation.

Judy A. Thomas
5017 Elizabeth
Pocatello
Idaho 83202

Sally M. Gibson
1507 East Lander
Pocatello
Idaho 83201

SMUD

SACRAMENTO MUNICIPAL UTILITY DISTRICT P. O. Box 15830, Sacramento CA 95852 1830, (916) 452 3211
AN ELECTRIC SYSTEM SERVING THE HEART OF CALIFORNIA

January 15, 1987

PC87-8

Ms. Donna Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999 - ALP
Portland, Oregon 97212

Dear Ms. Geiger:

SUBJECT: LONG TERM INTERTIE ACCESS POLICY

The Sacramento Municipal Utility District submits the enclosed comments on BPA's Long Term Intertie Access Policy. SMUD is aware of the complexity of issues presented by the policy and appreciates BPA's attempts to address the often conflicting interests of all of the parties affected by the policy.

Please send copies of comments submitted by other interested parties when they are received.

Thank you for the opportunity to comment on the LTIAP.

Sincerely,

John P. O'Banion
Power Contracts Division Manager

Enclosure

COMMENTS

OF THE

SACRAMENTO MUNICIPAL UTILITY DISTRICT

ON THE

PROPOSED BPA LONG TERM INTERTIE ACCESS POLICY

Background

The Sacramento Municipal Utility District (SMUD) has a contract right to 200 MW of transmission capacity on the existing Pacific Intertie and will have approximately a 200 MW entitlement from the California-Oregon Transmission Project. SMUD is submitting these comments on BPA's proposed Long Term Intertie Access Policy (LTIAP) to emphasize to BPA the importance of the LTIAP on resource decisions made by SMUD and other utilities in California.

General Comments

SMUD generally agrees with arguments of other California entities that the LTIAP should support, rather than restrict, market based power transactions between utilities. Assuming that BPA believes the LTIAP to be necessary and that the LTIAP is within BPA's statuatory authority, it should be drafted in a way which encourages attempts by California and Northwest utilities to increase efficiency in the use of power resources in both regions. BPA should be aware by now, given the paper storm that its proposed policy has generated, that the LTIAP is capable of giving discouraging signals to those power planners who are in the best position to effect transactions which will benefit both regions over the long term. Those signals are inconsistent with other BPA efforts, like the Firm Displacement rate and Southern California Edison Contract, which exhibit creativity in solving problems associated with long term power arrangements.

Before citing specific concerns with the LTIAP, it should be said that in some respects, the LTIAP indicates more willingness on BPA's part to consider transmission allocations for more types of power arrangements than in previous documents relating to Intertie access. For example, the LTIAP provides for Assured Delivery, under certain circumstances, for Firm Displacement transactions, Canadian Resources, and for capacity/energy and seasonal exchange contracts. Although the conditions attached to granting Assured Delivery for such arrangements are more onerous than they need to be, it is somewhat encourging that the LTIAP at least allows BPA to consider Assured Access for mutually beneficial arrangements when and if they occur.

Seasonal and Capacity/Energy Exchanges

The LTIAP should provide enough information to allow utilities to assume future availability of seasonal and capacity/energy exchanges. As drafted, Section 4 is not very encouraging for exchanges, which is probably contrary to BPA's intent and the long term best interests of both regions. Exchanges are important for justification of Intertie upgrades and can be one of the most complicated and creative resource options available, as is evidenced by the SCE contract. SMUD suggests the following revisions in Section 4:

1) Sections (b)(2) and (b)(3) should be eliminated as conditions, since both are already included and better described in BPA's Power Marketing Program, which is already a condition. For example, "ability to recover revenues" may be interpreted to be much broader than the phrase "to recover adequate revenue to repay the Federal investment in the Federal system...", which is in the definition of Power Marketing Program.

2) The condition that BPA be within a planning horizon of load/resource balance before granting Assured Delivery for exchanges is also probably redundant to the Power Marketing Program condition. The only conceivable reason for BPA to object to exchanges during a time of regional power surplus would be because the cost of the arguably "lost" sale of surplus power to California would have to be borne by the Northwest, thereby affecting BPA revenues. Adequate protection for that interest is already included in the definition of Power Marketing Program. Also, BPA would not have to be in load/resource balance to agree to provide Assured Delivery for exchanges at the time load/resource balance is achieved. The section would be more positive if it stated that BPA will grant Assured Delivery for exchanges which become effective at the time the region is forecasted to be in load/resource balance.

3) As with the section describing Assured Delivery for Canadian Resources, this section should recognize that an exchange may be negotiated in a manner which can provide benefits to BPA beyond those directly associated with the exchange. Such benefits could compensate for any near-term effect on revenues described above.

Assured Delivery for Capacity Contracts

It is SMUD's understanding that Section 3 will be revised to clarify BPA's stated intent to provide Assured Delivery

for capacity contracts. Since capacity only contracts commonly require return of energy off-peak, there is potential for conflict between Sections 3 and 4.

The use of Exhibit B to define the parameters of Assured Delivery for capacity contracts is also confusing. Under Section E(1)(a), Exhibit B reflects the utility's firm energy surplus. For a capacity sale, only capacity surplus should be necessary. Either Exhibit B should reflect firm capacity surplus as well as firm energy surplus or reference to Exhibit B should be eliminated.

Assured Delivery Considerations

Section 2 lists criteria which will be used by BPA to determine whether any particular power sale is a firm power sale for purposes of granting Assured Delivery. In previous comments, SMUD has objected to provisions of the policy which would have fixed the definition of a firm power sale and thus limited BPA's flexibility to consider firm power sales which do not precisely match the definition. The proposed method is an improvement over earlier versions. The trade offs however, is a degree of uncertainty which will be resolved only when BPA begins implementing the LTIAP by executing contracts for Assured Delivery. SMUD hopes and expects that the criteria will be applied fairly. In the meantime, it would be helpful to more fully explain the interests which BPA is seeking to protect in each of the elements listed.

Conclusion

The LTIAP reserves a great amount of discretion for BPA in allocating transmission access on the Intertie which, in turn, creates a great amount of uncertainty in the minds of utility resource planners attempting to make long term resource decisions. The current draft appears to be an improvement over previous proposals, perhaps reflecting increased BPA experience in attempting to deal with the California market. SMUD hopes that the final LTIAP will recognize that unreasonable restrictions on access to transmission do not result in the best allocation of power resources over the long term.

#101

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SNAKE RIVER
HYDRO POWER

IDAHO POWER COMPANY

BOX 70 BOISE, IDAHO 83707

JOSEPH W MARSHALL
Vice President
Planning
Resources and Rates

January 15, 1987

Mr Jim Jura, Administrator
Bonneville Power Administration
P O Box 3621
1002 NE Holladay Street
Portland, OR 97208

Re: Proposed Long-Term
Intertie Access Policy

Dear Mr Jura:

This letter comprises Idaho Power Company's ("Idaho Power") comments to the Bonneville Power Administration's ("BPA") on its Proposed Long-Term Intertie Access Policy ("Access Policy"), dated October 1986, with comments due Friday, January 16, 1987. Idaho Power has previously submitted written comments regarding BPA's Near-Term, Revised Near-Term and Draft Long-Term Intertie Access Policy. Attached hereto are those previous comments. Idaho Power would request that BPA once again consider said comments in formulating its Long-Term Intertie Access Policy and include them in its Record of Decision on said Policy.

To begin with, Idaho Power agrees with and applauds BPA's shift from requiring resources specific sales to allowing system sales. However, Idaho Power still has some serious reservations regarding BPA's Access Policy. In order of priority, they are as follows:

1. BPA's continued insistence on use of the Access Policy as a means of implementing its Fish and Wildlife obligations under the Regional Power Act,

2. The exclusion of PURPA resources in calculating a Scheduling Utility's Assured Delivery as set forth in Exhibit B,

3. BPA's method of calculating Assured Deliveries under the Access Policy for Idaho Power, and

4. The opinion that BPA is exceeding its authority in developing and implementing the Access Policy.

1. Fish and Wildlife. Idaho Power has consistently objected in the past and continues to object to BPA's use of the Access Policy to implement those Fish and Wildlife obligations it incurred under the Regional Power Act. Without restating in any detail a discussion of the Company's position on this issue, attached hereto are the comments Idaho Power previously made to BPA during the various stages of development of the Access Policy. Please consider once again those comments Idaho Power has previously made regarding this issue. In addition, Idaho Power fully supports and endorses those comments made by the Pacific Northwest Utilities Conference Committee regarding the Fish and Wildlife provisions of the Access Policy.

2. PURPA Resources. It appears that BPA is excluding PURPA resources in calculating a Scheduling Utility's Assured Delivery in the Access Policy. For a federal agency to so act is both inappropriate and inconsistent with the federal PURPA legislation which mandates utility acquisition of PURPA resources. Would you please clarify for Idaho Power the role, if any, PURPA resources play in calculating a Scheduling Utility's Assured Delivery and the reasons BPA proposes to deny consideration of PURPA resources in calculating Assured Delivery. It is not sufficient for BPA to state that such resources are simply increasing the region's surplus and as a result competition for Intertie Access.

3. Method of Calculating Assured Deliveries. As you are aware, Idaho Power plans its resources based on median water. In the past Idaho Power has objected to BPA's inssistence that Idaho's Assured Deliveries be calculated based on critical water. Those objections remain and Idaho Power would request that BPA reconsider its decision to require that Idaho's Assured Delivery calculation be based on critical water. In addition, recently the Idaho Public Utilities Commission refused to rate base Idaho Power's Valmy Unit No 2 because it was not needed to serve load. As a result of that action, Idaho Power would suggest that its Assured Delivery amount be increased from 78 megawatts to 125 megawatts. 125 megawatts represents Idaho Power's share of Valmy Unit No 2.

4. BPA Has Exceeded It's Authority. Early on during the Intertie Access Policy process, Idaho Power submitted detailed written comments regarding the intent of the Regional Power Act with respect to transmission access. Idaho Power would once again renew those comments and request that BPA reconsider implementing the Access Policy since BPA is exceeding its authority/discretion under the Regional Power Act in so doing.

Idaho Power appreciates the opportunity to comment on BPA's Access Policy and looks forward to BPA's reconsideration and response to these comments.

Very truly yours,

J W Marshall

JWM:jar
Attachments

1/6
Long term
IAP

Attachment
TE-1-102

SNAKE RIVER
HYDRO POWER

IDAHO POWER COMPANY

BOX 70 BOISE, IDAHO 83707

April 4, 1986

DE BARCLAY
Senior Vice President

Ms Donna Geiger
Public Involvement Manager
Bonneville Power Administration
1002 Northwest Holladay
Portland, Oregon 97297

Re: Intertie Access Policy

Dear Ms Geiger:

Idaho Power Company (Idaho Power) submits this letter in comment to the Bonneville Power Administration's (BPA) March 11, 1986, letter and discussion paper of major issues in the development of the draft Long-term Intertie Access Policy (IAP)., Idaho Power has previously submitted comments on the Near-term and Revised Near-term IAP and attaches those previous comments to these comments for inclusion into the Long-term IAP record. There remain five major issues in the Near-term IAP in which Idaho Power is very much concerned. Our concern has been expressed in our previous comments. The major issues yet unresolved to Idaho Power's satisfaction relate to:

1. Operation of existing non-federal hydro projects;
2. New non-federal hydro development;
3. Use of the IAP to protect BPA's fishery investment;
4. Reasonableness of the presumption that existing resources are being operated in a manner that is consistent with applicable licenses, permits and laws; and
5. The appropriateness of the specified resources requirement for Assured Delivery.

The major issues BPA has identified in the discussion paper that are of primary concern to Idaho Power under the Long-term IAP are:

1. Balancing intertie use between assured delivery and non-firm access;
2. Assured delivery;
3. BPA's fish and wildlife role; and
4. Intertie Access for Canadian Power.

1. Balancing Intertie Use between Assured Delivery and Non-firm Access

The Near-term IAP protects the Exportable Agreement and other non-firm uses by limiting the Assured Delivery to levels of annual average firm energy surpluses. BPA proposes to adopt the basic provisions of the Exportable Agreement into the Long-term IAP. Although the method of calculating the limits of Assured Delivery are objectionable, Idaho Power would support adoption of the basic provisions of the Exportable Agreement by BPA. The Exportable Agreement and its allocation method has proven to be workable and fair in most cases.

2. Assured Delivery

Idaho Power plans on median water and fails to recognize the distinction attempted by BPA in the Near-term IAP in its calculation of Idaho Power's Exhibit B Firm Surplus. Idaho Power is not a member of the Northwest Coordination Agreement, and median water planning by Idaho Power has proven to be an appropriate basis for planning for Idaho Power and has permitted utilization of diversification between summer and winter peaks within the region. Idaho Power believes it is inappropriate for BPA to dictate planning criteria through the ruse of the IAP. Idaho Power does believe it would be appropriate for BPA to calculate Idaho Power's Exhibit B Firm Surplus by using Idaho Power's median water planning. BPA's discussion of using critical water planning for all utilities in the calculation of the annual average firm surplus in the Record of Decision for the Near-term IAP was unpersuasive. See specific Idaho Power comments on the critical/median planning issue in comments on the revised Near-term IPA, pages 5 through 8.

Providing a stricter standard under the IAP for new hydro resources is contrary to the Northwest Power Act and PURPA. Cogeneration and small power production (CSPP) resources which Idaho Power must purchase should be included in the calculation of Idaho Power's Exhibit B Firm Surplus. There is no rational distinction between existing resources and mandated CSPP resources when allowing access to the Intertie.

Furthermore, in its April 11, 1986, letter to Idaho Power, BPA indicated its comments on the appropriateness of the specified resource requirement for assured delivery would require a policy decision and would be addressed in the Near-term IAP. Idaho Power's review of the Near-term IAP and Record of Decision fails to identify where the appropriateness of the specified resource requirement for Assured Delivery was analyzed, evaluated or discussed. Idaho Power believes that intertie allocations should be based upon system surpluses and not on a specified resource requirement. This would allow greater flexibility and more opportunity to make sales over the Intertie.

3. BPA's Fish and Wildlife Role

Idaho Power has previously stated it believes the use of the IAP to further BPA's fishery effort is an unnecessary and unauthorized layer of regulation. The policy to condition or deny access for resources that may adversely affect the Administrator's efforts on behalf of fish and wildlife is not justified. Idaho Power is not persuaded by BPA's attempted justification of this condition through reading this alleged authority in pari materia with BPA's other organic authorities. See attached comments on Near-term IAP, pages 2 through 8. The Long-term IAP should not condition access to Intertie capacity on a fish and wildlife basis.

A. IAP and the Operation of Existing Non-federal Hydro Projects

Provisions of the Long-term IAP will not prevent existing non-federal hydro projects from operating in a manner adversely affecting fish and wildlife. First of all, BPA has no authority to interject fish and wildlife regulation into the IAP. Second, resource operations are adequately regulated by FERC, and FERC should remain the exclusive regulatory body for this purpose. BPA does not have the authority to place additional "regulatory" requirements on resource operations as a condition for Intertie access.

Idaho Power believes that there should be flexibility provided to allow the Assured Delivery to be shaped differently. Idaho Power is analyzing shaping arrangements which would increase the efficiency and use of its generation resources. Again, Assured Delivery should be based upon system surpluses and not on a specified resource requirement.

B. IAP and New Non-federal Hydro Development

Marketing opportunities created by the Long-term IAP will not necessarily provide an incentive for construction of new hydro resources which would aversely impact fish and wildlife. The IAP should not contain provisions to deter such construction. Again, this assumes BPA's authority to impose fish and wildlife provisions through the IAP. There are numerous and adequate protections for fish and wildlife under other laws. As such, the IAP is not an appropriate mechanism for addressing potential impacts for new construction projects. Idaho Power believes such efforts would be contrary to law.

C. Is IAP a Good Way to Protect BPA's Fish Investment?

BPA has no statutory authority to use the IAP as a means of protecting its fish and wildlife investment. The language "adversely affecting the Administrator's efforts on behalf of fish and wildlife", although somewhat more tempered than was originally proposed in the Near-term IAP process, is still subject to various interpretations and provides no guidance for Idaho Power in determining whether its hydro operations are in compliance with the conditions of the IAP in order to allow continued access to the Intertie. Idaho Power has sought a pre-determination of whether the operation of its hydro facilities would not adversely affect the Administrator's efforts on behalf of fish and wildlife, and to date, BPA has refused to provide such determination. Idaho Power again seeks a determination of this issue for its resources listed in the attached comments.

D. Is the Rebuttable Presumption Reasonable

Idaho Power believes the presumption that Existing Pacific Northwest Resources are being operated consistent with applicable licenses, permits or other provisions of state and federal law, and that they do not adversely affect the Administrator's fish and wildlife responsibilities is appropriate and should be continued. Idaho Power concurs with this approach but does not accept BPA's authority to impose fish and wildlife provisions as a condition of access. This is and should remain the sole province of the FERC.

Idaho Power is still concerned with any direct or indirect attempts by BPA to condition Idaho Power Intertie access to Idaho Power's participation in the Water Budget. Idaho Power believes the decision that repayment in kind for participation in the Water Budget is not conditioned by access to the Intertie must remain BPA's position. Idaho Power has just submitted its revisions to BPA's proposed repayment in kind contract for Idaho Power's participation in the Water Budget for the 1986 season. It is hopeful BPA will accept Idaho Power's revisions and conditions for participation, and that repayment continues to remain outside of conditions for Idaho Power's access to the intertie.

4. Intertie Access for Canadian Power

Idaho Power recently submitted a letter to Mr Chester A Johnson expressing Idaho Power's interest in the Peace River Site C Hydro Project. Idaho Power is interested in the present proposal to form various task forces to review the technical, financial and legal issues associated with the sale of electricity from the Peace River Site C Project to the Northwest and Southwest, and Idaho Power requested participation in those efforts. Before there are any arrangements which would provide Canadian access in return for storage in Canada, task forces should be established to review the technical, financial and legal issues associated with such arrangements.

The issue of firm access for Canadian resources not only raises questions for BPA, it raises questions for utilities in the Northwest. Idaho Power agrees with BPA that BPA is not obligated to provide transmission for Site C regardless of the impact on BPA or Northwest ratepayers. The completion of additional Intertie capacity together with necessary supporting capacity in BPA's main grid and at the Canadian-U S border is a condition precedent to consideration of firm Intertie transmission for Canadian resources. These issues and others can be addressed through the various task forces which Idaho Power has indicated an interest to be a part of. The adoption of any policy on Canadian firm access would require extensive study before its adoption.

Numerous other issues have been raised by the discussion paper which are very detailed and complex. Idaho Power reserves the right to submit comments on these remaining issues and on the Long-term IAP during its development. Idaho Power appreciates the opportunity to comment and expects BPA to give due consideration to these comments.

