Federal Marketing and Joint Ventures Administrator's Record of Decision

U.S. Department of Energy
Bonneville Power Administration
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Non-Federal Participation in AC Intertie

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By this Record of Decision, the Bonneville Power Administration (BPA) adopts the Federal Marketing and Joint Ventures alternative to guide future BPA contract negotiations involving use of the Pacific Northwest-Pacific Southwest AC Intertie (Intertie). The Federal Marketing and Joint Ventures alternative constitutes a comprehensive BPA marketing objective for the Intertie. To implement this concept, BPA intends to negotiate an array of flexible, market-oriented contracts, expanded Intertie access for non-BPA parties, efficient use of Federal Columbia River resources, and facilitation of efficient, coordinated west coast development of generating resources. Federal Marketing and Joint Ventures will facilitate non-BPA Intertie access in a manner consistent with the National Energy Policy Act of 1992 (EPA 92).

Federal Marketing and Joint Ventures was studied in BPA's Non-Federal Participation in AC Intertie Environmental Impact Statement (NFP EIS). It was BPA's preferred alternative for BPA Intertie Marketing. The NFP EIS identified the overall need to be met by alternatives under consideration: BPA and other Pacific Northwest (PNW) entities need interregional transfers with the Pacific Southwest (PSW) region using the Intertie. The alternative selected must meet this need and serve all the stated purposes to the best degree possible.

In the NFP EIS, BPA identified the following purposes:

1. Provide fair Intertie access to non-Federal parties;
2. Support BPA's obligation to assure recovery of the costs of the Federal Columbia River power and transmission systems;
3. Support acceptable environmental quality; and
4. Benefit overall economic and operational efficiency of the PNW and PSW systems connected by the Intertie.

Federal Marketing and Joint Ventures meets the need and serves the purposes to a better degree than No Action. BPA considers Federal Marketing and Joint Ventures to be the environmentally preferable alternative in that it encourages long-term coordination of west coast generating resource development and operation. This provides the greatest opportunity to decrease generation of more environmentally harmful plants which would otherwise have greater effects on air, land and water, and to avoid construction of new generation plants. There may be adverse environmental impacts due to implementation of the open transmission access requirements of EPA 92 which may encourage development of new generating resources. Federal Marketing and Joint Ventures also allows BPA to make better commercial use of PNW hydro flows for endangered fish.

Chapter 1: Background on BPA Intertie Marketing

In 1964 the Bonneville Power Administration (BPA) received authorization from Congress to construct two 500 kilovolt (kV) alternating-current (AC) lines and one 1,000 kV direct-current (DC) line to California. These lines are referred to as the Pacific Northwest-Pacific Southwest Intertie (Intertie).

The Intertie has historically been used by BPA and non-Federal parties for a variety of transactions between the regions. In 1988, BPA considered general principles of Intertie use when it completed the Intertie Development and Use Environmental Impact Statement (IDU EIS) assessing alternatives for BPA marketing and transmission access for non-BPA parties. Following the IDU EIS, BPA decided to increase the size of the Intertie with the Third AC expansion, entered into new long-term bilateral arrangements with California parties, and implemented a strategy of diversifying its contractual arrangements. Also pursuant to the IDU EIS, BPA adopted the Long-Term Intertie Access Policy (LTIAP) which governed non-BPA access to the Intertie. The 1988 LTIAP included access provisions for joint venture arrangements between BPA and PNW non-Federal parties.

Changing circumstances have accumulated over the intervening years. West coast electric power needs have somewhat changed the pattern of use of the Intertie. BPA's need to use the Intertie has also changed to some extent in response to load and resource balances and operating requirements for Columbia River hydro facilities. National legislation in EPA 92 has facilitated the opening of transmission access by all parties.