Sincerely,

D F Barclay

DEB:slp

cc: Peter Johnson
Jim Jones

Attachment
TIE-1-102

COMMENTS OF IDAHO POWER COMPANY
ON BPA'S NEAR TERM INTERTIE ACCESS POLICY

The stated reason for including fish and wildlife provisions in the Near Term Intertie Access Policy (the "Intertie Policy") is to ensure that said Policy does not enable or encourage a method of operating existing resources or those under construction or the construction of new resources which would "... substantially decrease the effectiveness of or substantially increase the need for expenditures or other actions by the Administrator to protect, mitigate and enhance fish and wildlife and otherwise substantially interfere with the Administrator's obligation to protect, mitigate or enhance fish and wildlife ...". Idaho Power Company (the "Company") submits that the inclusion of fish and wildlife provisions in the Intertie Policy is both legally improper and unworkable because the language in the Policy is subject to various interpretations making application of the Intertie Policy discretionary.

The Intertie Policy covers both the operation of existing resources and the construction of new resources. Let us first analyze the application of said Policy to the operation of existing resources.

1. Exiting Resources

The Intertie Policy presumes that existing resources which are "... operated in a manner consistent with applicable permits, licenses and other provisions of applicable state or Federal law ..." do not negatively impact the Bonneville Power Administration's ("BPA") Fish and Wildlife Program (the "BPA Fish and Wildlife Program"). However, if it is shown that such operation does negatively impact the BPA Fish and Wildlife Program, then the Administrator is to determine if said impact is "substantial" as defined in Section C(b)(e) of the Intertie Policy. If the negative impact is determined to be substantial, then that utility, before it is permitted access to the intertie must either a) modify its operation to avoid the negative impact, or b) arrange for a comparable expenditure, or take appropriate action(s) to mitigate the negative impact.

a) In order to fully assess the Intertie Policy, it is necessary to determine exactly what the BPA Fish and Wildlife Program is. Certainly BPA has not endorsed, in total, the Northwest Power Planning Council's ("Council") Columbia River Basin Fish and Wildlife Program (the "Council Fish and Wildlife Program") adopted pursuant to the Pacific Northwest Electric Power Planning and Conservation Act ("Regional Power Act" or "Act"), nor has the Company even seen a written copy of BPA's Fish and Wildlife Program. PLEASE SEND THE COMPANY A COPY OF THE BPA FISH AND WILDLIFE PROGRAM. Without having a copy of the BPA Fish and Wildlife Program, the Company cannot fully assess the risks associated with the Intertie Policy.

b) The effect of the Intertie Policy is to add another layer of regulation to that presently existing. The problem is this additional layer of regulation is unauthorized. The Company has licensed all of its present hydroelectric generating facilities through the Federal Energy Regulatory Commission (the "FERC") (or its predecessor, the Federal Power Commission) and operates those facilities in accordance with the terms of the appropriate license. Tying intertie access to the operation of FERC licensed facilities in a manner consistent with the BPA Fish and Wildlife Program is tantamount to retroactive regulation by an agency without any authority to regulate the construction or operation of hydroelectric generating facilities. The Company licensed its facilities in accordance with the applicable law and regulations,

which gave the FERC or its predecessor, the Federal Power Commission, the sole authority to license the construction and operation of hydroelectric facilities. Those agencies were required by law to take into consideration the fish and wildlife aspects of each project. Prior to passage of the Regional Power Act, BPA did not have the authority to impose operating conditions on hydroelectric resources, nor did BPA attempt to. There is no authority in the Regional Power Act that would permit the BPA or its Administrator to impose certain operating parameters on Company facilities at this time.

BPA's proposed Intertie Policy fails to recognize one basic tenet of the Regional Power Act. The drafters of the Regional Power Act feared that some Federal agencies would use the Act to usurp the authority or change the decisions of other Federal agencies. This concern covered both the energy planning aspect of the Act as well as the fish and wildlife portion of the Act. For example, from the energy side of the Act, subsection (a) of Section 10 protects the rights of the states or their political subdivisions to set electric retail rates, develop construction and resource plans and make energy siting decisions. From the fish and wildlife side of the Act, subsection (i) of Section 10 protects the validity of existing licenses. It provides as follows:

> "(i) Nothing in this Act shall be construed to affect the validity of any existing license, permit, or certificate issued by any Federal agency pursuant to any other Federal law."

Senator McClure, the Senior Senator from the State of Idaho and current Chairman of the Senate Energy Committee, made the following statement regarding Section 10(i) of the Regional Power Act which is set forth on Page 14696 of the Congressional Record, Volume 126, No 162, dated Wednesday, November 19, 1980:

> "I would like to turn now to several important provisions in the House-passed legislation for purposes of developing the Senate understanding of the provisions as legislative history. One of several amendments adopted on the House floor which were offered by my distinguished colleague from Idaho (Mr. Symms) adds a new subsection (i) to section 10 of the bill. That subsection is a savings clause stating that:
>
> > Nothing in this act shall be construed to affect the validity of any existing licenses, permits, or certificates issued by any Federal agency pursuant to any other Federal law.
>
> It is important to recognize that this savings clause will insure that nothing in this act can or shall be construed to require any Federal agency to modify the terms and conditions of any valid existing Federal license, permit, or certificate. Also, no Federal agency shall have any express or implied authority pursuant to this act or, in any connection between this act and any other laws, to make any such modification of a valid existing Federal license, permit, or certificate.
>
> As a result, a Federal agency cannot cite any provision of this bill as the legal basis for proposing or imposing such a modification in any pending proceedings or any future proceedings related to such existing licenses, permits, and certificates. For example, the legal effect of this savings clause would be to prevent any effort under paragraph 4(h)(11) of the bill to impose such modifications and the regulation of non-Federal parties, specifically including regulation by the Federal Energy Regulatory Commission under the Federal Power Act, and other laws applicable to the operation of non-Federal hydroelectric projects and regulation by other agencies of any other facilities which may be subject to this bill.
>
> Consequently, no Federal agency may use the authority in this bill to affect or modify the terms and conditions of licenses, permits or certificates, nor to affect any existing water rights, power rights, or other contract rights which may exist under such terms and conditions for a specific project.

Later, Senator McClure engaged the late Senator Jackson from Washington, then Chairman of the Senate Energy Committee, in a brief colloquy on the Senate's understanding of Section 10(i) of the Regional Power Act. It is contained on Page 14698 of the Congressional Record, Volume 126, No 162, dated Wednesday, November 19, 1980:

Subsection 10(i) of the House amendment states that nothing in this act shall be construed to affect the validity of any existing licenses, permits, or certificates issued by any Federal agency pursuant to any other Federal law.

Would the Senator agree that this subsection will insure that nothing in this act can or shall be construed to require any Federal agency to modify the terms or conditions of any valid existing Federal license, permit, or certificate?

Mr JACKSON. I agree completely and, in fact, no Federal agency shall have any express or implied authority under this act or in any connection between this act and any other law to make any such modification of a valid existing Federal license, permits or certificate.

Mr McCLURE. Would the Senator agree that, as a result, a Federal agency cannot cite any provision of this bill as the legal basis for proposing or imposing such a modification in any pending proceedings or any future proceedings relating to such existing licenses, permits, or certificates?

Mr JACKSON. Yes, I agree completely. For example, the legal effect of this savings clause would be to prevent any effort under paragraph 4(h)(11) of the bill to impose such modifications in the regulation of non-Federal parties, specifically including regulation by the Federal Energy Regulatory Commission under the Federal Power Act and any other laws applicable to the operation of non-Federal hydroelectric projects or other related facilities.

Mr McCLURE. Would the Senator also agree consequently that no Federal agency may use any authorities in this bill to affect or modify the terms and conditions of such licenses, permits or certificates nor to affect any existing water rights, power rights, or other contract rights which may exist under such terms and conditions?

Mr JACKSON. Again, I agree completely with that conclusion as a matter of law under this bill.

The clear intent was to insure that no Federal agency (not just the FERC) used the authority of the Regional Power Act to propose or impose, directly or indirectly, modifications of existing licenses. The Intertie Policy does just that and runs counter to the Act. The Intertie Policy is an attempt by a Federal agency to modify the Company's existing FERC hydroelectric

licenses by tying intertie access to operation in a manner consistent with the BPA Fish and Wildlife Program.

It could be contended that BPA is not trying to modify any existing Federal license. However if a utility wants access to the intertie, the effect could be to require a utility to operate its FERC licensed projects in a manner inconsistent with the terms of its FERC license. It would not be a formal modification in that there is no formal proceeding, and it is not approved by the FERC. But the result could be an actual operating modification. BPA could state that it is optional and not mandatory; that the Company has a choice. The point is, it is a choice the Company did not have to make before and one which the drafters of the Act intended to specifically exclude from the Act. The Company believes that this proposed Intertie Policy provides that BPA can exercise that discretion with regard to intertie access in a manner inconsistent with the law. That the BPA Fish and Wildlife Program overrides the operating terms of FERC issued licenses. There is nothing in the Regional Power Act that even remotely contemplates such a result.

c) The Company has a three-dam complex located in the Hells Canyon area of the Middle Snake River consisting of (from upstream to downstream) Brownlee, Oxbow and Hells Canyon Dams. In 1955, the Company received a license from the Federal Power Commission (now the FERC) authorizing construction of this three-dam complex. This license is referred to as the Project 1971 License. Article 35 of the Project 1971 License required the company to construct, maintain and operate facilities for the purpose of conserving the fishery resources of the Middle Snake River. From late 1955 to the early 1970's, the Company constructed facilities for the purpose of conserving these fishery resources.

In the early 1970's, the affected state and federal fish and wildlife agencies requested that the Company provide more fish facilities under Article 35 of the Project 1971 License. An attempt to negotiate a settlement of this request was unsuccessful. In February of 1976, the fishery agencies filed a petition with the Federal Power Commission requesting a Declaratory Order requiring the Company to carry into effect Article 35 of the Project 1971 License and other orders of the Commission relating to fishery facilities and fishery resource problems at said project. While the Company was committed to fulfilling its obligations under Article 35 of the Project 1971 License and felt it had done so, it also felt it was time to finally settle the open-ended language in that article since it permitted the Federal Power Commission on its own motion, the Federal Government through the Secretary of the Interior and the governments of the States of Idaho and Oregon through their respective conservation agencies to seek modifications in the Project 1971 structures, including fish facilities and the Project operation at any time during the full 50-year term of the license.

The petition for a Declaratory Order filed with the Federal Power Commission by the fishery agencies resulted in hearings before the FERC after which the Company and the fishery agencies negotiated and executed a Settlement Agreement ("Settlement Agreement") dated the 14th day of February, 1980. Parties to this Settlement Agreement included the National Marine Fisheries Service, the State of Idaho through the Idaho Fish and Game Department, the State of Oregon through the Oregon Department of Fish and Wildlife, and the State of Washington through the Washington Department of Fisheries and the Washington Department of Game.

Paragraph II of the Settlement Agreement provides:

> "Idaho, Oregon and Washington agree that the numbers of fish herein agreed upon constitute full and complete mitigation for all numerical losses of salmon and steelhead caused by or in any way associated with the construction of, and operation within the existing license for, Project 1971. Idaho, Oregon and Washington further agree not to contend or support contentions by others before any agency or in any proceeding that additional fish or fish facilities are required by or in any way associated with the construction of, or operation within the existing license for, Project 1971."

On February 26, 1980, the FERC issued an order approving the Settlement Agreement. Between the License for Project 1971 and the Settlement Agreement, the Company has finally settled all obligations with respect to the full and complete mitigation for all numerical losses of salmon or steelhead caused by or in any way associated with construction and operation of the Hells Canyon complex under the terms of the Project 1971 License and the Settlement Agreement.

In November of 1982, the Council adopted the Council Fish and Wildlife Program. Included in the Council Fish and Wildlife Program was the Water Budget which is an attempt to increase the survival of smolts migrating to the ocean by providing additional volumes of water during the peak migration period. There are two components to the Water Budget--a Columbia River portion and a Snake River portion. On the Snake River, the Water Budget calls for 20,000 cfs months to be provided between April 15 and June 15 from the U S Army Corps of Engineers' Dworshak Reservoir and the Company's Brownlee Reservoir. The Company has agreed to participate in the Water Budget as long as it is made whole. Since adoption of the Council Fish and Wildlife Program, Company representatives have been working together with the Water Budget Managers, Corps of Engineers, Bureau of Reclamation and BPA in an effort to work out an

acceptable plan for implementing the Water Budget on the Snake River as well as working with BPA on an agreement to compensate the Company by replacing "in kind" the power generation lost as the result of the Company releasing water from Brownlee Reservoir to help satisfy the Water Budget.

The Intertie Policy presumes that the Company is operating the Hells Canyon Complex "... in a manner consistent with applicable permits, licenses and other provisions of applicable state or Federal law ...". However, the Intertie Policy would permit BPA to refuse the Company access to the intertie anytime before or during the Water Budget period (April 15 through June 15) if BPA determines that such access would result in either in the event Brownlee is full, a lowering of the water level at Brownlee Reservoir, or in the event Brownlee is below full, no increase in the water level at Brownlee Reservoir. The Company recognizes that implementation of the Water Budget is a cost to BPA in the form of a revenue loss ($58 million in an average water year). We do not know whether this figure includes the cost of "in kind" replacement energy to the Company lost as the result of water releases from Brownlee Reservoir to help satisfy Water Budget.

The Company's resources can be divided into three kinds, one of which has several components. First there is thermal generation which in the case of the Company is limited to coal-fired generation. Second is hydroelectric generation. The Company has two types of hydroelectric generating resources--run of the river plants and plants with storage reservoirs. Third is a 50 MW combustion turbine. With the exception of the run of the river plants and the combustion turbine, any Company resource or combination thereof which was offered for sale to California necessitating access to BPA lines could arguably be impacted by the fish and wildlife provisions of the Intertie Policy.

Whether it be a thermal resource, a hydro resource with storage facilities or a combination of both, BPA could make an argument that it would "increase the need for additional expenditures" or impair the effectiveness of BPA's Fish and Wildlife Program. The Company's main concern is the operation of the Hells Canyon Complex. Since the Company has voluntarily agreed to participate in the Water Budget, and because the Company does not have a copy of the BPA Fish and Wildlife Program, the Company has analyzed application of the Intertie Policy to Water Budget releases from Brownlee Reservoir.

The Company could lose operational control of the system during certain parts of the year. If that is the result or potential result of involvement in the Council Fish and Wildlife Program or the BPA Fish and Wildlife Program, then the Company will have to choose not to be involved. It would seem that the Company is in a much better position to argue that its operation of the Hells Canyon Complex would not impair the BPA Fish and Wildlife Program if the Company is not participating in said Program.

As the Company has publicly stated and as recognized in the Council Fish and Wildlife Program, Company participation in the Water Budget is not mandatory. Section 304(a)(5) of the Council's Fish and Wildlife Program provides as follows:

> (5) To allocate non-power impacts equitably between Dworshak and Brownlee reservoirs, some spill at Dworshak may be necessary. It is expected that Idaho Power Company will experience power losses as a result of operating Brownlee Reservoir for the purpose of supplying the Water Budget. Idaho Power Company maintains that, through its settlement agreement and FERC license, it has compensated for all adverse effects of its projects on fish. The Council does not express an opinion on this question. Nevertheless, the Council believes that Idaho Power Company's participation in the Water Budget on the Snake River will help significantly in providing systemwide flows for downstream migration. If Idaho Power Company experiences a power loss as a result of participating in the Water Budget, and

> it is determined that the need for water from Brownlee Reservoir is not attributable to the development and operation of Idaho Power Company's Hells Canyon Complex, Bonneville shall replace the loss in kind [see Section 1304(a)(4)].

Since BPA has publicly stated and offered the Company a contract to replace "in kind" the generation lost as the result of water releases from Brownlee to satisfy the Water Budget, BPA has apparently made a determination that "... the need for water from Brownlee Reservoir is not attributable to the development and operation of Idaho Power's Hells Canyon Complex ...". The FERC has not acted to supplement licenses to implement the Council Fish and Wildlife Program pursuant to Section 1304(a)(4) of said Program which provides as follows:

> "(4) Section 1304(a)(1) and (2) shall be interpreted to mean that the FERC shall initiate proceedings by January 15, 1983 to supplement license conditions or to take other actions as necessary to implement the Council's program."

This is consistent with BPA's apparent decision to compensate the Company in kind for energy lost as the result of water releases from Brownlee to satisfy the Water Budget pursuant to Section 4(h)(10)(A) of the Regional Power Act as opposed to Section 4(h)(11)(A)(ii). Section 4(h)(11)(A)(ii) of the Act requires some "imposition" by a Federal agency before the BPA is obligated to bear the resulting monetary costs and power losses at non-federal facilities.

What is puzzling is that BPA's agreement to compensate the Company by replacing "in kind" energy lost as the result of water releases from Brownlee to help satisfy the Water Budget runs contrary to the fish and wildlife provisions of the Intertie Policy. On the one hand (agreement to compensate the Company), BPA is acknowledging that it cannot tell the Company how to operate its projects and that any request by BPA to operate such projects in a manner to aid the Water Budget (which is apparently part of the BPA Fish and Wildlife Program) and which results in lost energy, would obligate BPA to compensate the

Company "in kind" for said energy losses. On the other hand (Intertie Policy tied to compliance with the BPA Fish and Wildlife Program), BPA is telling the Company that, under certain conditions, access to the Intertie is tied to compliance with the BPA Fish and Wildlife Program. It is inconsistent. BPA's agreement to compensate the Company under Section 4(h)(10)(A) of the Regional Power Act properly recognizes the Council's Fish and Wildlife Program (Section 304(a)(5)) as well as the authorized roll of BPA and the FERC in implementing the Council's Fish and Wildlife Program. BPA's agreement to compensate the Company acknowledges that BPA is not the Federal agency with authority to impose on non-Federal projects "... measures to protect, mitigate and enhance fish and wildlife which are not attributable to the development and operation of such projects" (Section 4(h)(11)(A)(ii) of the Regional Power Act. How then can BPA under the Intertie Policy impose on the Company's operation of its Hells Canyon Complex, or any other hydroelectric facility, operating parameters consistent with the BPA Fish and Wildlife Program which would be inconsistent with the operating terms of the FERC license?

The fish and wildlife provisions of the Intertie Policy are so vague that the Company cannot tell how it will be applied to the operation of its existing facilities. If Company participation in the Water Budget could result in application of the Intertie Policy to the operation of those facilities when it seeks access to the intertie, the Company might have to consider withdrawing from Water Budget participation.

d) Another example where the fish and wildlife provisions of the Intertie Policy might affect the operation of existing Company facilities is under Section 1004(b) of the Council Fish and Wildlife Program. The Company assumes that the BPA Fish and Wildlife Program has incorporated Section 1004(b)

of the Council Fish and Wildlife Program. Section 1004(b) calls for BPA to fund wildlife status mitigation reports on all hydroelectric generating facilities in the Region. From those status mitigation reports, a mitigation plan will be developed. Under the recent amendments to the Council Fish and Wildlife Program, it appears that the BPA has the option of refusing to fund wildlife mitigation plans at non-Federal hydroelectric generating projects. Could BPA refuse the Company access to the intertie for any Company hydroelectric resource where the Company refused or rejected, in whole or in part, a wildlife mitigation plan? It would seem that BPA can argue that by funding wildlife status reports, the failure of the Company to fund the mitigation plans has impaired the effectiveness of the BPA Fish and Wildlife Program. Yet is the mitigation plan at non-Federal facilities part of the BPA Fish and Wildlife Program? Arguably, it is not since BPA is not funding it.

Is this the intent of BPA's Fish and Wildlife Program? As in the case of the Hells Canyon Complex Water Budget involvement, if BPA intends to tie intertie access to the 1004(b) portion of the BPA Fish and Wildlife Program, may be the Company should consider no involvement at all. That way, BPA does not expend funds and there are not mitigation status reports from which to develop mitigation plans. In otherwords, there would be no 1004(b) process for Company hydroelectric facilities. In fact, this is consistent with the intent of the drafters of the Regional Power Act. Senator McClure made the following statement regarding the wildlife provisions of the Regional Power Act which is set forth on page 14696 of the Congressional Records, Volume 126, No 162, dated Wednesday, November 19, 1980:

> Additionally, significant focus of the House consideration of this bill was on the fisheries issue. Very little attention, however, was paid to the details of a wildlife portion of the

> new program established under this bill. It is the Senate's understanding that the primary focus of the new program will be on fisheries protection, enhancement and mitigation and not on any major new initiatives regarding wildlife in the geographic area surrounding hydroelectric projects in the region. Consequently, the Administrator and the region council in implementing their respective responsibilities and authorities under this bill should place a primary, if not exclusive, focus on the fisheries aspects of the protection, enhancement, and mitigation provisions in the bill.

2. Development of New Resources

The Intertie Policy provides that "Access to the Intertie will not be provided for power from resources not yet licensed or constructed, which would negatively impact BPA's fish and wildlife expenditures and other actions ...".

This portion of the fish and wildlife provisions of BPA's Intertie Policy put BPA in a position of, to some degree, controlling resource development in the region. This runs counter not only to the Regional Power Act but also the Public Utility Regulatory Policy Act ("PURPA").

a) PURPA requires the Company to acquire energy generated from privately owned small hydroelectric projects. As the Company is required in licensing its hydroelectric facilities, small hydro developments must receive a license from the FERC. Once that license is granted or an exemption has been given and the project is developed, the Company has no choice but to acquire the energy at a rate established by the Idaho Public Utilities Commission. This energy is then brought into the system without any ability to dispatch or schedule said energy. It comes into the Company's system before the Company's own generation. If power from these resources are inconsistent with the BPA Fish and Wildlife Program, the Intertie Policy would permit BPA to deny access to the intertie for the sale of any of this energy to California. BPA is again putting itself in a position of regulating resources which have been and can

only be regulated from a construction and operation standpoint by the FERC. BPA is attempting to control the operation of PURPA resources which the Company has no control over.

b) Regional Power Act

The specific issue of intertie access, among others, is dealt with in subsection (d) of Section 9 of the Regional Power Act and provides as follows:

> (d) No restrictions contained in subsection (c) shall limit or interfere with the sale, exchange or other disposition of any power by any utility or group thereof from any existing or new non-Federal resource if such sale, exchange or disposition does not increase the amount of firm power the Administrator would be obligated to provide to any customer. In addition to the directives contained in subsections (i)(1)(B) and (i)(3) and subject to:
>
> (1) any contractual obligations of the Administrator,
>
> (2) any other obligations under existing law, and
>
> (3) the availability of capacity in the Federal transmission system,
>
> the Administrator shall provide transmission access, load factoring, storage and other services normally attendant thereto to such utilities and shall not discriminate against any utility or group thereof on the basis of independent development of such resource in providing such services.

The limitations in subsection (c) of Section 9 permits the BPA to deny intertie access or other services for the sale of electric power outside the region if it is needed to meet load within the region.

The legislative history on this section from the Committee on Interior and Insular Affairs, 96th Congress, 2d Session, Rept 96-976, Part II, Page 55, provides as follows:

> Section 9(d) serves two purposes. First, it clarifies that utilities (unlike BPA) are free to dispose of their own non-Federal power (both firm and non-firm) so long as they do not thereby increase BPA's firm power obligations. Second, the subsection requires BPA to provide available services and facilities to such utilities for such sales, and prohibits BPA from discriminating in the provision of such services against any utility or group thereof on the basis of their independent development of resources. Both parts of this subsection therefore preserve the individual and collective independence of utilities and groups of utilities, as well as reaffirming the requirement contained in section 6 of the Federal Columbia River Transmission System Act that BPA make available on a fair and non-discriminatory basis Federal transmission system capacity in excess of the capacity required for power generated or acquired by the United States.

The clear intent of Section 9(d) is to permit non-Federal utilities access to the intertie as long as it does not interfere with BPA's own marketing program or as provided in Section 9(i)(1)(B) is not in conflict with the policies of this act. Apparently, BPA believes that the fish and wildlife provisions of the Act which resulted in the Council Fish and Wildlife Program and consequently the BPA Fish and Wildlife Program is the overriding policy of the Regional Power Act. That is incorrect. In fact, it is inconsistent with other stated policies of the Act, i e, protecting the right to operate under existing licenses (Section 10(i)) and ensuring with respect to intertie access that BPA does " ...not discriminate against any utility or group thereof on the basis of independent development of such resource in providing such services." (Section 9(d)).

At the time the Regional Power Act was working its way through Congress, there was a very real concern that BPA would attempt to control resource development in the Region both through which resources it sought to acquire and other actions such as intertie access. It is for that reason that subsection (d) of Section 9 was added rather late in the process. BPA is now trying to control resource development.

Conclusion

BPA has apparently determined that the Regional Power Act provides it with authority which it did not previously have. That authority is to impose on utilities certain operating conditions inconsistent with the FERC license governing the operation of those facilities. It seems rather clear that the drafters of the Regional Power Act intended that the Act did not change the authority of any Federal agency regarding fish and wildlife. The House Interior Committee Report, the last Committee report prior to passage of the final Act, makes cloar that Congress did not intend to grant any Federal agency additional authority to assist fish mitigation: "This legislation does not itself authorize any appropriation of water for fisheries purposes; all actions of other Federal agencies, including actions to assist fish migration, must be taken under other authorities." H.R. Rep. No. 96-976, Part II, 96th Cong., 2d Sess., 37 (1980).

Congress intended that the only change of authority regarding the fish and wildlife provisions of the Regional Power Act was to authorize BPA to use power revenues and treasury borrowings to implement the Council's Fish and Wildlife Program.

The Company would like a determination from BPA regarding its existing projects listed in Exhibit A, which is attached hereto and by this reference incorporated herein as though set forth. Can those projects be operated in such a manner as to a) decrease the effectiveness of BPA's Fish and Wildlife Program, b) increase the need for additional expenditures to protect, mitigate or enhance fish and wildlife, or c) otherwise interfere with the obligations of the Administrator to protect, mitigate and enhance fish and wildlife.

To attempt to impose upon the Company any operating condition inconsistent with the terms of the Company's FERC license for that project is clearly improper. While the company wants to work with the fish and wildlife agencies in the region, BPA, the Water Budget Managers, the Council and others in implementing the Water Budget on the Snake River, inclusion of fish and wildlife provisions in the Intertie Policy might require that the Company reconsider its position to participate in the Council's Fish and Wildlife Program and the BPA Fish and Wildlife Program. There is a real possibility that this Intertie Policy could result in undermining the working relationship that the Council's Fish and Wildlife Program has created in the Region.

EXHIBIT A

A. Hydroelectric Projects

1. American Falls. The American Falls Power Plant is located adjacent to the northwest side of the City of American Falls, Idaho, at Snake River mile 714.7 and is the most upstream of the Company's hydroelectric projects. While the powerhouse is the property of the Company, the dam itself was constructed by the United States Bureau of Reclamation in the American Falls Reservoir District.

For the Company, the Project operates much as a "run-of-the-river" facility in that the United States Bureau of Reclamation and the irrigators have control over the inflows from upstream projects and all of the releases from the reservoir. The Company simply makes use of those water releases to produce electricity. During the fall and winter refill period, the outflow from the reservoir is reduced to a minimal value to assure refill for irrigation. These flows are generally low enough that the generators are physically incapable of producing any power from them. As a result, the water is usually spilled around the powerhouse.

2. Twin Falls. The Twin Falls Power Plant is located approximately five miles east northeast of the City of Twin Falls, Idaho, at Snake River mile 617.4. The project is downstream from the Milner Dam of the United States Bureau of Reclamation, a distance of approximately 21.7 miles. During a large portion of the summer, river flows are reduced to virtually zero with the entire flow of the Snake River being diverted for irrigation above Milner.

3. Shoshone Falls. The Shoshone Falls Power Plant is located approximately three miles northeast of the City of Twin Falls, Idaho, at Snake River mile 614.7 and 2.7 miles downstream from the Twin Falls Power Plant. The river flows at this project, like those at the Twin Falls Power Plant, are essentially under the control of the United States Bureau of Reclamation through the operation of the American Falls, Minidoka and Milner facilities.

4. Thousand Springs and Clear Lakes. The Thousand Springs Power Plant is located about five miles southeast of Hagerman, Idaho, at Snake River mile 584.7, and the Clear Lake Power Plant is located about four miles north northwest of Buhl, Idaho, at Snake River mile 593.0. These two projects were developed by the Company to produce energy from some of the many large ground water springs that exist along the north wall of that reach of the Snake River canyon.

5. Upper Salmon. The Upper Salmon Project, located approximately three miles south of Hagerman, Idaho, consists of one dam at Snake River mile 581.4 and two powerhouses connected by a canal. This canal allows the water that passes through the upper powerhouse at Snake River mile 580.8 (B Plant) to be channeled to and utilized by the lower powerhouse at Snake River mile 579.6 (A Plant).

6. Lower Salmon Falls. The Lower Salmon Falls Plant is located approximately one mile north of Hagerman, Idaho, at Snake River mile 573.0, about 6.6 miles downstream from the Upper Salmon A Plant. The river flow time between the two projects is virtually nill since the reservoir of the Lower Salmon Falls Project in fact croaches slightly on the tailed water of Upper Salmon at flow reservoir.

7. Upper and Lower Malad. The Big Wood and the Little Wood Rivers combine near the town of Gooding, Idaho, to form what is generally referred to as the Malad River, which, after a distance of 11.9 miles, empties into the Snake River at its mile 571.4, a short distance below the Lower Salmon Falls Power Plant. The Company has developed the lower 2.5 miles of the Malad River for power production by converting two diversion dams, two concrete flumes and two powerhouses, in series such that the upper plant empties into the forebay of the lower plant. The two plants, a short distance of north of Hagerman, Idaho, are strictly "run-of-the-river" facilities.

8. Bliss. The Bliss Power Plant is located about six miles west of the town of Bliss, Idaho, at Snake River mile 560.3. The river flow changes due to the Lower Salmon Falls Project 12.7 miles upstream or experienced at Bliss approximately 90 minutes later.

9. C J Strike. The C J Strike Power Plant is located at Snake River mile 494.0, approximately 66 miles below the Bliss Power Plant and about one mile down river from the confluence of the Bruneau and Snake Rivers. The flow time between the two facilities is approximately 12 hours. The project is located 7½ miles southeast of Grandview, Idaho.

10. Swan Falls. The Swan Falls Power Plant is located at Snake River mile 457.7, approximately 36 miles downstream of the C J Strike Dam and 10 miles east northeast of the town of Murphy, Idaho. Power output from Swan Falls is determined by flows resulting from the operation of the C J Strike plant upstream.

11. Brownlee. Brownlee Dam is located at Snake River mile 285.0, approximately 173 miles down river from Swan Falls, and 25 miles

northeast of the town of Cambridge, Idaho. The Brownlee Reservoir, with 980,250 acre feet of active storage at pond elevation 2,077.0 feet, is the only major storage reservoir in the Company's system.

12. Oxbow. The Oxbow Power Plant is located at Snake River mile 273.0, approximately 12 miles downstream from Brownlee and 22 miles northeast of Halfway, Oregon. The storage created by the Oxbow Dam, which extends to the tailwater of Brownlee, is quite limited. As such, the generation of Oxbow is determined by current or expected generation levels at Brownlee.

13. Hells Canyon. The Hells Canyon Power Plant is located at Snake River mile 247.0, approximately 26 miles downstream from Oxbow. Like Oxbow, the storage at Hells Canyon is quite limited so the plant is operated in conjunction with the other two canyon plants.

14. Cascade. The Cascade Power Plant is located immediately north of the town of Cascade, Idaho, at river mile 40.2 on the North Fork of the Payette River. While the powerhouse is the property of the Company, the dam itself was constructed by the United States Bureau of Reclamation.

For the Company, the Project operates much as a "run-of-the-river" facility in that the United States Bureau of Reclamation and irrigators control all the releases from the reservoir. The Company simply makes use of those water releases to produce electricity.

B. Thermal Plants

1. The Jim Bridger Project, located in Sweetwater County, Wyoming, is a 2,000 megawatt coal-fired electric power plant consisting of four units, each approximately 500 megawatts. This Project is located

outside the Region as defined in the Regional Power Act. The Company owns 1/3 of the Jim Bridger Project.

2. The Valmy Project, located in Humboldt County, Nevada, is a 500 megawatt coal-fired electric power plant which will consist of two units, each approximately 250 megawatts. This Project is located outside the Region as defined in the Regional Power Act. The Company owns 1/2 of the Valmy Project.

3. The Boardman Project, located in Morrow County, Oregon, is a 500 megawatt coal-fired electric power plant consisting of one 500 megawatt unit. The Company owns 10% of the Boardman Plant.

COMMENTS OF IDAHO POWER COMPANY
ON THE BONNEVILLE POWER ADMINISTRATION'S
REVISED NEAR-TERM INTERTIE ACCESS POLICY

The following are the comments of Idaho Power Company (the "Company" or "IPC") on the Bonneville Power Administration's ("BPA") Revised Near-Term Intertie Access Policy ("Revised Policy").

1. Attached hereto are the comments the Company made on BPA's Near-Term Intertie Access Policy ("Interim Policy"). The thrust of the attached comments is that BPA does not have the authority to implement the Special Provisions Relating to Fish and Wildlife. The Company's position on that issue has not changed. IPC still firmly believes that BPA does not have the legal authority to implement those Special Provisions Relating to Fish and Wildlife included in the Revised Policy. Please consider the attached comments particularly regarding the authority issue as though they are being made with respect to BPA's Revised Policy. The following comments, in addition to some further questions and comment regarding the fish and wildlife provisions in the Revised Policy, discuss in some detail the Company's objection to BPA's method of determining IPC's average annual firm surplus based on critical water.

2. The Company has some additional questions and comments regarding the fish and wildlife provisions in the Revised Policy.

a. The Company still does not understand what programs BPA has or funds that are adversely affected by or could be adversely affected by the operation of any Company resource. BPA has chosen to put the burden on the region's fish and wildlife agencies and the public to raise these issues leaving the utilities in the dark as to BPA's position on this issue. This raises a real question regarding BPA's public involvement process. In the

attached comments the Company made on BPA's Interim Policy, the Company had requested a copy of BPA's Fish and Wildlife Program. In the Administrator's Record of Decision, BPA dropped the term "the Administrator's Fish and Wildlife Program" and substituted in its place the phrase "the Administrator's efforts on behalf of fish and wildlife."

While this change in phrases seems somewhat more consistent with BPA's practice of adopting for funding only portions of the Northwest Power Planning Council's Fish and Wildlife Program and not preparing and adopting its own fish and wildlife program, it still does not allow the Company to analyze the effect of how, if at all, the Administrator's presently committed efforts on behalf of fish and wildlife might be applied to the operation of any of the Company's resources. Therefore, the Company would again request that BPA advise the Company of any fish and wildlife efforts of the Administrator that are arguably affected by the operation of any Company resource as listed in Exhibit A of the attached comments on the Interim Policy. The Company understands that the Special Provisions Relating to Fish and Wildlife do not apply to thermal resources or anything resulting from the construction of an existing hydroelectric resource.

b. In reviewing the Administrator's Record of Decision on the Interim Policy, the Company interprets BPA's Evaluation of Comment and Decision under "Relationship of Intertie Access Policy to the Water Budget as follows:" Because the Company's participation in Water Budget is voluntary, and because BPA is exercising authorities other than expenditure authorities under 4h(10)(A) of the Regional Power Act, any Company participation in Water Budget becomes a part of the Administrator's efforts on behalf of fish and wildlife, only to the extent, if any, the Company decides to participate by releasing

water from Brownlee Reservoir. This despite the fact that a Company decision to not participate or a reduction in its participation in Water Budget could necessitate releases of additional volumes of water from federal project(s), mainly Dworshak Reservoir. Consequently, whatever the Company decides to do regarding the release of water from Brownlee cannot and will not be considered by BPA as adversely affecting the Administrator's efforts on behalf of fish and wildlife for the purpose of intertie access for Assured Deliveries. If the Company is incorrect in this interpretation, please advise us. This interpretation is based not only on the Administrator's Record of Decision but also on discussions interpreting said Record of Decision with BPA staff.

c. The Company remains frustrated by the lack of clarity in BPA's fish and wildlife provisions in the Interim Policy as well as the Revised Policy. The Company understands that BPA cannot commit that the operation of any resource in the region will not adversely affect BPA's efforts on behalf of fish and wildlife in the future. However, why BPA cannot state whether the present operation of any resource would or would not adversely affect the Administrator's efforts on behalf of fish and wildlife is a mystery. BPA is required to give the public the opportunity to comment on its programs. Such a position runs counter to BPA's public involvement process. It is kind of like "let's not rock the boat unless someone makes waves." This is fine if the issue is never raised. However, if BPA decides to fund a fish and wildlife measure and no northwest utility objects or even notices it during the budgeting process, there will be no utility opposition to the measure. Once BPA funds the measure and a resource agency later attacks a utility's operation as adversely affecting the measure BPA agreed to fund, the measure is set and the give and take is limited to whether the operation of the resource adversely

affects the measure or not as opposed to a broader discussion of whether the measure is necessary and proper in light of the potential implication that it might also be affected by the operation of a utility's resource.

Would BPA implement a public involvement process similar to the following:

(1) BPA would analyze each proposed fish and wildlife effort (measure) it was considering for funding to determine if said effort would arguably (however slight) be affected by the operation of any generating resource in the region.

(2) In the event BPA determines that such effort would arguably be affected by the operation of a generating resource in the region BPA would notify the owner(s) and/or operators of the resource and give such utility(ies) the opportunity to comment on the proposed fish and wildlife effort.