Chapter 2: Overview of Federal Marketing and Joint Ventures Decision

BPA's decision on Intertie Marketing and Joint Ventures constitutes a comprehensive marketing objective for use of the Intertie. It's key features are as follows:

2.1 Array of Flexible, Market-Oriented Contracts

BPA's decision is to pursue a flexible, market-responsive array of short- and long-term transactions using the Intertie in both directions. Possible contracts are likely to contain mixtures of products and services and could serve multiple objectives for the parties, e.g., resource deferral, generation /fuel displacement, revenue gains, reliability and stability, shaping, or storage. Possible contracts may transfer electric power across the Intertie primarily in one direction from north to south or south to north, or they may involve transfers in both direction. Products and services BPA may provide include sales of firm power, capacity or energy with variously-shaped deliveries, return or exchange firm energy, storage or other power-related services, and exchanges involving no cash transfer.

2.2 Potential Parties

Transactions under the proposed action may be bilateral or multiparty. BPA is currently examining firm uses of the Northern Intertie between the PNW and Canada in the Bellingham Area Reinforcement Environmental Impact Statement (Bellingham EIS). The Bellingham EIS will support decisions on firm transmission between Canada and the PNW which will necessarily affect Canadian access to the Southern Intertie. BPA expects Canadian parties as well as PNW parties to be active participants in the future use of the Intertie.

2.3 Use of Federal Columbia River Resources

BPA would use electric power generated by Federal Columbia River Power System (FCRPS) resources as available, consistent with operating requirements for nonpower purposes. The National Marine Fisheries Service is currently acting on petitions to protect certain anadromous fish species in the Columbia and Snake River systems. Operating requirements for Federal hydroelectric facilities within these river systems will be subject to decisions made under these processes. Also, BPA, the U.S. Army Corps of Engineers (USCOE), and the U.S. Bureau of Reclamation are jointly conducting the System Operation Review (SOR) process, which is a public review of the multipurpose operation of Federal hydro facilities in the Columbia River Basin. The SOR process will determine the long-term operating requirements necessary to serve the multiple purposes of the Federal facilities, including power generation, fisheries, recreation, irrigation, navigation, and flood control. The resulting decisions on operating requirements will apply to power operations for Intertie transactions and all other BPA power transactions. BPA's proposed action here will be implemented consistent with ESA requirements and the SOR decision process.

2.4 New Resource Development

BPA does not expect to require new generating resource additions to serve transactions under Federal Marketing and Joint Ventures but would use available surplus capacity and energy from its existing resources. The Federal Marketing and Joint Ventures action is intended to reduce long-term BPA resource acquisition compared to the No Action alternative.

New non-Federal generating resources may be used to support Intertie joint venture contracts under this action. BPA's action is not intended to encourage development of non-Federal resources for Intertie contracts unless such resources are otherwise consistent with the resource priority principles of the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act) and the Northwest Power Planning Council's Energy Plan and Fish and Wildlife Program. Joint ventures under this action involving non-BPA resources would be consistent with BPA's policy regarding resources in Protected Areas.

2.5 Miscellaneous Issues

Any BPA sales or exchange of surplus Federal power as part of these transactions would be consistent with the requirements of applicable laws, including the Northwest Power Act Sections 5(f) and 9(c) and Public Law 88-552 (the Regional Preference Act). Any transaction in which BPA participated would be consistent with all applicable statutes.

Chapter 3: Relationship to Other Actions

3.1 BPA Business Plan

BPA is in the process of preparing a Business Plan covering BPA's full range of business activities over the next 10 years. An EIS will be prepared for the Business Plan. The Business Plan will implement strategic business objectives which are consistent with BPA's mandates and with the Reinvention of Government Laboratory in which BPA is participating. This Federal Marketing and Joint Ventures decision is consistent with the strategic objectives and the principles of reinvention of Government.

3.2 Pending Contract Negotiations

BPA is pursuing and will continue to pursue discussions regarding potential transactions with various PSW parties including City of Pasadena, City of Riverside, Imperial Irrigation District and others. BPA would give public notice of proposed contracts prior to execution consistent with the provisions of the Regional Preference Act. BPA would consider such contracts to be implementation activities under the Federal Marketing and Joint Ventures action adopted herein.