(3) BPA would consider the utilities' comments on the issue of whether or not the fish and wildlife effort would be adversely affected by the operation of the resource as well as whether the fish and wildlife effort is reasonable and prudent in light of the operation of the resource and the fish and wildlife interests of the region including without limitation the balance required in the Regional Power Act between the operation of hydroelectric generating facilities and fish and wildlife interests. We cannot forget that Section 4(h)(5) of the Regional Power Act requires a balance between the Fish and Wildlife Program of the Council and the need for an "adequate, efficient, economical and reliable power supply." This applies to BPA as well as the Council.

(4) In its decision, BPA would state whether it would proceed with funding the proposed fish and wildlife effort; whether the effort would be adversely affected by the operation of the resource; if BPA determines the effort would be adversely affected by the effort than when (months) and how much of the capability of the plant is ineligible for intertie access.

3. The Company objects to BPA's method of determining assured delivery for firm contracts. BPA determines assured Deliveries for firm contracts by determining a utility average annual firm surplus based on critical water. The Company plans on median water conditions.

The Company feels that BPA's selection of critical water as the planning criteria used to determine a utility's average annual firm surplus is inappropriate as applied to IPC. Why can't BPA accept each utility's planning basis for the purpose of determining its average annual firm surplus? The Company plans on median water, why can't BPA determine the Company's average annual firm surplus on that basis. BPA's response seems to be that if they were to determine the Company's average annual firm surplus on the basis of median water, they would have to determine the average annual firm surplus of all other utilities in the region on the same basis. Consequently, the surplus in the region would be considerably greater than presently exists, and the Company's allocation of intertie capacity might be smaller as presently listed in Exhibit B. But why does the same criteria have to be applied to every utility? Why can't BPA simply accept each utility's stated planning basis. Determine IPC's average annual firm surplus on the basis of median water planning and the rest of the region's utilities on a critical water basis. The difference between the Company's planning basis and that of the rest of the utilities in the region has existed for some time. When this difference became

a barrier during the Regional Power Act negotiations, the parties worked it out, and the Company was able to accept the Power Sales Contract. The parties should be able to work it out now.

Why can't BPA accept the Company's planning basis as right for the Company as well as the region. Because of the Company's summer peak and the region's winter peak, the Company's planning basis permits a nice utilization of diversification within the region. Even in the very driest year (1977), the Company, while it purchased some power from other utilities including BPA, did not rely on the region. And now the Region's concern is not that the Company would rely on the region during energy deficits, but how to get rid of the region's surplus. Finally, the Company's partner in the Valmy plants (Sierra Pacific Power Company) has large amounts of oil-fired generation available and in some cases on standby for system reliability. The Company could purchase energy from Sierra if it was needed to back up a sale to the Southwest. Would BPA be satisfied if the Company entered into a contract with Sierra Pacific Power Company to utilize some of its oil-fired generation in the event of shortages. The contracts could be for an amount sufficient to cover the Company's firm contract (sale to the Southwest) based on critical water planning. Would BPA then consider such a contract in determining IPC's average annual firm surplus?

It is interesting to note that one stated purpose used to support the funding and construction of the Northwest/Southwest intertie was "to integrate the Pacific Northwest and Pacific Southwest through diversity and peak/exchange transaction and to transmit the region's surplus power and energy to other regions, particularly the Southwest." BPA's Proposed Near-Term Intertie Access Policy, Page 11, dated July 13, 1984. Apparently, it is okay for BPA to argue

utilization of diversity to justify something, but it is wrong for the Company because of its unique circumstances to rely upon and utilize the diversity of the region to justify median water planning.

Both the Regional Power Act, Section 9(i)(1) and the Federal Columbia River Transmission System Act, 16 USC §838, require that BPA's intertie access or allocation of capacity be on a fair and nondiscriminatory basis. The Company contends that BPA's insistence on determining the Company's average annual firm surplus based on critical water (the region's planning basis) rather than median water (the Company's planning basis) is discriminatory. BPA is refusing to recognize the Company's planning basis for the purpose of determining average annual firm surpluses. BPA is saying, IPC you must accept our planning basis. It is on BPA's planning basis that decisions such as determining a utility's average annual firm surplus is made. BPA's policy discriminates against the Company because of its planning basis. The Company assumes that BPA's response to such a position would be that its position is rational (reasonable) in light of all the diverse interests in the region. This would lead the parties to a determination of who's right. Which planning basis is right or are both right in light of each party's respective interests. The Company firmly believes that its decision to plan on median water was correct for both the Company and the region.

One reason the Regional Power Act came into being was to provide some new innovative mechanisms for financing new generating facilities to meet the large energy deficits forecasted for the 1980's and 1990's in the region. The result was, of course, that BPA was authorized to purchase the capability or output of new generating facilities. But the Regional Power Act authorizes BPA to purchase the output or capability of a generating facility only as needed

with some strict limitations regarding the type of generating facility they may purchase. If the Company were to construct a new resource in order to put it on a critical planning basis, and assuming it was a resource with a high priority under the provisions of the Regional Power Act, would BPA be willing to purchase the output or capability of such resource to serve the region's load and as needed IPC loads. The answer has to be no. The region has a huge power surplus. How then can BPA say that the Company's planning basis is wrong?

Finally, the Company cannot determine what information BPA used in determining IPC's average annual firm surplus as set forth in Exhibit B. The information does not conform with that the Company submits to the Northwest Power Pool which ultimately goes to the PNUCC. Further, the loads do not conform with those the Company submits to BPA on Exhibit I of the Power Sales Contract. In addition, there is total exclusion of the Company's cogeneration (small power) resources as well as other unexplained differences and inconsistencies.

The Company would ask that BPA consider these comments including the attached comments, in formulating its Revised Policy.

United States Department of the Interior

OFFICE OF ENVIRONMENTAL PROJECT REVIEW
WASHINGTON, D.C. 20240

TAKE PRIDE IN AMERICA

ER 86/1347

JAN 20 1987

Mr. James J. Jura
Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Mr. Jura:

This is in response to your request for the Department of the Interior's review and comments on your proposed intertie access policy and draft intertie development and use environmental impact statement.

The following enclosed documents from Bureaus of the Department constitute our comment:

Bureau of Land Management (Nov. 20, Nov. 28, Dec. 2, 1986)
National Park Service (Dec. 3, 1986)
Bureau of Mines (Dec. 9, 1986)
Fish and Wildlife Service (Dec. 30, 1986)
Bureau of Reclamation (Dec. 24, 1986, Jan. 6, 1987)
Bureau of Indian Affairs (Dec. 10, 1986, Jan. 7, 1987)

Sincerely,

Bruce Blanchard, Director
Environmental Project Review

Enclosures (10)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Idaho State Office
3380 Americana Terrace
Boise, Idaho 83706

attachment
TIE-1-103

In Reply
Refer to: 1795 (932)

NOV 20 1986

Memorandum

To: Director, OEPR

From: State Director

Subject: DEIS for BPA's Intertie Development and Use and Proposed Long-Term Intertie Access Policy (ER 86/1347)

We have reviewed the DEIS and proposed long-term intertie policy and have the following comments:

a. The DEIS does not involve public lands in Idaho and, therefore, we have no comment.

b. We have been, and will continue, working with BPA and Idaho Power on the Inland Intertie Study.

Charles G. Hansen

ACTING

cc:
WO (760), Premier Building

attachment
to TIE-1-103

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE

1792 (931)
1452F

MEMORANDUM

Date: November 28, 1986

To: Regional Environmental Officer, Office of Environment Project Review, Washington, D.C.

From: State Director, Arizona

Subject: Review of Draft Environmental Impact Statement for BPA's Intertie Development and Use and Proposed Long Term Intertie Access Policy, Washington, Oregon, Idaho, Montana, Wyoming, California, Nevada, Utah, New Mexico and Arizona (2 Volumes)

The Bureau of Land Management has no comment about the subject document.

Acting

cc: WO-760

Attachment
TIE-1-103

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
CALIFORNIA STATE OFFICE
2800 Cottage Way
Sacramento, California 95825

1792
CA-930.12

Attachment
TIE-1-103

DEC 02 1986

Memorandum

To: Director, Office of Environmental Project Review

From: Deputy State Director, Lands & Renewable Resources

Subject: Draft Impact Statement, BPA's Intertie Development and Access Policy (ER 86/1347)

The Bureau has reviewed the subject documents and offer the following suggestions:

1. The policy be written in a way that invites and encourages joint use, thus limiting proliferation of duplicative/paralleling transmission and land use.

2. The policy be written to encourage interstate, interregional, and international power flow, load management, and marketing. This will provide expanded markets for power generated by our coal resource customers/lessees.

3. The policy be written to encourage competition between public consumer, and investor-owned wholesale power suppliers, thus yielding lower retail rates to the consumer.

We appreciate the opportunity to comment.

Richard J. [illegible]

cc:
SD, Montana
SD, Oregon
SD, Idaho
WO (760), Room 909 Premier Bldg.

Attachment
TIE-1-103

NATIONAL PARK SERVICE

FOR USE IN PROVIDING A "NO COMMENT" RESPONSE TO WASO-762

(Send to arrive at WASO-762 by deadline date)
(May be hand printed)

ASSIGNMENT: ER 86/1347

TITLE OF DOCUMENT: BPA's INTERTIE DEVELOPMENT & USE & PROPOSED LONG TERM INTERTIE ACCESS POLICY DEIS

REVIEWING OFFICE: PNRO

Document has been reviewed by: RON HYRA 399-5366
(Print or Type Name & Telephone Number)

BRIEF DESCRIPTION OF PROPOSAL: Explores effects of proposals to increase capacity of the NW-SW INTERTIE. & ways to adopt intertie access policy

The subject proposal does not affect the interests of the National Park Service.

The subject document adequately addresses NPS concerns, including any Federal, State, Regional or local park, recreation, cultural or natural area in which NPS has a mandated interest or jurisdiction. This includes units of the National Park System; existing and proposed units of the Wild and Scenic Rivers System; National Trails System; archeological, historical, natural, or recreation resources protected by the Antiquities Act of 1906; the Historic Sites Act of 1935; Land and Water Conservation Fund Act of 1965, as amended; Federal Water Project Recreation Act of 1965; National Historic Preservation Act of 1966, as amended; Federal Surplus Lands for Parks and Recreation Act of 1970; Section 4(f), Department of Transportation Act of 1966, as amended; Urban Park and Recreation Recovery Act of 1978; and other appropriate park, recreation and historic area legislation, Executive Orders and regulations.

Ron Hyra
(SIGNATURE)

12/3/86
(DATE)

ORP
(TITLE)

United States Department of the Interior

OFFICE OF THE DIRECTOR

BUREAU OF MINES
2401 E STREET, NW.
WASHINGTON, D.C. 20241

Attachment
TIE-1-103

December 9, 1986

Memorandum

To: Director, Office of Environmental Project Review

From: Director, Bureau of Mines

Subject: Review of draft environmental impact statement for EPA's Intertie Development and Use and Proposed Long Term Intertie Access Policy, Washington, Oregon, Idaho, Montana, Wyoming, California, Nevada, Utah, New Mexico, and Arizona (2 vols.) (ER-86/1347)

The Bureau of Mines has reviewed the documents to determine whether mineral resources are adequately addressed. The documents concern policies and methods to distribute electric power efficiently between the Pacific Northwest (PNW) and California.

Expansion of the intertie capacity and implementation of the access policy, as proposed, would affect production and consumption of mineral fuels. These impacts, which are adequately described in the statement, relate to changes in production at thermal (oil, gas, coal) and nuclear electric generating plants in the Western United States. In general, California and the Inland Southwest (ISW) would generate less power at thermal plants and rely more on surplus power from the PNW. Slight increases in coal consumption in the PNW would be more than offset by decreases in oil, gas, and coal consumption in California and the ISW.

We have no objection to the documents as written.

Robert C. Horton
Director

United States Department of the Interior

ADDRESS ONLY THE DIRECTOR
FISH AND WILDLIFE SERVICE

FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

Attachment
TIE-1-103

DEC 30 1986

Memorandum

To: Director, Office of Environmental Project Review

From: Director

Subject: Review of Draft Environmental Impact Statement for Bonneville Power Administration's Intertie Development and Use and Proposed Long Term Intertie Access Policy, Washington, Oregon, Idaho, Montana, Wyoming, Nevada, California, Utah, New Mexico and Arizona (2 Volumes) (ER 86/1347)

The Fish and Wildlife Service (Service) has reviewed the Bonneville Power Administration's (BPA) subject draft environmental impact statement (EIS), as requested in your memorandum of November 3, 1986. Accordingly, we have the following comments for inclusion in a Departmental letter of response.

The draft EIS (Volume 1) addresses BPA's proposed long-term Intertie Access Policy (Volume 2), power capacity levels, and regional marketing options (herein collectively referred to as IAP). The stated need for a new IAP stems from existing surplus power conditions in the Pacific Northwest, and the degree such power can be provided to the Southwest.

GENERAL COMMENTS

The Service recommends that the final EIS expand on its discussion of impacts on fish and wildlife resources as a result of increased production/transportation and operations of coal, oil, and gas generating plants in the Pacific Northwest and in California. In particular, the final EIS should address any possible adverse effects that increases power generation would have in the winter months on anadromous fish resources in California. At the present time, we are unable to adequately analyze the impact-modeling data (assumptions, criteria, range of values, etc.). Additional background on these data should be included in the final EIS to support BPA's conclusion that adverse impacts will be minor or nonexistent.

The final EIS should address the impact of the proposed IAP on hydropower projects currently proposed for licensing in California. The IAP may reduce the justification for projects on the Sacramento River that may have a significant adverse impact on anadromous fish habitat in California. The proposed IAP could also result in increased small hydroelectric development that would divert significant amounts of streamflow from rivers during important fish life development stages.

Though the document identifies potentially significant adverse impacts to many Columbia River anadromous fish stocks (section 4.5), the final EIS (section 4.5-28) should discuss in detail all practicable means that would avoid or minimize environmental harm from the alternatives. It should describe possible mitigation measures needed to offset any unavoidable impacts. Detailed discussions should also cover proposed monitoring and enforcement plans.

The Service has special concerns regarding federally listed endangered and threatened species, pursuant to the Endangered Species Act (ESA). In that regard, the Service provided BPA, in a letter dated November 19, 1986, a list of endangered and threatened species that may be present within the multi-state geographical boundaries influenced by the proposed IAP. This information was requested by BPA in their letter dated October 2, 1986. The final EIS should address any consultation conducted under the ESA.

Finally, new construction or the modification of existing facilities addressed under the proposed IAP may require separate evaluation and environmental documentation. The Service is willing to cooperate in the planning of these projects with a view towards the conservation of fish and wildlife resources.

SPECIFIC COMMENTS ON THE ENVIRONMENTAL IMPACT STATEMENT

Page 2-5. We concur that it will be a difficult task for BPA to determine the relative environmental impact of generation by different means of power production, and to allow first access to the source of power with the least impact. Because there are no widely agreed-upon rankings or regional preferences, if BPA attempts to make such a determination, it should be done on a case-by-case basis and include consultation with appropriate Federal and State resource agencies.

Page 2-9; and Volume 2, Page 4. The draft EIS indicates that BPA's consideration of denial of Intertie access to new hydroelectric resources is based only on protecting BPA's fish and wildlife investments. The statement conflicts with language in the IAP (Volume 2) which indicates that access restrictions for new projects would be based on BPA's fish and wildlife expenditures and other Columbia River basin fish and wildlife resource concerns. To rectify this discrepancy, the Service recommends the latter approach, in that BPA's approach to Intertie access should adequately provide for the maintenance and restoration of these resources under the Columbia Basin Fish and Wildlife Program, adopted pursuant to the Northwest Power Act. The depleted status of many anadromous fish stocks in the basin (see page 4.5-1) does not allow for additional impacts resulting from system expansion. There is no indication that the cumulative effects of multiple resource acquisitions, which might be individually insignificant but collectively significant, will be analyzed.

Page 3-17. The document indicates that California's major utilities are planning to develop hydroelectric resources to meet an increasing demand for electricity. The final EIS should discuss how the proposed IAP could lead to hydroelectric power savings in California.

Page 3-37. Potential changes in the operation of the Pittsburgh and Contra Costa power plants due to long-term energy exchange contracts should be addressed. Also, any potential adverse impacts on the Sacramento and San Joaquin Rivers and the Delta, particularly regarding anadromous fish, should be discussed in the final EIS. In addition, potential adverse impacts to the fish and wildlife resources of Moss Landing Harbor, due to changes in operation of the Moss Landing Plant, should be discussed.

Page 4.2-1. The final EIS should elaborate further on how the proposed IAP may affect the development of new hydroelectric power in the Pacific Northwest, California, and the Southwest.

Page 4.2-19. The draft EIS suggests that changes in Pacific Northwest surplus sales to California affect the amount of California power generation required to serve California load, and that California's power generation mix includes substantial shares of hydroelectric power. It concludes on page 4.3-22 that because most hydroelectric power generation in California is run-of-the-river and has little storage capacity, it is not affected by either the proposed Intertie capacity or policy alternatives. However, there is a significant amount of power generated in California at hydroelectric plants from other than run-of-the-river operations, such as peaking power at large storage reservoirs. The final EIS should discuss potential impacts of Intertie capacity or policy alternatives as they relate to these other operations.

Page 4.5-5. The draft EIS concludes that there would be no significant effect on the present level of fish entrainment at the Pittsburgh and Contra Costa power plants. The final EIS should discuss whether the proposed IAP would have the potential to substantially reduce generation at these plants during certain times of the year, and possibly reduce the entrainment mortality of striped bass larvae and juveniles. It should also discuss whether other anadromous fish species would be entrained at the Pittsburgh and Contra Costa power plants.

Page 4.5-10. The Service contends that the estimated increase of one day in travel time for downstream migrant salmonid fish caused by the proposed IAP is significant, rather than insignificant as the draft EIS concludes. Since travel time has already been increased substantially for these downstream migrants, any additional effect on residualism or other migration effects may be synergistic, or accentuated, rather than simply additive. This concern should be addressed in the final EIS.

Page 4.6-1. The draft EIS states that expected water level fluctuations are not likely to significantly affect wildlife. This statement is not supported by existing data. If it is possible, it would be desirable to model water level changes in the upper reaches of some of the main stem reservoirs on the Columbia River to assess effects on islands and other important wildlife habitats. These changes should also be analyzed by month or season to relate to waterfowl nesting, mammal denning, and other wildlife activities.

SUMMARY COMMENTS

The Service contends the proposed IAP may cause greater adverse impacts than those identified in the draft EIS. The final EIS should adequately address any adverse impacts to anadromous fish and their habitats in the Columbia River basin and in California. The analysis of impacts would be substantially improved if additional background on impact modeling data were incorporated into the final EIS to support the conclusions.

For technical assistance pertaining to fish and wildlife matters, please contact the appropriate Service field offices listed on the attachment.

Thank you for the opportunity to review the subject draft EIS. If you have any questions regarding these comments, please contact Don Peterson of our Division of Ecological Services, Branch of Environmental Coordination, at 343-5685.

Suzanne Mayer

Attachment

List of Fish and Wildlife Service offices available for technical assistance and Endangered Species consultation.

IN OREGON

For General Coordination:

Field Supervisor
U.S. Fish and Wildlife Service
727 N.E. 24th Avenue
Portland Oregon 97232
FTS: 429-6179 or
Commercial: (503) 231-6179

For ESA Consultation (Western Oregon)

Field Supervisor
U.S. Fish and Wildlife Service
2625 Parkmont Lane, Bldg. A
Olympia, Washington 98502
FTS: 434-9444 or
Commercial: (206) 753-9444

For ESA Consultation (Eastern Oregon)

Field Supervisor
U.S. Fish and Wildlife Service
4696 Overland Road, Room 566
Boise, Idaho 83705
FTS: 554-1806 or
Commercial: (208) 334-1806

IN CALIFORNIA

For General Coordination:

Field Supervisor
U.S. Fish and Wildlife Service
2800 Cottage Way, Room E-1803
Sacramento, California 95825
FTS: 460-4613 or
Commercial: (916) 978-4613

For ESA Consultation:

Field Supervisor
U.S. Fish and Wildlife Service
2800 Cottage Way, Room E-1823
Sacramento, California 95825
FTS: 460-4866 or
Commercial: (916) 978-4613

IN NEVADA

For General Coordination and ESA Consultation

Field Supervisor
U.S. Fish and Wildlife Service
4600 Kietzke Lane, Suite C
Reno, Nevada 89502
FTS: 470-5227 or
Commercial: (702) 784-5227

United States Department of the Interior

BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
FEDERAL BUILDING & U.S. COURTHOUSE
BOX 043-550 WEST FORT STREET
BOISE, IDAHO 83724

IN REPLY REFER TO: PN 150

DEC 24 1986

Attachment
TIE-1-103

Ms. Donna L. Geiger
Public Involvement Manager SJ-L2
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

The Bureau of Reclamation has received and reviewed the Draft Environmental Impact Statement concerning Intertie Development and Use (IDU DEIS). As a Cooperating Agency in the NEPA process, we have also participated in the earlier reviews and in portions of the initial scoping process. The comments presented in this letter are an expansion of concerns and questions raised by members of our regional staff at the technical review meeting for cooperating agencies held in your Portland offices on November 17, 1986.

Our letters of September 5, 1985, and July 3, 1986, providing the Bureau of Reclamation's concerns during the scoping process and our comments on the preliminary draft EIS, respectively, covered many of the same issues as we now present for your use in the preparation of future documents concerning Intertie Development and Use. Some additional material was provided in the IDU DEIS in response to the earlier comments, but as you can see from the added and more detailed comments that follow, we are still of the feeling that some very important potential impacts have not been analyzed or adequately presented for review. One of our goals in requesting Cooperating Agency status was to assure that the final IDU EIS would sufficiently cover operational changes and impacts at Bureau-operated facilities of increased extra-regional power demands and the other collateral actions being proposed by BPA to obviate any need for additional, perhaps redundant, NEPA compliance efforts at some later date--before the additional energy demands could be fulfilled.

The Bureau does not have the funds or staff budgeted to aid BPA by conducting the studies of environmental impacts that should be accomplished prior to completing the environmental process and implementing expanded intertie development and use. We are not convinced, however, that this condition relieves BPA of its obligation to consider all the impacts which may result from the proposed actions. The potential for competition, in the not too distant future, between operation of water management facilities in the Columbia River Basin for the generation of energy for export and operation of those same facilities for recreation, fish and wildlife enhancement, agricultural development, and/or other regional water resource uses, is very real. Without making any judgment as to which of those uses should have priority, it would seem imperative that the impacts on the various uses must be considered. We hope that BPA will give these concerns some further thought and that these issues will be more fully explored prior to a final decision on implementation of the proposed Long Term Intertie Access Policy. If the impacts which our reviews have focused upon can be given thorough analysis and appropriate mitigation steps are adopted, the Bureau of Reclamation would be supportive of the concept of implementing those physical and policy actions which would effectively ease the transfer and sale of surplus Federal power.

The following paragraphs provide, by project and resource categories, the questions and concerns expressed by members of our region's staff after they had examined the IDU DEIS in the light of the Bureau's operational responsibilities and expertise. If you have further questions after you have reviewed this letter, please contact Douglas James (FTS 554-1208) of our Regional Office of Environment and he will assist in clarification or put you in touch with the person who can. We look forward to reviewing the preliminary drafts of subsequent documents concerning the intertie access proposal.

Recreation

The draft EIS points out in several sections that there may be impacts to recreation as a result of this proposal. However, it fails to identify where (site specific), when (frequency), how, and to what extent these impacts will occur. Recreation is an important aspect of the economy and quality of life of the Pacific Northwest. It warrants careful analysis. This analysis is necessary in order to adequately evaluate the impacts of this proposal and determine appropriate mitigation measures.

The recreation impact analysis should include a clear presentation of the existing conditions and future conditions with the proposal on a site specific basis in terms of on-the-ground impacts to natural resources and recreational resources. Downstream impacts on river recreation should be included.

The deficiency in definition of impacts makes it extremely difficult to identify appropriate mitigation measures. Therefore, at the risk of underestimating mitigation costs, those costs should be anticipated on a "worst case" basis. This would provide some protection of the recreation interests at Hungry Horse and FDR Reservoirs.

Reclamation's primary concern is that the impacts resulting from this proposal are identified adequately and, if unavoidable, mitigated to ensure continued quality recreation use of our reservoirs. BPA, as the lead agency for IDU DEIS, should take responsibility for adequately identifying impacts and determining appropriate mitigation measures, whether through their own resources or by contract. There are several agencies or entities capable of doing this level of analysis by contract.

We assume that impacts can be mitigated in some cases through structural modification or by modifying reservoir operations. Both direct and indirect impacts should be mitigated as fully as possible. Direct impacts are conditions which are a direct result of the proposed action and may preclude

recreation use altogether. Mitigation of direct impacts may include the following:

--Extend boat ramps to enable access.
--Grade newly exposed beach areas to make them safer for swimmers.
--Sign or remove partially submerged hazards.
--Modify pumps to function at lower reservoir elevations.
--Modify docking system to accommodate fluctuating or lowered reservoir elevations.
--Excavate docking areas to accommodate boats at lower reservoir elevations.

Indirect impacts are those which diminish the quality of recreation use by making it less attractive or accessible to the visitor. Mitigation of indirect impacts may include the following:

--Develop low-water parking areas which allow convenient access to boating facilities during times of low water levels.
--Provide operation and maintenance money (or some other mechanism) to relocate picnic and other land-based facilities closer to reservoir shoreline during times of low water levels.
--Develop new road or trail access to shoreline during low water levels.

Cultural Resources

1. The last paragraph in DEIS section 2.1.5 on page 2-4 states that the intertie upgrades would have no appreciable effect on cultural resources. This statement is premature and misleading since BPA did not analyze actual impacts to cultural resources (see comment 4 in this section). The BPA analyzed changes in the duration and frequency of reservoir water surface elevations in relation to the elevations of known archeological sites at Grand Coulee, Libby, and Albeni Falls. Impacts were then assumed to occur in the same proportion as changes in the reservoir operation variables under study. Reservoir impacts to cultural resources are not necessarily as simple and linear as implied by the BPA analysis. Impacts must be assessed on a site-by-site basis. However, sufficient information is not available to determine impacts of the proposed project with the certainty presented in the DEIS. Completion of surveys to locate, identify, and evaluate cultural resources in the affected reservoirs is needed. The DEIS should not be considered complete until the impacts of the proposed alternatives are fully identified.

2. The discussion of cultural resources (DEIS page 3-23, section 3.2.1D.3) at Grand Coulee Dam (Lake Roosevelt) does not include discussion of the Kettle Falls Archeological District (KFAD). The KFAD is listed in the National Register of Historic Places and includes approximately two dozen sites associated with the 10,000-year-old aboriginal fishery around Kettle Falls. The KFAD encompasses large native-American sites as well as two of the earliest European-American sites in the Pacific Northwest--Fort Colville and

St. Paul's Mission. This section should be enlarged to include consideration of the significance of the cultural resources at Kettle Falls and other areas inundated by Lake Roosevelt. The present information gives the reader no indication of the richness of the archeological record.

3. The quality and extent of cultural resources surveys at Lake Roosevelt is highly variable. The available data (DEIS page 3-23, section 3.2.1D.3) reflects conditions of up to 20 years ago and is largely incomplete because historical sites were not considered equally with prehistoric sites. Additionally, reservoir dynamics are such that site conditions have changed markedly in many cases.

4. As noted in comments 1 and 3 above, the assessment of effects on cultural resources (DEIS pages 4.7-6 to 4.7-12, section 4.7.5) is based on incomplete archeological survey data and generalized, assumed impacts. Field studies to determine specific impacts on actual sites were not undertaken. In addition, the DEIS and the source document* for cultural resources did not provide sufficient detail to evaluate the selection criteria for the sample of years (1992, 1997, and 2002) used in the analysis. Consequently, the reader has no assurance that the assessment produced a representative picture of future operations.

5. The section on mitigation measures (DEIS page 4.7-13, section 4.7.5.4) recognizes the need to conduct further cultural resources studies at the several reservoirs involved in the proposed undertaking. However, the mitigation proposals are too generalized and are based on some incorrect assumptions. The most important is the assumption that it will be possible to differentiate the impacts of IDU from earlier reservoir operation impacts. The lack of baseline data for most of the reservoirs, and the complexity of site and operational interrelationships will probably stifle attempts at relatively accurate separation of effects. All operational impacts since the passage of the National Historic Preservation Act, assignable to power production should be mitigated under the IDU proposal. The assumption that the survey and evaluation to determine impacts of the IDU constitutes a mitigation measure is inappropriate. Mitigation can only be determined after impacts are determined. The results of the survey and evaluation should be available for the IDU EIS.

The following are specific comments on the proposed cultural resources mitigation measures:

The archeological surveys of Grand Coulee and Hungry Horse must include the resurvey of previously investigated areas because of

*Archaeological and Historical Services. 1986. A Cultural Resources Assessment of the Bonneville Power Administration's Proposed Intertie Development and Use on Lake Roosevelt, Lake Pend Oreille, Lake Koocanusa, Dworshak Reservoir, and Hungry Horse Reservoir. Eastern Washington University Reports in Archaeology and History 100-52. Eastern Washington University. Cheney, Washington.

improvements in surveying methods and changes in site conditions since the original surveys.

A benefit/cost analysis of site protection measures versus data recovery should be completed before adoption of either option. The Bureau of Reclamation has found that site protection is often several times more expensive than data recovery at inundated sites. For example, many of the sites of the KFAD would require exceedingly expensive hand placement of riprap on a continuing basis to assure proper protection.

Analysis, report preparation, and dissemination of archeological mitigation results is not optional. Federal regulations require completion of these tasks.

Interpretation at appropriate agency visitor centers or regional museums should be included as a mitigation measure.

Changes in reservoir operation and restrictions to protect cultural resources should be given serious consideration as mitigation measures. In many instances, for example, rapid drawdown through elevations containing sites can reduce wave and current erosion.

Public Laws 89-665 and 93-291 commit BPA to fund the surveys and mitigation associated with the proposal to establish a new long-term intertie access policy. In those areas where the Bureau of Reclamation has jurisdiction, this work must be done in cooperation with the Bureau to assure compliance with Reclamation policies and practices.

Fish and Wildlife

It would appear that the alternatives which would reduce reservoir levels could be counterproductive to those projects that are attempting to mitigate for historical anadromous fish losses. For example, in the Grand Coulee area, the proposals by the Northwest Power Planning Council for the establishment of hatcheries at Sherman Creek and on the Spokane arm would seem to conflict with the pursuit of increased drawdown potential for FDR Lake. The EIS should note these programs and describe how they will be integrated.

The IDU DEIS should propose mitigation measures for losses to fish and wildlife populations and other resources for those alternatives resulting in such losses. An explanation of how existing fish and wildlife mitigation plans are too be carried out if the no action alternative is adopted would be helpful.

There should be separate sections in the IDU DEIS for the discussion of fish and wildlife impacts and water quality impacts.

Water Operations - Hungry Horse

Section 4.7.3.1 of the DEIS states that an expanded intertie would allow more marketing of energy in peak hours. This would result in changes in hourly

operation which would have consequences for downstream recreation, as described in DEIS Section 4.7.3.

Discharges from Hungry Horse Dam during the summer months on weekends and holidays must be limited only to releases needed to meet minimum fish flow requirements. This requirement is based on the need to maintain the quality of fishery and recreational experience for the river users and to minimize safety problems that may arise from flow changes and high flows during heavy weekend recreational use. Restricting discharges on weekends during the summer months and holidays should be considered a firm constraint at Hungry Horse and should be factored into the intertie expansion studies.

Water Operations - Grand Coulee

Lower reservoir levels and more frequent fluctuations would have a profound adverse impact on local economies that rely on visitors drawn by water recreation activities. The area surrounding Grand Coulee Dam is experiencing a period of economic slowdown. Any proposal which would affect the area's basic industry, tourism, must be carefully analyzed. Extreme drawdown fluctuations are already a problem there, and with the potential of more to come, any development based on recreational attraction would become additionally risky.

The reservoir at Grand Coulee and the one at Hungry Horse were constructed prior to 1965 and are covered by the provisions of Public Law 89-72, Section 7(a). Those provisions authorize the Secretary of the Interior to operate, maintain, or otherwise provide for public outdoor recreation and fish and wildlife at any reservoir constructed prior to 1965, in coordination with other project purposes. The project purposes at both of these projects include navigation, flood control, irrigation, and hydropower. These objectives must not be restricted by subsequent studies and/or proposals to expand the range of electrical energy services. The intertie access policy alternatives must recognize that constraint.

Columbia Basin Project - Irrigation

The IDU DEIS recognizes only the current level of irrigation development on the Columbia Basin Project. Development of up to an additional 500,000 acres is authorized, and the Bureau of Reclamation is currently in the process of evaluating alternatives for future development of the project.

Comments submitted with respect to the effects of the proposed intertie development might have on the Columbia Basin Project as part of the early review process have been only briefly addressed. The DEIS, sections 3.2.9.2 and 4.7.4, makes a point of not addressing the impacts that increased capabilities to meet extra-regional power demands would have on plans to continue with full development of the authorized Columbia Basin Project. The reason given is that regional firm power impacts from continued project development would be equally affected by all intertie policy and capacity alternatives considered. This position does not appear to fulfill requirements for the EIS to consider fully the potential for impacts on existing and potential resources and resource uses, such as future irrigation expansion. The EIS evaluates long-term potential access policies and likewise needs to consider and acknowledge any immediate or potential effects on long-term water resource

commitments even though they may extend beyond the normal time frame of BPA studies.

The two sections cited above explain that the water withdrawal for the second half of the project will be considered for extension in 1989. However, no mention is made of the withdrawal's 1938 priority date. The water has been reserved from appropriation by other parties since 1938 under Washington State water codes. For the purpose of this environmental analysis, the water's future irrigation use must be explicitly treated as a firm constraint on allocation of Columbia River water for other uses including power production for the intertie system, and the impact of any alternative which might conflict with that use should be clearly presented.

Although DEIS Section 4.7.1 states that "Intertie decisions should not affect irrigation," no substantiation of that position is provided nor are any commitments made to that effect. This language leaves open the possibility that the intertie system could negatively affect future irrigation yet does not fully address the consequences should such effects occur. As stated in the Bureau's July 3, 1986, comment letter (Specific Comments - section 3.2.9.2) "BPA's proposed long-term intertie development and use policy must not conflict with authorized purposes of agencies involved in operating the Columbia River Federal Power System."

The first half of the Columbia Basin Project is one of the most significant factors influencing the Columbia Basin area today. The project has had dramatic social, economic, and recreational impacts. While the impacts of continued development would not be of equal magnitude, they would nonetheless be significant. Issues concerning allocation of both fiscal and natural resources are of equal consequence. Any action which affects the likelihood either positively or negatively of continued project development has far-reaching significance. While this EIS may not be able to evaluate in detail all the consequences that the use of available water resources for additional energy sales might have on irrigation development occurring or not occurring, it should recognize the potential conflict between competing resource uses and provide a description of the effect that implementation of the preferred long term Intertie Access Policy would have on other existing and potential uses of the region's resources.

Region-wide Water Operation Requirements

The descriptions of the alternatives (DEIS pages 2-2 to 2-3) should explicitly identify the associated reservoir and river operation changes. Operational changes are integral, not incidental, to implementation of the intertie, thus they should be accorded equal status with changes in transmission capacity, construction, institutional relationships, and economics.

The IDU DEIS does recognize that the current levels of irrigation water withdrawals are based on established water rights. There is consequently an operational need to carry water over in reservoirs through the winter to fill these water rights. The control of winter releases to serve these priority rights is a constraint on operational changes which must be recognized in the evaluation of access policy alternatives.

The DEIS states that project owners will continue to operate projects within the specified limits independently of intertie capacity or policy, and that intertie capacity or policy decisions may change the frequency with which project operating limits are reached, particularly on a daily or hourly basis. Other parts of the report also state that intertie capacity cases would have little effect on storage reservoir elevation and should not affect irrigation. However, review of the draft, including the narrative and the comparative analyses of intertie alternatives and access policies, does not result in a clear assurance, with substantiating material, that Bureau of Reclamation operational constraints will be met, especially at Hungry Horse and Grand Coulee Dams.

The following two specific analyses contained in the DEIS are pointed out to illustrate the concern over whether operating constraints are being met in the planning models:

1. Table 2.1, Summary of Major Decision Elements and Environmental Effects--Decision Packages, Item G, Recreation.--Current policy at Hungry Horse is to establish constraints to meet historical refill probability. Accordingly, refill studies are based on an 80-percent probability of being in the top 2 feet of the reservoir at the end of July. This data is used by the region's power coordination group to establish system reservoir operations.

   The draft EIS shows the probability of being in the top 2 feet at Hungry Horse Dam at the end of July ranges from 70.3 percent under package No. 1--No Action, to 65.8 percent or slightly less for package No. 5--Maximum Capacity, Modified Policy. It appears that the probability of refill should be fixed in the Systems Analysis Model (SAM), so that the probability of being in the top 2 feet at the end of July (package No. 5) should be the same as for package No. 1--No Action Alternative--the same for all alternatives. The EIS should clarify this issue. What is the significance, and the impact, of this predicted reduction in the probability of meeting operating constraints?