3.3 BPA Policies on Non-Federal Intertie Access

BPA is also proposing to take action on non-Federal Intertie access policies which would be addressed in separate Records of Decision. These may include Capacity Ownership and revisions to the Long-Term Intertie Access Policy.

3.4 Federal Columbia River Operations

System Operation Review (SOR). BPA, the USCOE, and the U.S. Bureau of Reclamation are jointly conducting the SOR process, which is a public review of the multipurpose operation of Federal hydro facilities in the Columbia River Basin. A Final Environmental Impact Statement is planned for 1995. The SOR process will determine the operating requirements necessary to serve the multiple purposes of the Federal facilities, including power generation, fisheries, recreation, irrigation, navigation, and flood control. The resulting decisions on operating requirements will apply to power operations for Intertie transactions and all other BPA power transactions. The proposals studied in the NFP EIS do not supplant the SOR decision process. BPA will serve its contractual obligations with its mix of resources consistent with the operating constraints applicable to each resource.

1992 Columbia River Salmon Flow Measures Options Analysis/EIS (Flows EIS) and the Interim Columbia and Snake Rivers Flow Improvement Measures for Salmon Supplemental Environmental Impact Statement of March 1993 (1993 Flow SEIS). BPA cooperated with the USCOE in these EIS's, which analyzed alternate annual hydro operating plans for periods prior to the completion of the SOR process. Biological assessments have been prepared addressing effects on potential endangered or threatened species.

Chapter 4: Environmental Analysis

4.1 Alternatives Studied in the NFP EIS

Environmental impact analysis of this proposed action was done in the NFP EIS. The Federal Marketing and Joint Ventures Alternative was compared to the No Action Alternative. No other alternatives were suggested by BPA or public comment. However, the Federal Marketing and Joint Ventures Alternative itself contains inherent options such that there was no danger that the field of inquiry was unrealistically constrained due to lack of multiple alternatives for study.

Table 1
NFP EIS Federal Marketing Alternatives

Alternative:	Features:
No Action	• Non-Federal access under LTIAP only. • All 800 MW allocated for Assured Delivery assumed fully used in accordance with LTIAP Exhibit B limitations. • Federal marketing and joint ventures with PSW parties assumed to be existing contracts only. • Third AC assumed operational.
Federal Marketing & Joint Ventures	• Assumes new BPA contracts to increase value of hydro fish operations. • New contracts would use hydro flows for fish. Contracts to be flexible as to type and size. • Example generic contracts studied: (A) 1,100 MW seasonal exchange of BPA power/capacity for fall/winter energy, (B) 1,100 MW joint venture 10-month firm power sale with 2-month power/energy exchange. • Non-Federal access via joint ventures. • Additional scenario addresses potential contracts up to 2,500 MW.*

* The NFP Final EIS Table 4-1 contained a typographical error showing this number as 2,200 MW.

4.2 Summary of NFP EIS Analysis

Environmental analysis had to take into account several substantial uncertainties while still providing useful information to the decisionmaker. The NFP EIS analytical approach can be described as 'bracketing', that is, designing study cases to capture outer ends of the impact spectrum. The analysis methodology also needed to provide a basis for judging where between the extremes any specific action or package of actions might fall. Key uncertainties were:

Columbia River Operation Requirements. One of BPA's marketing objectives was to engage in commercial transactions that would increase the economic value of Columbia River operations for fish, but such operations were in a state of considerable flux.

Transaction Types. Future transactions were unlikely to fit into neat generic formats. Individual and cumulative transaction size would be determined only by later negotiations, as would contract characteristics, which must be responsive to the customer-specific needs of a changing market.

Non-BPA New Resource Development. Involvement of non-BPA generating resources was remote and speculative both for the PNW and PSW regions. First, there is uncertainty as to what incentive effect EPA 92 may have on new generating resource development. Second, site locations are unknown and are critical to an assessment of the seriousness of impacts.