   At Grand Coulee Dam, existing pumps for irrigation pumping draw water from the impounded reservoir, FDR Lake. As the reservoir level drops, pumping becomes more difficult and pumps will not operate or may become damaged if the reservoir drops too low. Currently, there is a requirement for the reservoir level to be at or above 1240 feet at the end of May for irrigation. Accordingly, DEIS table 4.7.1 shows the probability of reservoir elevation being at or above 1240 feet at Grand Coulee at the end of May. The table shows no difference among alternatives in meeting the 1240-foot criterion for irrigation, and this would be expected. However, there is a slight reduction in the probability for the year 2002 (96.5 percent) from the probability for 1997 (98.5 percent) and for 1992 (98.0 percent). Is this reduction the result of changing operating constraints? One would expect planning models to recognize the 1240-foot or above mark at Grand Coulee for all periods. The EIS should clarify this issue. It is recognized, of course, that actual operations may, from time to time, drop below the 1240-foot mark.

2. Section 4.2, Power Systems Effects.--This section discusses the effects of intertie enlargement decisions on levels of Pacific Northwest generation by resource type versus the levels of generation by resource type in California and Inland Southwest (ISW). The main point being that increased intertie capacity will increase levels of Pacific Northwest generation and allow for curtailment in thermal generation in California and ISW. However, the DEIS also shows that as generation in the Pacific Northwest is increased under the various intertie enlargement options, an even larger amount of generation is curtailed in California and ISW. A better explanation is necessary in order that the reviewer might understand how this can occur.

DEIS table 4.2.2 shows that under the DC upgrade alternative, generation in the Pacific Northwest would increase approximately 100 average megawatts (MW) for hydro and 60 average MW for coal, for a total increase of 160 average MW. Tables 4.2.3 and 4.2.4, however, show that for the same intertie alternative, generation is reduced by 106 average MW in California and 250 average MW in ISW. How can 160 MW of increase in the Pacific Northwest offset 356 MW (106 + 250) of generation in California and ISW? Similar apparent discrepancies exist for the other two intertie alternatives, 3rd AC/COTP and Maximum Intertie.

In summary, the above examples do not give assurance that the individual project constraints are being met in the SAM analysis, and the ELFIN model (DEIS page 4.2-7) which estimates generation levels in California is correctly calibrated with SAM.

General Comments Relative to Reclamation Programs

Section 4.2.3.3--New Resource Development (pages 4.2-27).-- The IDU DEIS indicates that the option of maximum intertie development, firm contract sales for surplus power, and no restrictions on access to the intertie result in the most significant impacts on development of small hydro (277 MW by 2002) compared to limited intertie access or nonfirm contract sales (DEIS table 4.2.30). Apparently, increasing intertie capacity alone has only a small effect on the amount of new resource development. The Bureau of Reclamation currently has several hydropower proposals "on hold" for various reasons, but the main reason is the lack of demand until sometime in the late 1990's. The unlimited access policy proposal alternative coupled with firm contract sales appears to offer a greater likelihood of bringing these projects online.

The discussion of potential new power sources to be added to the intertie system raises numerous questions. The construction of new non-hydro powerplants using coal, oil, natural gas, or nuclear fuel would certainly have a profound effect on agricultural development, recreation, fish and wildlife, and many other aspects of the environment in the Pacific Northwest. The possibility that increased electrical power development within the area would preclude or, at least, limit the development of these other resources

represents a potential for broad cumulative impacts as a result of the adoption of any of the policy alternatives.

Thank you for the opportunity to review and comment upon this draft EIS.

Sincerely yours,

(Sgd) John W. Keys III

Regional Director

EA 86/137

United States Department of the Interior

BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
FEDERAL BUILDING & U.S. COURTHOUSE
BOX 043-550 WEST FORT STREET
BOISE, IDAHO 83724

Attachment
TIE-1-103

IN REPLY REFER TO: PN 150

JAN 6 1986

Ms. Donna L. Geiger
Public Involvement Manager SJ-L2
Bonneville Power Administration
P.O. Box 12999
Portland, Oregon 97212

Dear Ms. Geiger:

Our December 24, 1986, letter, concerning the draft environmental impact statement on the Bonneville Power Administration's proposed Intertie Development and Use (IDU DEIS), should be considered the Bureau of Reclamation's preliminary comments as a cooperating agency. The Department of the Interior's formal letter of comment is forthcoming and should reach your office prior to the review deadline, as extended, January 16, 1987.

Thank you again for the opportunity to review, and comment upon, the IDU DEIS. Please let us know if we can provide any interim information on our comment process.

Sincerely yours,

PAUL D. RACHETTO

Acting Area Manager, Regional Director

Attachment
TIE-1-103

UNITED STATES GOVERNMENT

memorandum

DATE: DEC 10 1986

REPLY TO ATTN OF: Division of Programs, Land and Minerals, Code 360

SUBJECT: Review of Draft Environmental Impact Statement for Bonneville Power Administration's Intertie Development, Use and Access

TO: Deputy to the Assistant Secretary - Indian Affairs (Trust and Economic Development)
Attention: Chief, Environmental Services Staff

From: Billings Area Director

The proximity of the Colstrip Power Plant to the Northern Cheyenne Indian Reservation is of some concern to the Billings Area Office. The concern rises from the fact that the Northern Cheyenne Reservation has been designated as a Class I air quality area. It is the Northern Cheyenne Tribe's desire to maintain that pristine air quality. We are of the opinion that the air quality for that region can be maintained if the present coal consumption and power generation from the Colstrip Plant continues. Studies have been concluded which indicate that even with all four generating plants operating, the air quality on the reservation could be maintained.

This office is concerned that if the proposed intertie is completed, perhaps too many long-term firm contracts will be initiated with power users in California and the southwest. Such contracts, in conjunction with a paucity of hydroelectric power from British Columbia, resulting from an unexpected drought, could necessitate increased electricity production from coal fired steam turbine generators. Colstrip, being in the Bonneville Power Administration's (BPA) power grid, could be called upon to increase electric output. Increased output could only be met by increased burning of coal. Colstrip might be called upon for the increased power more readily than other power plants in the grid, because it is a mine mouth generation facility. This factor eliminates coal transportation costs; therefore, it would probably be the most economical way for the BPA to meet firm contract demands.

The Jim Bridger Power Plant in Wyoming is fairly distant from the Wind River Reservation. This being the case, our concerns about the coal consumption at that plant are limited.

If all air quality considerations have been addressed with respect to both the Colstrip and Jim Bridger Power Plants, this office has no other concerns which we feel should be addressed.

OPTIONAL FORM NO. 10
(REV. 1-80)
GSA FPMR (41 CFR) 101-11.6
5010-114
• U.S.G.P.O. 1985 - 491-748/20248

Since the decision to upgrade the intertie has already been made, it does seem worthwhile to note that a seasonal exchange/power from the southwest to the northwest during winter and electricity from the northwest to the southwest during summer seems a logical course of action. In that manner, hot areas can receive more electricity for cooling when they need it; and cold areas in the northwest can use electricity for heating which was generated in the southwest.

Non-firm energy sales should be maximized to prevent the necessity of spill of the Federal Columbia River Power System. It is not resource conscious to waste generated electricity by spill. Also, with respect to the Columbia System, we are pleased to note due consideration has been given for the fish and wildlife populations in and near the river.

Thank you for the opportunity to comment on this Draft Environmental Impact Statement.

Attachment
TIE-1-103

IN REPLY REFER TO
Land Services

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
PORTLAND AREA OFFICE
POST OFFICE BOX 3785
PORTLAND, OREGON 97208

JAN - 7 1987

MEMORANDUM

TO: Office of the Secretary, Department of the Interior
ATTENTION: Office of Environmental Project Review

FROM: Acting Assistant Area Director, Program Services

SUBJECT: Review of Draft Evironmental Impact Statement for Intertie Development and Use and Proposed Long Term Intertie Access Policy

General Comments

Our main concern is that no consideration is given for potential impacts to the rights and resources of the affected Indian tribes. The Stevens treaties between the United States and Indians specifically protects the reserved rights in language similar to the Yakima Treaty which states:

> "The exclusive right of taking fish in all the streams, where running through or bordering said reservation, is further secured to said confederated tribes and bands of Indians, as also the right of taking fish at all usual and accustomed places . . . ."

The fishing right of Columbia River Tribes was affirmed in United States v Oregon. As you are aware action to improve the effectiveness of salmon and steelhead management by the tribes, states and federal fish and wildlife agencies is extensive. Since the proposed action may affect fishing subject to these tribal rights, any action must be evaluated relative to federal trust responsibilities to protect treaty Indian fishing rights in the Columbia River.

Existing fish flows and improved passage facilities for salmon and steelhead are the result of extensive negotiations to mitigate for persistent adverse impacts to these fisheries resulting from hydropower production in the Columbia River Basin. Now it seems additional power generation and profits will come at the expenses of these basic mitigation efforts which are already insufficient to satisfy the prerequisites for a healthy fishery.

Estimates by the Northwest Power Planning Council (NPPC) show average annual salmon and steelhead run sizes of 10-16 million fish for the pre-development era, while current run sizes average 2.5 million fish.[1/] A subsequent issue paper estimated that of the total annual system losses of 7-14 million fish, 5-11 million were attributable to hydropower developments and operation.[2/] Continuing this impact further or placing constraints on future production and protection options for the fishery resources seems unwise.

Specific Comments Volume 1

2.3.4, Decision Package No. 4 page 2-11

In 2.3.4, last sentence, the tribes treaty right as well as other fish and wildlife programs, should also be considered by BPA when evaluating impacts from hydroelectric development.

Springtime Flows: Analytical Methods and Results pages 4.5-10 through 4.5-14

In BPA analysis, flow changes are related to the probability of meeting the existing Water Budget. The Water Budget could be modified in the future to improve survival of downstream migrants. To accommodate this potential a range of flow needs should be evaluated with a corresponding evaluation of impacts.

Spill and Flow Effects on Survival: Analytical Methods and Results pages 4.5-15 through 4.5-24

It is our understanding that many concerns still exist regarding mainstream passage of juvenile salmon and steelhead in the Columbia River system.3/ Recent requests to amend spilling operations at Federal hydroelectric projects at the request of the tribes and fish and wildlife agencies were rejected by the NPPC. Other reports support the same concerns about existing juvenile fish passage problems, yet in the analysis only optimistic (full mitigation) survival and transport parameters are utilized. Failure to recognize a range in potential impacts because of uncertainties in protection methodology leaves considerable question as to the relativeness of the BPA evaluation of Intertie impacts.

In the analysis of anadromous downstream migration survival (pages 4.5-15 to 27) BPA only evaluated changes from 1992 conditions with maximum protective measures in place. BPA has presented the percentage change to survival from pre-expansion (1992) over expanded Intertie conditions. Given these modeling parameters only minor changes in survival would be expected. However, even with optimistic model values, BPA analysis indicates that several upriver stocks show a decrease in relative survival of 1-2 percent with some stocks having a maximum of 12 percent under various power development alternatives. In BPA analysis (4.5-27) under Maximum Capacity Upgrade, several upriver chinook stocks (spring and summer) are likely to sustain significant reductions in abundance. With emphasis by the NPPC, tribes and fish and wildlife agencies to increase upriver stock production, such additional mortality is unwarranted as a result of Intertie expansion.

The system's flexibility to accommodate future flow requests by the tribes and fish and wildlife agencies to protect fish, could be reduced with the expanded powers sales. The analysis of results does not reflect this concern.

Spill and Flow Effects on Survival: Significance of Survival Changes pages 4.5-24 through 4.5-28

The recent improvements in stock escapements may not be a true index of spill and flow effects on survival. There is a reduction in interception rates of Columbia River chinook stocks because of the Pacific Salmon Treaty. This could account for some of the changes as well as improvement in marine survival. Dismissal of impacts because of recent improvement in escapements is not justifiable and it is not consistent with the objectives of the NPPC Fish and Wildlife Program or the proposed programs in the management document for U.S. v. Oregon. Being optimistic about stock status is not supportive of the management needs associated with the Indian treaty fishing rights and the tribes' proposed watershed restoration programs.

Spill Flow Effects on Survival: Possible Mitigation Measures page 4.5-28

With maximum protection factored into the BPA model it is not clear what additional measures could be taken for screening and bypass that were not already considered. Expanded hatchery production as it relates to rebuilding of natural spawning stocks poses problems, especially for Indian harvests options. Additional hatchery production would certainly impact treaty Indian fishing rights. Proposed habitat improvement can only be effective if stocks are in a rebuilding mode so reseeding can take place. Otherwise it would just be the transfer of existing populations into more suitable areas after restoration. In this regard, the proposed measures to mitigate reduced survival of downstream migrants is not sufficient.

Resident Fish Production pages 4.5-30 through 4.5-41

We are also concerned about impact to resident fish. As an example, the Confederated Salish and Kootenai Tribes are conducting studies on the lower Flathead River to determine fishery needs in this portion of the system. One aspect of the studies is to determine flow requirements for desirable fish production. As a result new flow regimes might be requested. The ability to meet these new flows could be hampered under the Intertie expansion. Other resident fishery resources might be accordingly impacted and any concerns expressed by the tribes are strongly supported. Consideration of these factors are needed in review of impacts under the results section.

Intertie Policy Volume 2

Despite BPA's review procedures for compliance of a projects impact on fish and wildlife resources (subsection C.3.c. and I.3.) the marketing opportunity created by the long term Intertie Access Policy (IAP) could increase the operation of all hydroprojects that in turn could cause harm to fish and wildlife. Within the review process the policy presumes that operation of non-federal hydroprojects will not adversely impact fish and wildlife resources (I.3.a.). Access to the Intertie should not be allowed unless a project can show no adverse impacts, not just presumed to show no impact.

REFERENCES CITED

1/ Northwest Power Planning Council, 1986. Annual Report, Draft Compilation of Information on Salmon and Steelhead Losses in the Columbia River Basin.

2/ Northwest Power Planning Council April 1986. Staff Issue Paper on Hydropower Responsibility for Salmon and Steelhead Losses in the Columbia River Basin.

3/ National Marine Fisheries Services, May 1986. A Progress Report, Mainstream Passage Problems for Juvenile Fish Before and After Enactment of the Northwest Power Act, Columbia Basin Fish and Wildlife Council.

Washington State Senate

415 John A. Cherberg Building • Olympia, Washington 98504 OW-41 • (206) 786-7455

January 19, 1987

Ms. Donna L. Geiger
Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999-ALP
Portland, OR 97212

Dear Ms. Geiger:

Thank you for the opportunity to share with BPA some comments regarding the Environmental Impact Statement on Intertie development and use. I hope that Bonneville again seeks comment before it decides whether or not to build the third AC line.

Because the Intertie is a regional resource, I believe the best policy choices for the future of the Intertie are ones that most benefit the entire region. Although many of the utilities in the region support expansion of the Intertie, I am not so sure that expansion is the best choice for the region. In particular, I am concerned that the EIS fails to address California's need for Northwest power.

The proposed expansion is designed to make Northwest hydropower available to California utilities that have not previously had access to it. If oil prices return to $30 a barrel prices, the thirst of California and Southwest utilities for Northwest hydropower may exceed the capacity of even the expanded intertie. An emphasis on firm sales combined with expanded capacity could encourage development of new resources (or completion of WNP-1 and -3) solely for export. On the other hand, if oil prices remain low, contemplated sales over an expanded Intertie may fail to materialize.

Hopefully, by the time Bonneville is ready to decide on expansion, oil and gas prices will have stabilized. A more immediate decision for BPA is the proposed Intertie access policy. Again, I believe the best choice for an Intertie access policy is the one that most benefits the entire region.

I am concerned that BPA's proposed reservation of Intertie

capacity to sell its surplus before others in the region can transmit theirs benefits Bonneville to the detriment of public and private generating utilities that also have surplus power to sell. I do not know whether the proposed access policy is best for the region, though I suspect it is not. I would suggest that the 1986 Power Plan's emphasis on regional cooperation is reason enough for BPA to take another look at its proposed access policy.

In addition, exclusion of other utilities from the Intertie, or a long delay in expansion may lead public and private utilities to construct an "Inland Intertie." Although it is questionable whether any expansion is desirable, Bonneville alone probably cannot dictate the best policy for the region.

Sincerely,

Al Williams
Chairman

AW:pp

Public Involvement Manager
BPA
P.O. Box 12999
Portland, OR 97212

January 15, 1987

Dear Ms. Geiger:

After a preliminary review of the Draft Environmental Impact Statement - Intertie Development and Use (Volumes I and II) the Upper Columbia United Tribes (UCUT) wish to express their concern with the adverse effects on anadromous and resident fish which will result with the expansion of the Intertie.

It is time that the Columbia Basin's fishery resources be placed higher on the priority list. The alternatives proposed in the Intertie EIS indicate to the UCUT Tribes that fishery concerns are once again at the bottom of the list. It is unfortunate that the current 5200 MW capacity decision is not one of the possible alternatives. That would, at the very least, provide some relief so that existing fisheries programs could begin to work.

The UCUT Tribes believe that the excess power production from the upgrade of the Intertie will go largely unsold. The price of electricity sold each year is not consistent enough to form a reliable market. Too many factors dictate the amount of electricity sold such as the price of oil. This year was a good example. The price per barrel of oil was low and the amount of electricity sold to California was also low. In fact, BPA has used this reasoning to justify not spending additional money on its Fish and Wildlife Program. Thus, we do not feel that it is justifiable to jeopardize the fisheries resource in the Columbia Basin so that power can be sold to an unreliable market in other regions. How will the Intertie effect electric rates in the Northwest? Has this been analyzed?

All of the proposed alternatives examined in the EIS will have some affect on anadromous and resident fish. Even though the net effect of any one alternative may be low, there are particular stocks of fish which will suffer adverse effects. For example, on page 4.5-18 "the DC-Upgrade alternative showed relative differences in mean survival under 1 percent for all stocks in all years . . .". But, it goes on to state that the maximum single year relative decrease in survival was 9 percent for Wells pool chinook. The UCUT Tribes are concerned that certain stocks of fish may be more affected than what the average effect indicates. We are also concerned that the simulations by the FISHPASS model may not represent a worst case scenario. We feel that these concerns should be addressed when making Intertie upgrade decisions.

The UCUT Tribes are not aware of any quantitative information that was presented in the EIS regarding the specific impact on resident fish. This is an area that requires more attention. Specific effects on each species of resident fish should be addressed.

Based on the negative effects on resident and anadromous fish stocks and the unreliability of the expected benefits from the Intertie upgrade, the UCUT Tribes can not support any of the proposed alternatives in the EIS and recommend that the Intertie be left at the existing capacity.

Sincerely,

David Geist

David Geist
UCUT Fishery Biologist

Upper Columbia United Tribes Fisheries
Research Center
Department of Biology
Eastern WA University
Cheney WA 99004

METRO

2000 S.W. First Avenue
Portland, OR 97201-5398
503/221-1646

January 14, 1987

Mr. Anthony Morrell
Environmental Manager
Bonneville Power Administration
P. O. Box 3621-FJ
Portland, OR 97208

Dear Mr. Morrell:

Re: Areawide Clearinghouse Review
Intertie Access Policy - DEIS
Metro File #8611-1

In conformance with federal Executive Order 12372, "Intergovernmental Review of Federal Programs," and state of Oregon Administrative Rule 120.30.000 - 120.30.030, "Intergovernmental Project Review," Metro serves as the designated Areawide Clearinghouse for the Portland tri-county metropolitan area. Through the Clearinghouse, Metro reviews numerous federally assisted programs. The primary purpose of this review is to assure coordination of proposed projects with state, areawide and local plans and policies. This assists the federal agencies to allocate our federal tax dollars in a way that is as consistent as possible with local views.

The proposed project has been reviewed by interested jurisdictions and agencies within the region. It has been determined that the project does not violate any adopted regional plans or policies and appears to be consistent with existing local plans and policies. Therefore, Metro recommends favorable Intergovernmental Project Review (IPR) action on this project.

If we can be of further assistance in processing this matter, feel free to call our IPR Coordinator, Mel Huie.

Sincerely,

Mel Huie for

Steven Siegel, Administrator
Intergovernmental Resource Center

SS/MCH/gl
6838C/D2

cc: State of Oregon Intergovernmental Relations Division

NOTE: Your organization is responsible for forwarding a copy of this letter to the federal agency that it is dealing with.

Industrial Customers of Northwest Utilities

700 N.E. Multnomah, Suite 1200
Portland, Oregon 97232

Kenneth D. Canon
Director

Phone
(503) 239-9169

January 30, 1987

Ms. Donna Geiger
BPA Public Involvement Manager
P. O. Box 12999
Portland, OR 97212

Re: BPA Long Term Intertie Access Policy (LTIAP)

Dear Donna:

Industrial Customers of Northwest Utilities (ICNU) supports BPA's efforts to develop a Long Term Intertie Access Policy that promotes long term electrical rate stability through the encouragement of long term firm surplus sales.

We urge BPA to explicitly provide assured access for those existing industrial cogenerators with long term contracts for sale of power out of the region. BPA should not run the risk of frustrating existing contracts resulting in the displacement of firm load in the Northwest and consequent loss of revenue to BPA.

For the same reason, BPA should consider the benefits of assured access and delivery for industrial cogeneration that may be built in the future. BPA or the region's utilities may wish to have the flexibility to commit this power to a long term sale out of the region, rather than having it displace firm load and revenues in the region.

Thank you for the opportunity to comment.

Sincerely,

Ken Canon

KC:bab/D39-T22

General File #7-0-8-200

Forestry Department

OFFICE OF STATE FORESTER

2600 STATE STREET, SALEM, OREGON 97310 PHONE 378-2560

January 30, 1987

John Taves
Project Manager
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

SUBJECT: COMMENTS ON DOE/EIS 0125, INTERTIE DEVELOPMENT AND USE

Dear John,

The Department of Forestry has reviewed the Intertie Development Use and Proposed Long Term Intertie Access Policy. Thank you for the opportunity to comment. Our concerns are in reference to the difficulty of identifying long term intertie projects and surplus capacity related to future projects that would be located in Oregon; the need to address a long term strategy for intertie development; and, a lack of information on the effects of the expanding intertie developments on Oregon's forest land base.

The California-Oregon Transmission Project provides an example of actions that increase the capacity of the Pacific Intertie by providing a third 500 KV AC transmission path between southern Oregon and central California to tie in with major transmission lines crossing Oregon. Once this route is selected, two possible intertie routes remain that could be developed in the future, if intertie capacity increases are needed. Long term intertie development plans need to be addressed by the BPA because of the impact these land use decisions have on other land uses, particularly the dwindling forest resource land base. Further, the uncertainty of the regional capacity surplus needs to be clarified so that the long term effects and potential alternatives can be brought into perspective. Ideally, these determinations would be made before selecting a final route for the California-Oregon project.

We could not find any information in the draft EIS regarding the potential environmental effects on Oregon's commercial forest lands that may result from expanding the intertie system.

In calculating impacts to the Pacific Northwest, loss or reduced productivity of crop, forest and range land should be identified separately since many of the effects of siting transmission lines crossing resource lands cannot be mitigated. These constitute direct losses and should be recognized

as such. Further, attempts to mitigate the effects on other resources, such as visuals, aesthetics, recreation, wildlife, and air and water quality, could increase the impact on the land base available and currently used for economically-valuable natural resource uses.

As you know, the effect of siting transmission lines across forest land tends to be greatest when compared with other resource uses, since 100 percent of the land area is usually removed from forest production use.

The economic effects of developing access to market "...a substantial but declining surplus of firm (hydro) power..." for BPA's and the Pacific Northwest's utilities at the expense of Oregon's principal renewable resource needs to be closely considered.

Sincerely,

James E. Brown
State Forester

JEB/RM:jp
cc: John Savage, Oregon Department of Energy

MONTANA POWER COMPANY

GENERAL OFFICES, 40 EAST BROADWAY, BUTTE, MONTANA 59701 • TELEPHONE (406) 723-5421

January 30, 1987

Ms Donna L Geiger
Public Involvement Manager
BPA
P O Box 12999
Portland, OR 97212

Re: Proposed Long Term Intertie Access Policy

Dear Ms Geiger:

Montana Power Company, in further response to BPA's request for comments on its Proposed Long Term Intertie Access Policy, wishes to acknowledge and concur in the comments supplied to you by Merrill S Schultz of the Intercompany Pool.

Mr Schultz' comments and his Alternate Long Term Intertie Access Policy represent a clear and concise statement of the principles and a suggested procedure which should guide BPA in granting access to the Intertie. We note, with particular interest, that Mr Schultz' Alternate Policy provides an uncomplicated, direct, priority access to the entirety of any resource which qualifies for a Section 9(i)(3) priority by including such access within the BPA Reservation. This is a simple, straightforward way for BPA to provide the priority mandated by statute.

We hope that BPA will favorably respond to Mr Schultz' comments as showing the way for BPA to implement our comments.

Sincerely yours,

Donald B. Gregg

Donald B Gregg
Asst Vice President -
Power System Planning

DBG/jd

cc: DO Flanagan

NORTHWEST POWER PLANNING COUNCIL

SUITE 1100 • 850 S.W. BROADWAY
PORTLAND, OREGON 97205 • (503) 222-5161

Toll free number for Idaho, Montana & Washington: 1-800-222-3355
Toll free number for Oregon: 1-800-452-2324

March 2, 1987

Mr. James Jura
Administrator
Bonneville Power Administration
P. O. Box 3621 - Routing A
Portland, Oregon 97208

Dear Mr. Jura:

The Council has not had the opportunity to fully explore all the potential issues in the proposed long-term intertie access policy. Neither have we conducted a public involvement process that is normally associated with Council decisions and comments. As a result, the Council is not in a position at this time to clearly identify all relevant issues on which it may want to comment. Here we shall comment on the aspects most clearly related to the 1986 Power Plan and the Northwest Power Act. In addition, we have instructed our staff to work with the Bonneville staff on purely technical items they have identified.

We should point out that our interest in intertie issues is only that the Plan and the Act be followed in order to insure the lowest cost energy future for the Northwest and protection of our substantial investment in fish and wildlife. We are neither interested in nor qualified to make judgments on "good" or "bad" transactions. We have no intention of siding with individual gainers or losers which might result from the proposed intertie policy.

ENERGY ISSUES

The basic goal of the Plan is to provide the region an adequate and reliable supply of electrical energy at the lowest possible cost. An overriding theme of the Plan, consistent with that goal, is the recognition of major benefits that coordinated regional action will bring. Chapter 2 of the Plan discusses the concept of Bonneville's role in regional cooperation.

The Council believes it is important that the long-term intertie access policy continues to promote regional cooperation. The policy should be consistent with the Plan's objective for intertie access policy, as stated in Chapter 9, "Action Plan":

> Design Bonneville's long-term intertie policy to provide an important mechanism for encouraging regional cooperation.

We are also concerned that the policy follow sections 9(c) and 9(d) of the Northwest Power Act. As proposed, the long-term intertie access policy appears to encourage the development of new resources that are not cost-effective. The Action Plan specifies that Bonneville's actions should be consistent with sections 9(c) and 9(d) of the Act:

> Bonneville should be guided by sections 9(c) and 9(d) of the Act in cases where long-term commitments by utilities might result in increased future costs for the region. The Council believes that both the language and intent of sections 9(c) and 9(d) of the Northwest Power Act do not allow Bonneville to serve any regional load that was served by firm resources later sold outside the region, unless the Administrator determines that the energy from the resources could not be reasonably conserved or retained for service to regional loads. (Chapter 9-22)

FISH AND WILDLIFE ISSUES

Bonneville's proposed long-term policy contains language for protecting fish and wildlife resources. The Council shares Bonneville's desire to protect ratepayer investments in and to prevent further degradation of fish and wildlife resources wherever possible. Any action in this area should be consistent with the Council's Plan and Fish and Wildlife Program.

The Council believes that one aspect of Bonneville's discussion of significant expansion of the region's intertie capacity needs clarification and additional thought. As Bonneville points out, expansion of the intertie could result in significant changes in the operation of the region's hydroelectric power system. Such changes could adversely affect anadromous and resident fish survival due to reduced river flow rates, variations in reservoir elevations or rates of change in elevation, reductions in spill at mainstem dams, or other changes.

It would be useful to have a concise discussion of the changes in system operations that could result from each intertie alternative, as well as the anticipated fish survival levels for each. Moreover, the DEIS enumerates a number of measures as mitigation for the reduced survival of migrating salmon and steelhead. The Council points out that there are problems associated with many of these measures that could seriously reduce their effectiveness. We also note that in several cases Bonneville appears to be double counting measures already in place to mitigate for past damages. Such double counting is not appropriate and should be eliminated. Indeed, Bonneville should recognize that under certain conditions the only truly effective mitigation may involve operation of the hydropower system itself and analyze alternative system operations as mitigation options.

We value the opportunity to work with Bonneville on this policy and look forward to future consultations as necessary.

Sincerely,

Robert Duncan
Chairman

A-LP

MONTANA POWER COMPANY

GENERAL OFFICES 40 EAST BROADWAY BUTTE, MONTANA 59701 • TELEPHONE 406/723-5421

W. P. SCHMECHEL
CHAIRMAN OF THE BOARD
and
CHIEF EXECUTIVE OFFICER

TIE-1-111

April 21, 1987

James J. Jura, Administrator
Bonneville Power Administration
P.O. Box 3261
Portland, Oregon 97208

Dear Jim:

The announced delays in the promulgation of the Intertie Access Policy is of very serious concern to Montana Power. Although I know you must balance competing interests, it is important to us that you expedite the issuance and implementation of the Intertie Access Policy. The fact that BPA has not established Montana Power's long-term transmission rights over the Intertie is, in effect, a denial of such rights. It has frustrated our negotiations with California utilities, especially Los Angeles Department of Water & Power.

I again encourage you to issue an Intertie Access Policy that provides assistance to Montana Power pursuant to § 9(i)(3). I am aware of your desire to protect BPA from a flood of § 9(i)(3) resources. To restate our position, Montana Power is the only utility which has perfected a § 9(i)(3) priority and we do not believe there is a huge potential of additional § 9(i)(3) resources. Moreover, it appears that the proposed policy offers BPA little, if any, protection against this potential, assuming that it does exist. As you know, the proposed policy provides the "regional" share of § 9(i)(3) resources with Assured Delivery over the Intertie. Most of the potential § 9(i)(3) resources that concern BPA are owned by "pure" regional utilities such as Portland General Electric, Puget Sound Power & Light, Seattle City Light, City of Tacoma and Snohomish PUD. If resources owned by such utilities receive a § 9(i)(3) priority, such resources would be entitled to Assured Delivery under the proposed policy.

BPA's listing of potential § 9(i)(3) resources shows that the "regional" share of such resources represents over 3000 megawatts. Under the proposed policy, Assured Delivery would be granted to this entire block assuming it receives a § 9(i)(3) priority. Jim, I am sure that BPA does not want such exposure and will revise its treatment of the § 9(i)(3) priority in the Intertie Access Policy. I urge you in that revision to establish a method which both protects BPA and provides Assured Delivery for Montana Power's 210 megawatt share of Colstrip Unit 4.

ASSIGN: JJones - P
cc: JJJ, RER, SGH, JSR, Larson-AR, Sienkiewicz, Spigal, **Geiger**
sjs

I will call to arrange a meeting with you to discuss our concerns and positions on a number of issues related to BPA's Intertie Access Policy.

Sincerely,

Paul Schmeltzer

WPS/pdt

S190

FRIENDS OF THE EARTH

10 June 1987

DBL 1099
3ACP-3

Honorable George Miller
House Office Building
Washington, D.C 20515

cc: I. Graetzer

Dear Representative Miller:

Friends of the Earth (FOE) is concerned about discussions concerning the expansion of the Pacific Northwest/Southwest Electrical Intertie. Ongoing disputes and lawsuits concerning the impacts to fish and wildlife of current and future operation of the Northwest power system should be resolved before completing a third AC transmission line is even considered. The third AC line should be completed only if it will clearly help decrease the need for building new power plants in the Northwest and Southwest and reduce environmental impacts of power system operation.

FOE is aware of a growing controversy regarding the ownership of the third AC line. FOE understands that the Northwest portion of the third AC line is already largely in place and currently owned by the Bonneville Power Administration, Portland General Electric, and Pacific Power and Light. FOE has participated in the development of BPA's Intertie Access Policy. FOE is quite pleased that BPA has included strong provisions in the Intertie Access Policy to keep environmentally destructive generating resources from gaining access to the Intertie. These environmental safeguards benefit not only the people of the Pacific Northwest, but people in the Southwest and throughout the nation. If the third AC line is completed, regardless of who owns it, we expect that the environmental safeguards required for access will be at least as strong as those included in BPA's intertie Access Policy. Furthermore, if the third AC line is completed, and again, regardless of ownership, we expect that both the direct impacts of constructing the transmission line and the consequent impacts of affected power system operations will be subject to full environmental review under NEPA.

While FOE is not prepared to take a stand at this time concerning the proper ownership of the proposed third AC line, we feel very strongly that this decision should be made only through an open, public process -- not through a committee appropriations bill. Decisions regarding the Northwest/Southwest Intertie affect millions of people

Northwest office: 4512 University Way NE, Seattle, Washington 98105 (206) 633-1661

living in the western.states and people throughout the country who value the west's rich natural resource heritage. Public participation in the form of regional hearings and opportunity to submit written comment will be crucial to protecting the public interest and the environment. FOE looks forward to continued opportunities to participate in decisions regarding all aspects of the Northwest/Southwest Intertie.

We respectfully request that this letter and the attached comments concerning BPA's Intertie Access Policy be included in the record of public comment concerning BPA's Intertie Access Policy and any appropriations bills that might affect the ownership of the third AC transmission line.

Sincerely,

MSR

Michael S. Rossotto
Research Associate

MSR:jwp

cc: Representative Aucoin
Representative DeFazio
Representative Dicks
Representative Swift
Northwest Conservation Act Coalition
Jim Jura

FRIENDS OF THE EARTH

16 January 1987

attachment
TIE-1-112

Donna L. Geiger
Public Involvement Coordinator
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212

Dear Ms. Geiger:

We have received and reviewed both Bonneville's Draft Environmental Impact Statement on Intertie Development and Use and the Natural Resources Defense Council position paper on this document. The following are the comments of the Northwest Office of Friends of the Earth.

We would like to join with NRDC in complementing Bonneville for building some fairly strong fish and wildlife protection into the Section C Conditions for Intertie Access. There is simply no justification for negative impacts to fish and wildlife resulting from energy export through the Intertie.

We would like to endorse NRDC's views that Bonneville should condition transmission access for other utilities' long term sales on a waiver of any Bonneville obligations to replace any part of the power involved; that Bonneville should investigate environmentally preferrable alternatives to current operating procedures in order to reduce coal-related pollution from export sales; and most importantly, that Bonneville should investigate and develop mechanisms to guarantee that conservation can compete on equal terms with power plants for export sales. In addition to endorsing these NRDC positions, we have the following concerns regarding the Intertie Access DEIS.

We do not understand why "New Hydroelectric Plant" is defined as existing only within the Columbia River Basin. Hydroelectric development poses the same potential impacts outside of the Columbia Basin as it does within the Basin. Indeed, given the concentration of electric load growth in the Puget Sound area and the willingness of certain utilities to develop new hydroelectric resources in this non-Columbia Basin area to serve both local and Southwest loads, we see non-Columbia Basin hydro development as being equally serious as new Columbia Basin development. We would like to see the Final EIS include all new hydro development throughout the region in its definition of "New Hydroelectric Plant", or at the very least explain why new non-Columbia Basin hydro projects are not included in the definition and explain how these projects would be reviewed before being allowed access to the Intertie.

Northwest Office 4512 University Way NE Seattle, Washington 98105 (206) 633-1661

Section C.3.c.(1) prevents new hydroelectric plants that have substantial adverse impacts on fish and wildlife from gaining access to the intertie. We would rather not see this provision limited to projects located within the Columbia Basin as discussed above. We would also like to see this section expanded to include projects which will contribute to adverse cumulative impacts on fish and wildlife resources. Cumulative impacts have been recognized as a serious problem by resource agencies, Indian tribes, the Northwest Power Planning Council, the Federal Energy Regulatory Commission and virtually every other entity involved with licensing, constructing or operating hydroelectric facilities. There is no reason for Bonneville not to acknowledge cumulative impacts in this extremely important policy document. Furthermore, both the Federal Power Act and the Northwest Power Act acknowledge that power development has the potential to affect non-power resources beyond just fish and wildlife. Recreational and scenic values along with water quality and other environmental values should be included specifically as values to be protected from export energy development. Finally, Appendix IIb of the Northwest Power Planning Council's Fish and Wildlife Program which establishes requirements for Bonneville financial assistance to new hydroelectric development throughout the region should be recognized as one of the conditions for granting access to the Intertie.

Section E.8.a.(2)(a) should also address the potential for new hydroelectric development to contribute to adverse cumulative impacts to fish and wildlife resources.

We hope that these comments are useful to Bonneville in improving what we find to be a generally sound Intertie Access Policy. We look forward to having our specific concerns addressed in the Final Environmental Impact Statement.