4.3 Analytical Approach and Summary of Impacts

4.3.1 Analytical Approach to Columbia River Operation Requirements

The first uncertainty regarding hydro operating requirements for fish was addressed in part by acknowledging that the NFP EIS process is not a forum for establishing hydro operating requirements. The NFP EIS description of the Federal Marketing alternative acknowledged this and stated that Columbia River flows would be used for the resulting transactions *when available*. For long-term operating requirements, the decisionmaking forum is the SOR process with its accompanying EIS. For the interim, decision-making on hydro operating requirements is done in Endangered Species Act (ESA) processes for annual operating plans. There are also appropriate NEPA documents (ROD's) providing the necessary coverage for each of these decisions. The general trend in Columbia River operations decisions has been a shift of PNW hydro generation to spring and summer from fall and winter. This trend is confirmed in the most recent ESA consultation, though it may be tempered by the Northwest Power Planning Council's strategy for salmon and the Recovery Team's Draft Report. Key assumptions in the NFP EIS are consistent with the observable trends in hydro operating requirements. Modeled studies in the NFP EIS used the latest available hydro operating assumptions.

4.3.2 Analytical Approach To Transaction Types

The second uncertainty as to contract sizes and features was addressed by use of a bounding approach in which two generic contract examples were developed specifically to capture important potential environmental effects. Past BPA studies have shown a correlation between environmental impacts and net transfer over the Intertie, that is, the difference between the total power scheduled by the parties for transfer southward and the total power scheduled northward. This correlation is due to the fact that net Intertie transfer establishes the Intertie-related need for generation by the electric power resources at either end.

Table 2 below summarizes the two examples studied. Transaction Example A was a large generic BPA seasonal diversity exchange with the PSW region. Transaction Example B was a large hypothetical joint venture consisting of firm power sold from PNW to PSW such as might be supplied by a non-BPA resource, and a seasonal power-for-energy exchange which could be supplied from BPA's fish flow energy. Example A would capture the effects of a contract or mix

of contracts that involved significant transfers in both directions while Example B would show the effects of contracts flowing primarily from north to south. Thus, Example A would show the results of transactions such as exchanges, seasonal shaping or storage agreements, capacity sales where peaking energy is replaced to the sender and exchange energy delivered, and various other contract scenarios in which electric power is delivered more-or-less bilaterally. Example B would be similar to transactions such as firm power sales, sales of resource outputs or capability, nondisplaceable contracts, and sales or exchanges with provisions that would allow the return portion to be cashed out or delivered to another PSW party. Example A shows the effects of contracts that are heavily seasonal; Example B shows effects of a contract with only small seasonality. Example A assumes that the power deliveries come from BPA's system resources; Example B assumes that non-BPA joint venture resources also provide power. Example A shows a case with mutual new resource deferral potential; in Example B, the new resource deferrals would be predominantly in the PSW.

Table 2
NFP EIS Example Cases

Transaction Example A

MONTH	BPA Delivery (Monthly Average Energy and Capacity)	BPA Receipt (Monthly Average Energy and Capacity)
January	0	680 aMW/ 0 MW
February	0	680 aMW/ 0 MW
March	0	680 aMW/ 0 MW
April	0	0
May	1,100 aMW / 1,100 MW	0
June	1,100 aMW / 1,100 MW	0
July	0 aMW / 1,100 MW	0
August	0 aMW / 1,100 MW	0
September	0 aMW / 1,100 MW	0
October	0	680 aMW/ 0 MW
November	0	680 aMW/ 0 MW
December	0	680 aMW/ 0 MW