Sincerely,

Michael S. Rossotto

Michael S. Rossotto
MSR:dim

Public Generating Pool

G.R. Gorman
Administrative Comm. Chmn.
c/o Seattle City Light
1015 Third Ave.
Seattle, WA 98104
(206) 625-3126

E. W. Lubking
Operating Comm. Chmn.
c/o Chelan Co. PUD
P. O. Box 1231
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(509) 663-8121

CHELAN CO PUD • COWLITZ CO PUD • DOUGLAS CO PUD • EUGENE WATER & ELECTRIC BOARD • GRANT CO PUD • SEATTLE CITY LIGHT • TACOMA CITY LIGHT

Double Logged
LTIAP 2-65
Also Logged
TIE-1-113

October 28, 1987

Public Involvement Manager
Bonneville Power Administration
P.O. Box 12999
Portland, OR 97212

Public Involvement Manager:

These comments are submitted on behalf of the Public Generating Pool (PGP), a consortium of seven public generating utilities who are also computed requirement customers of the Bonneville Power Administration (BPA). The membership of the PGP includes Chelan County PUD, Cowlitz PUD, Douglas PUD, Eugene Water and Electric Board, Grant County PUD, Seattle City Light, and Tacoma City Light.

Introduction

The PGP has participated actively in the 3rd AC process including participating in the Peer Review Panel. Members of the PGP are very interested in the participation study and the various options which BPA may consider and will assist BPA in completing its studies in a timely and thorough manner.

The PGP members consider the 3rd AC Intertie one of the most important decisions facing the region. We are very much aware of the critical balance which must be achieved between all components relating to intertie decisions whether they be particular to the DC upgrade, the 3rd AC, intertie policies, marketing, or participation options. We also recognize the importance of maintaining public involvement in all of these forums in order to minimize the potential for any inadequacies.

Members of PGP appreciate the perplexity faced by BPA in dealing with current marketing and intertie policy decisions. We agree with BPA's assessment of the importance of moving forward with a long-term Intertie Access Policy and with BPA's concern with proceeding on these issues in a timely manner. We do, however, have serious concerns that BPA pay particular attention to its procedural and administrative requirements in taking action on these matters.

The comments which follow are intended to strengthen BPA's Record of Decision in light of the vulnerabilities associated with processing, in a tiered-fashion, several interrelated issues; i.e., Intertie Access Policy, DC Terminal Expansion, Marketing Policy, 3rd AC

Intertie and Non-federal Participation. Our comments: (1) encourage BPA to take a tiered approach with this study and other related processes; (2) suggest language for inclusion in BPA's Final Environmental Impact Statement (EIS) on Intertie Development and Use (IDU EIS); (3) encourage BPA to broaden its Study Options; (4) comment on the proposed evaluation criteria; (5) discuss the value of a public process; and (6) suggest a basis for determining price.

The PGP Supports Tiered Analysis

It is our understanding that BPA's objective is to complete a Record of Decision which addresses the Intertie Access Policy, DC Terminal Expansion and BPA's Marketing Policy no later than May of 1988. We also understand that BPA plans to then proceed with decisions with regard to construction of the 3rd AC Intertie and participation by Non-federal entities. PGP members endorse this tack because our interest in participation will be, to a certain extent, contingent upon the May 1988 Record. Our endorsement, however, is offered with caution.

Our caution is offered in recognition of the difficulty in processing interrelated issues when interdependent issues are separated for analysis and decision. Improper documentation of the interrelationship between issues can raise serious questions regarding NEPA compliance. This dilemma has been characterized as the "tiered" versus "non-tiered" approach. While the PGP believes that a non-tiered approach to policy and environmental analysis may be more defensible, it is not conducive to the scheduled completion of the Intertie Access Policy and could be considered too broad or replete with unknowns to allow adequate study or public comment. For this reason, we support the tiered approach, again, with caution.

The Purpose and Need Statements of the IDU EIS Should be Modified

A successful tiered approach requires some updating of the IDU EIS. The EIS, in part, discusses the interrelationship of issues and segmentation of analysis which was to be performed. Since this draft was prepared, however, several events have occurred which necessitate rewriting before being finalized. Some of the more important events include Court decisions regarding DC Terminal Expansion environmental analysis, the Congressional request to study and consider Non-federal participation in the 3rd AC Intertie and BPA's decision to include a Marketing Policy in the proceeding. Given the need to rewrite these portions of the IDU EIS, there is ample opportunity to address the potential tiering problem.

An important key in tiering is a discussion which indicates: (1) how near-term decisions will not preclude future options or segmented

issue alternatives; and, (2) how subsequent actions will not necessitate revisiting decisions made as a part of a current proposal (or, if so, how it will be done). This concept and the specific redrafting of the IDU EIS described above are central to a successful tiered or segmented process.

With proper crafting, the IDU EIS can serve as the "theme" or program document upon which other decisions and analysis will be be based. To accomplish this objective the scope of the IDU EIS needs expansion and the purpose and need for the proposed action redefined.

The current statements refer almost exclusively to the transfer of federal power even though the policy deals with Non-federal use of facilities. The analysis provided in the IDU EIS addresses Non-federal use for specific purposes which are not reflected in the introductory statements. Modification is necessary in order to express the broader scope of the need to enable power transfers between the Northwest and Southwest. The Non-federal entities interested in transactions with the Southwest, namely the PGP members, are willing to provide the necessary statements of marketing objectives in order to broaden the considerations essential to defining the broader scope. In addition, the "Marketing" concept which BPA has indicated will be addressed in the May 1988 Record of Decision, needs to be written into these statements.

The Proposed Study Options Should Not limit BPA's Analysis

Whether through policy or ownership, the PGP members have a need for intertie access. The PGP members generate a significant portion of the region's nonfirm generation, generate firm surpluses during various seasons during any given operating year and, are active in resource and conservation development. At this point in time, direct access via ownership, subscription, or lease by the pool or by some member utilities is sought. We consider Non-federal participation critical to ensuring efficient regional and inter-regional resource planning and operations.

The participation "Study Options" displayed are varied and with the addition of the "total federal" and "total Non-federal" options represent the full range of potential outcomes. We understand that these options were developed for the purpose of illustration and to elicit comment. Rather than offering specific suggestions as to how these options could be reconstructed (because any number of options are possible) we suggest that the option elements be refined. Specifically, it would be helpful to specify the options elements and define the range of alternative conditions associated with each element.

The elements which are used to describe the options are numerous. They are not, however, used consistently; sometimes an element describes two options, sometimes all five, etc. Figure 2 attempts to provide some consistency between the elements although the bridges between the five options and Options A through D are not clear. We suggest that Figure 2 be expanded to include all of the elements used to describe the options such as federal and Non-federal marketing programs, Intertie Access Policy, Fish and Wildlife provisions, New Resource development, BPA/PGE/PP&L approval, financial arrangements between BPA and Non-federal participants, compensation for transferring rights, etc.

These elements can then be mapped relative to current conditions as being more or less encouraging of Non-federal participation. In a sense, we are returning to the continuum concept which will provide a map for placing the specific options which have been identified into perspective. In this context, BPA would enable broader study and avoidance of any claims that some options (or combination of elements) have been ignored.

BPA's Evaluation Criteria is Too Limited

The proposed evaluation criteria are a good start but need to be broadened. Our concerns start with the lack of any definitions of the criteria listed. For example, how does BPA define "public involvement"? which is basic to evaluating whether more or less Non-federal participation will alter public involvement. This comment applies to the need to define economic impacts, environmental impacts, characterizing resources as "good" or "bad", and the other concepts captured in criteria 5. and 6.

We also suggest that some very important evaluation criteria needs to be added. Specifically, the legal issues need to include consistency with BPA's Power Sales Contract, the Regional Power Act and other organic statutes. The effect that participation has on encouraging transactions over the Intertie as well as efficient resource use within and between interconnected regions needs to be included.

The Public Process is Basic to a Successful Effort

We have no specific comments regarding the Public Process outlined on page 6. We agree with the stated purpose: "to inform...and, to seek public input." We endorse the Peer Review Group concept and we take BPA's request for comments seriously. We suggest that the scheduling of these group meetings could be improved so that any changes in BPA's approach or concepts discussed during the sessions could be addressed in written comments submitted thereafter.

The Proper Price of Facilities Should be Based on Cost

As noted in the Intertie Update, determining the proper price is of substantial importance. The PGP members recognize the value of the current Intertie facilities and the potential value of an expansion. The proper price, however, must be based upon the fully allocated cost of the facilities.

In conclusion, we are interested in participating in a successful process with BPA and its customers. We hope that you find our comments helpful.

Sincerely,

C.R. Carman, P.E.
Managing Agent,
Public Generating Pool

CCO:jm

PNUCC

PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE

September 28, 1987

LTIAP-2-65

Double Logged

TIE-1-114

CC: ALG

Mr. Jim Jura
Bonneville Power Administration
905 N.E. 11
P.O. Box 3621
Portland, Oregon 97208-3621

Dear Jim:

The PNUCC Board of Directors, at its September 25, 1987 meeting, discussed the numerous problems and concerns surrounding the draft Intertie Access Policy and draft EIS on Intertie Development and Use.

The Board was sympathetic with your situation and understands the complications you face. We are especially concerned about the recent developments with the Ninth Circuit Court of Appeals lawsuit which seems to be complicating all aspects of the BPA Intertie initiatives.

As a result of our discussion, the Board asked me to communicate the following requests for and/or support of BPA actions in the near future.

1. While we understand the complex nature of the issues surrounding the draft Intertie Access Policy, we urge you to develop whatever means necessary to enable you to put a long-term policy in place as soon as possible. We appreciate the efforts you have personally made to listen to all concerned and to tirelessly explain BPA positions. As we have discussed earlier, to culminate these exchanges of positions PNUCC will host a discussion forum in October with an invitation to you as Administrator to participate. Your efforts with the Northwest electric industry over the last nine months have helped greatly in developing a more productive working relationship. Prompt implementation of the policy will help capture the spirit of regional cooperation that seemed unattainable only a year ago.

2. To ensure the earliest adoption of the long-term Intertie Access Policy, we strongly support the separation and finalization of the draft EIS dealing only with the issues of the long-term policy as soon as time frames within NEPA allow. The utilities are prepared to support BPA in this early adoption in any manner possible.

3. We also urge BPA to bundle all the other Intertie issues into a second and/or supplemental EIS dealing with DC Upgrade, Third AC, etc. We request that this EIS be completed as soon as the law allows.

INFO ONLY: SIENKIEWICZ/POLLOCK
cc: JJJ, JSR, SGH, Wright(P3),
Klinger, Geiger

amy

PNUCC 520 SW SIXTH AVENUE, SUITE 505 PORTLAND, OR 97204 (503) 223-9343

4. We continue to strongly support your efforts to "hold the line" on any attempts to lever BPA into large scale spill programs as settlement to the DC upgrade lawsuit. To be precise, we urge you to "reel in" all offers of settlement, in particular we are concerned about spill since it is a totally inappropriate settlement for the complaints found in the lawsuit.

We hope our suggestions and offers of support will assist you in resolving these complex and perplexing problems. Please do not hesitate to ask if there is anything PNUCC staff or Board members can do to provide additional help.

Sincerely,

Al Wright
Executive Director

AW:104

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL
BOISE 83720

JIM JONES
ATTORNEY GENERAL

TELEPHONE
(208) 334-2400

LTIAP-2-66
Also logged
TIE-1-115

October 23, 1987

James J. Jura, Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

Re: NEPA Compliance for Proposed Long-Term Intertie Access Policy

Dear Jim:

As you are aware, the Bonneville Power Administration is in the course of preparing an environmental impact statement on Intertie Development and Use [IDU EIS]. At last report, the IDU EIS included a number of intertie-related proposals, including the proposed Long-Term Intertie Access Policy ["LTIAP"], AC Intertie Expansion Project, and long-term firm power sales contracts. In addition, BPA has recently announced its intention to add the DC Expansion Project to the IDU EIS. The inclusion of all of these proposals in the IDU EIS is consistent with the position of this office that BPA should prepare "a comprehensive, accurate and understandable environmental impact statement (EIS) covering BPA's entire out-of-region power marketing policy." (Jim Jones, Idaho Attorney General, letter to Timothy Murray, BPA, August 9, 1986).

I was disturbed to learn recently that BPA has contemplated severing the LTIAP from the IDU EIS process. Such an action would be inappropriate. BPA should take no action related to operation of the intertie until the effects of all intertie-related proposals have been disclosed in a single comprehensive EIS and BPA has adopted a mitigation plan for environmental damage. Only a comprehensive EIS will allow the public and the agency to adequately respond to the cumulative impacts of intertie operations. For instance, damage to anadromous fisheries stemming

Assign: Sienkiewicz/Pollock
cc: JJJ, JSR, SGH, Laffel, Spigal
Morrell, Klinger, Clark, Geiger, Scott

from the AC Intertie Expansion Project may underscore the need for an LTIAP that better protects salmon and steelhead. Similarly, damage to salmon and steelhead from all pending intertie-related proposals clearly suggests the need for a comprehensive mitigation plan to improve mainstem passage. These considerations must be addressed in a single forum.

The National Environmental Policy Act does not permit the LTIAP to be segregated from the IDU EIS. All intertie-related proposals now pending before BPA have cumulative impacts on the anadromous fish resource of the Pacific Northwest. All the proposals will increase turbine and reservoir mortality of downstream migrant juvenile salmon and steelhead. Where pending proposals give rise to cumulatively significant impacts, the proposals must be considered in a single EIS. 40 C.F.R. § 1508.25(a)(2).

In order to avoid further conflict, I recommend that BPA cooperate with the region's fisheries agencies and tribes to solve our severe mainstem fish passage problems before rushing forward with plans to expand out-of-region power sales. I hope that solutions to mainstem passage problems will emerge from a comprehensive IDU EIS process. This course would also provide a better opportunity to assess the overall economic viability of BPA's surplus sales program and to understand its long-term impact on power supply and costs for northwest ratepayers. As always, I am ready to discuss appropriate mitigation measures with you.

With best wishes, I am,

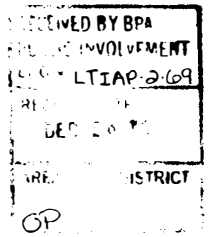
Sincerely,

JIM JONES
ATTORNEY GENERAL

JTJ/tg

DEC 10 1987

F/NWR5



Also Logged: TIE-1-116

Mr. Roy B. Fox
Environmental Coordinator
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208

Dear Mr. Fox:

The National Marine Fisheries Service (NMFS) remains concerned about the continuing potential for negative impacts on anadromous fish due to expansion and operation of the Intertie. We support the Bonneville Power Administration's (BPA) efforts to address the potential negative fish impacts of new hydroelectric development due to incentives provided by Intertie expansion and use. However, we do not believe that the proposed Intertie Access Policy (IAP) has adequately addressed the fish protection required for existing hydroelectric projects with access to the Intertie.

BPA has asserted that laws and regulations pertaining to fish protection at existing hydropower projects are sufficient to allow the presumption that projects presently in operation, because they are, in fact, meeting existing laws and regulations, are not damaging to fisheries. We firmly assert that this presumption can result in operation of hydropower projects damaging to fish. Hydropower facilities, while operating within the constraints of existing laws and regulations, block or impair fish passage, provide inadequate flows or other operational regimes detrimental to fish, and cause mortalities to juvenile fish passing through hydroelectric turbines. Also, project-caused losses may not be fully mitigated or compensated for under license or operating plans.

Enclosed is a list of presently operating hydroelectric projects damaging to fish. This list is by no means complete, but is presented here as an example of the types of projects presently operating in the Pacific Northwest, licensed or unlicensed, which do not meet full fish protection requirements.

We believe that it is the responsibility of BPA to restrict Intertie access only to scheduling utilities that obtain power from existing hydropower projects that meet full protection/mitigation/compensation requirements. We believe that for BPA to meet its obligations to protect, mitigate and enhance fish and wildlife, BPA must address the negative fish impacts resulting from the operation of existing, as well as new, hydropower resources with access to the Intertie. In addition, BPA must consider the institutional impediments to improved fish conditions that will result from an expanded Intertie. The increased pressure to market power over the Intertie will likely make fish flow programs more difficult to obtain and implement.

One approach to fish protection relative to Intertie access is to incorporate an IAP requirement that a scheduling utility provide BPA with a list of resources scheduled to be operating during periods when that utility has power sales on the Intertie. If a hydropower resource not meeting full fish protection requirements is listed as a resource for a utility prior to a proposed Intertie sale, BPA could deny Intertie access. If all hydropower resources listed meet full fish protection requirements, then BPA could provide access. Resources could be easily added or deleted from the established resource list for each scheduling utility as projects are added or removed from the utility's resource "stack."

We also recommend that BPA address the substantial negative fish impacts of Federal hydropower operations on the mainstem Columbia and Snake rivers. BPA's own analyses have determined that operation of the Federal hydropower system to provide power for sales on the Intertie significantly reduces the survival of numerous anadromous fish stocks in the Columbia Basin. For BPA to meet its statutory obligations and take into account the Fish and Wildlife Program's interim goal of doubling the fish runs returning to the Columbia River, any reduction in fish survival is unacceptable. Reduced fish survival due to or facilitated by Intertie expansion and use must be mitigated to the fullest extent practicable. Reduced survival that cannot be fully mitigated for must be compensated for, the end result being no reduction in fish survival due to Intertie expansion and use.

In summary, BPA must address fish protection for both existing and future hydropower resources relative to Intertie development and use. We bring your attention to the Northwest Power Act which requires that BPA use its statutory authorities "to protect, mitigate, and enhance fish and wildlife to the extent affected by the development and operation of any hydroelectric project of the Columbia River...." (16 U.S.C. & 839b(h)(10)(A) (emphasis added).

We request that these comments be included as part of the record with other comments on the Intertie Development and Use Environmental Impact Statement so that they may contribute to improved fishery provisions in the IAP.

Sincerely,

Einar Wold
Acting Division Chief

Enclosure

cc: CBFWA
CRITFC - Lothrop
WDF - Bauersfeld

Enclosure
NMFS 12/10/87

FERC NO.	PROJECT	STREAM	STATE	OWNERSHIP
460	Cushman	N.F. Skokomish	Washington	City of Tacoma
553	Gorge, Diablo, Ross	Skagit River	Washington	City of Seattle
588	Elwha	Elwha River	Washington	Crown Zellerbach
2114	Priest Rapids, Wanapum	Columbia River	Washington	Grant Co. PUD
2145	Rocky Reach	Columbia River	Washington	Chelan Co. PUD
2149	Wells	Columbia River	Washington	Douglas Co. PUD
2150	Baker	Baker River	Washington	Puget P & L
2195	River Mill Faraday North Fork	Clackamas River	Oregon	Portland G. E.
2233	T.W. Sullivan	Willamette River	Oregon	Portland G. E.
2342	Condit	White Salmon River	Washington	Pacific P. & L.
2510	Walterville	McKenzie River	Oregon	City of Eugene
Unlic.	Allison Creek	Allison Creek	Idaho	Guy Carlson
Unlic.	White River	White River	Washington	Puget Power & Light
Unlic.	Electron	Puyallup River	Washington	Puget Power & Light
Unlic.	Wapatox	Naches River	Washington	Pacific P. & L.
Unlic.	Albany	South Santiam R.	Oregon	Pacific P. & L.