Transaction Example B

MONTH	Non-BPA Intertie Delivery (Monthly Average Energy and Capacity)	BPA Delivery and Return (Monthly Average Energy and Capacity)
January	1,100 aMW / 1,100 MW	- 445 aMW / 0 MW
February	1,100 aMW / 1,100 MW	- 445 aMW / 0 MW
March	1,100 aMW / 1,100 MW	- 445 aMW / 0 MW
April	1,100 aMW / 1,100 MW	0
May	0	1,100 aMW / 1,100 MW
June	0	1,100 aMW / 1,100 MW
July	1,100 aMW / 1,100 MW	0
August	1,100 aMW / 1,100 MW	0
September	1,100 aMW / 1,100 MW	0
October	1,100 aMW / 1,100 MW	- 445 aMW / 0 MW
November	1,100 aMW / 1,100 MW	- 445 aMW / 0 MW
December	1,100 aMW / 1,100 MW	- 445 aMW / 0 MW

The 1,100 MW maximum level resulted from the assumed contract size and shape necessary to accomplish an idealized seasonal power-for-energy exchange of the additional fish flow energy called for under the 1991 Power Planning Council amendments to its Fish and Wildlife Program.

4.3.3 Analytical Approach to Non-BPA New Resource Development

The third uncertainty regarding environmental impacts of new generating resources could only be partly addressed for the NFP EIS. New non-BPA resources would have site-specific environmental effects that could not be analyzed in the NFP EIS since the sites are not yet known. For PNW resource development, NFP EIS analysis aimed to assess the effects of potential generic new resource development in terms of overall PNW environmental effects. BPA's analysis in its 1992 Resource Programs EIS was relied upon. The NFP EIS analysis first constructed an assumed mix of types of new resources based on PNW resource planning data from BPA's Pacific Northwest Loads and Resources Study and data on currently-proposed resources. This resulted in an assumed mix of 80 percent gas-fired combined-cycle combustion turbine and 20 percent wood waste cogeneration. Analysis was done for two levels of new resource addition: First, the approximately 900 aMW of new resource generation assumed for the 1,100 MW generic joint venture example, and second, an incremental 2,500 aMW new resource addition.

For PSW new resources, development was assumed to be consistent with California State power resource plans as contained in the California Energy Commission's 1992 Electricity Report documents. The new resource development which might result due to the incentive effect of open transmission access under EPA 92 is speculative at this time.

4.4 Summary of Impacts

4.4.1 Background Factors

The impacts of the Federal Marketing and Joint Ventures alternative must be seen in context with three key background factors. These factors tend to decrease the environmental differences between BPA's proposed alternative and No Action.

1. Factors outside the alternatives studied here have a large influence on the environmental impacts of west coast electric power operations, sometimes far outweighing that of the alternatives. Weather-related water availability, economic and other trends affecting electric load growth, and the price of natural gas change electric power generation more than the alternatives studied here, therefore resulting in greater impacts on the environment.
2. The No Action alternative includes an Intertie market which is quite active and open on a short-term economic basis. The Federal Marketing and Joint Venture alternative studied here compared to a No Action alternative assumes a very active and open economy energy market using the Intertie. The size of the Intertie is large enough for most available PNW export power. Parties with access are using the Intertie for economic transactions that achieve at least some of the environmental benefits of cooperation between the two regions. To some degree, the transactions proposed under the alternatives are simply long-term agreements to secure some of the benefits achieved on a nonfirm basis with economy energy. Long-term firm transactions have the added advantage of allowing predictable operational displacement and deferral of resource acquisitions.
3. National law and policy on transmission access is changing. Transmission access reform to the Federal Power Act (as contained in Title VII, Section 721 of EPA 92)

gives the FERC the authority to order transmission access to be provided to requesting entities by utilities that own transmission capacity. This tends to decrease the real differences between No Action and the alternative with respect to the increased development of new resources and associated environmental impacts.

4.4.2 Environmental Effects of Seasonal Exchanges and Other Predominantly Bi-directional Transfers

NFP EIS analysis indicated that environmental impacts were correlated with the net amounts of electric power transferred over the Intertie. In most cases studied, the changes were small in relative terms, e.g., below 5 percent and often below 1 percent of the base case. This was despite the bracketing approach which was intended to pick up the largest possible changes. This underscores the impact of background factor number 2 above, showing that it is the existence of the Intertie connection and its use for voluntary, as-available economic transfers between regions which has the greatest environmental significance. Policies restructuring the rights of the parties to use the Intertie, or even restructuring the commercial transactions using it (within the bounds of economic benefit), are of small relative importance compared to that overwhelming fact.

Under seasonal exchanges, transfers are bilateral such that the net transfer may only be slightly in favor of one direction or the other. In the generic example studied in the NFP EIS, the annual net transfer increased somewhat in the northward direction though the overall net transfer was still predominantly southward. The net export from the PNW decreased by 21 to 69 average annual MW, or less that 0.01 percent to 6 percent of base case total Intertie net transfer. This correlated with small decreases in PNW generation and small increases in PSW generation. The change was due to the increased exchange energy assumed to be returned to the PNW. The changes due to increased seasonal coordination between the PNW and PSW were variable and sensitive to assumed loads and hydro conditions. Resulting air pollutant emissions, for example, could increase or decrease for the same alternative as assumed loads and hydro conditions were varied. The operational changes for existing resources were generally small in magnitude whether positive or negative. Under seasonal exchange contract scenarios, PNW annual average generation of all resource types (hydro, coal, gas-fired combustion turbine) tended to decrease slightly. Firming May-June assumed fish flows shifted a small amount of PNW thermal generation from winter to May and June, as would be expected. Seasonal exchanges are associated with the environmental benefit of increased Columbia River anadromous fish passage facilitated by increased spring flows.

4.4.3 Environmental Effects of Firm Power Sales and Other Predominantly Unidirectional Transfers

Under firm power sales scenarios, net transfer of power is assumed to be predominantly from PNW to PSW. Therefore PNW emission of criteria air pollutants and other impacts of PNW power generation increase somewhat due to addition of new resources to provide the firm power. The seriousness of environmental impacts and health significance of the new emissions is dependent on siting. The increased PNW air emissions would be associated with displacement of PSW pollutant emissions. PSW air quality effects would be small compared to total California air pollutant emissions, and the overall impact would be positive. Depending on BPA's ability to negotiate joint ventures, the benefit of using Columbia River flows for fish would be present.

4.4.4 Environmental Effects of Coordinated Diversity Transactions

Modeling results combined with past contract data supports a view that some mutual PNW and PSW environmental benefits can be achieved by more coordinated seasonal operations. Generally, under generic seasonal exchange scenarios, annual average net amounts taken by PSW from the PNW decreased, correlating with increased net annual PSW air pollutant emissions. However, experience with actual short-term exchange contracts indicated that the seasonal shaping of generation may reduce overall annual nitrogen oxides (NO_X) emissions, despite the increase in annual generation due to use of plants with lower NO_X emission rates. It is possible, within economic constraints, to design seasonal exchanges that reduce both California summer emissions and total California annual emissions while reducing PNW annual thermal generation. Seasonal exchanges could also be designed which reduce California summer emissions, though increasing total California annual emissions, while reducing PNW thermal generation. Firm power sales would bring about greater reductions in California emissions, but a proportion of the power would come from added thermal generation in the PNW or other regions.

4.4.5 Resource Acquisition Changes and Environmental Effects

Seasonal exchange scenarios resulted in reduced resource acquisitions by all parties with reduction in air, land and water impacts of construction and operation. In the long run, seasonal exchanges may defer some PNW thermal resource acquisitions such as gas-fired combustion turbines which might otherwise be added to support winter service. Deferral of thermal resource construction in the PSW is also possible and, to some degree, is already incorporated into California resource planning processes. Firm power sales scenarios were linked to increased resource development to deliver power to the purchasing party. Under the generic scenarios studied in the NFP EIS, analysis showed that BPA would probably not require new resources to sustain deliveries under the example contracts. PNW, PSW or Canadian parties may have incentive to add resources to support Intertie transactions. Utilities may advance the completion of resources planned for future load growth, resulting in added conservation and renewable resources as well as thermal generation. Some utilities and independent power producers may plan resource additions exclusively for export.

There may be adverse environmental impacts due to implementation of the transmission access provisions of EPA 92. These adverse impacts would be due to development of new generating resources. EPA 92 may weaken the ability of state and regional planning and regulatory entities to encourage development of conservation and generating resource types with least environmental impacts. It may also reduce the ability of such entities to limit resource development to that which would be needed to serve overall loads. Resource development which is economic for individual entities despite the existence of sufficient already-built resources may be allowed to a greater degree due to EPA 92.

4.5 Cumulative Impacts of BPA Marketing Plus Non-Federal Access

In the NFP EIS, BPA considered alternatives for both Federal Intertie marketing and non-Federal Intertie access. BPA may adopt more than one of the alternatives or proposals which are very similar to them. The NFP EIS analyzed cumulative cases assuming adoption of the Federal Marketing and Joint Ventures alternative in tandem with adoption of the Capacity Ownership alternative (for 725 MW). Cumulative analysis was done assuming three different contract mixes:

one, both categories were filled predominantly with firm power sales from PNW to PSW; two, both categories were filled predominantly with seasonal exchanges; and three, there was a mixture of power sales and seasonal exchanges.

The mixed contract cumulative case data indicated that the net interregional transfer would tend to remain predominantly from north to south on an annual average basis. It would be expected to increase between approximately 200 aMW and 700 aMW, depending on PNW hydro availability. This amounted to a change from the No Action case of 4 percent and 19 percent respectively. This correlates with a small increase in PNW new thermal resources and a decrease in PSW generation and air pollutant emissions.

4.6 Impacts of Proposed Action and Environmentally Preferable Alternative

The proposed action described in Section 1 above falls within the bounds of the scenarios analyzed in the NFP EIS. The proposed action is the environmentally preferable alternative because it promotes coordinated use of power resources on the west coast, allows use of PNW hydro flows for endangered fish, supports displacement of fossil fuels with attendant air quality impacts and promotes deferral of new resource construction.

As described in Section 1 above, BPA's proposed action consists of a mix of potential contract types. The total size of BPA transactions will be related to the availability of Federal hydro generation and therefore must be somewhat flexible. The example transactions studied in the NFP EIS are considered to bracket the likely ranges.

The proposed action will not be a significant factor increasing the development of new thermal resources in either region. Broadened transmission access under EPA 92 and the trend among major US. electric power utilities to avoid capital investment in new generation is expected to shift new resource decisions toward the class of independent power producers. In this context, BPA's Federal Marketing and Joint Ventures action will have insignificant effects. BPA would not seek to encourage development of non-Federal resources for Intertie contracts, but for those for which Intertie access is requested, BPA would provide appropriate transmission access and pursue joint venture possibilities of mutual benefit.

The results of the NFP EIS cumulative case with mixed contract types are probably most representative of the expected impacts of the proposed Federal Marketing and Joint Ventures alternative in context with new BPA policies on non-Federal transmission access. This is because long-term west coast electric power market projections, economic uncertainty, and the risk management strategies of many utilities and utility regulators indicate that Intertie contracts are more likely to be a mix of products, including seasonal exchanges, firm power sales, capacity and other services, and economy sales.

The proposed action will not lead to significant increased PSW air pollutant emissions for the following reasons. **First**, the NFP EIS results for some large generic scenarios showed that potential increases would be small relative to PSW total air pollutant emissions. Recall that the NFP EIS analysis approach was to use large scenarios in order to capture the boundaries of possible environmental effects. Even if seasonal exchanges resulted in net generation changes of the magnitude seen in the NFP EIS analysis, annual California NO_X emissions, assuming supply from generic gas-fired combustion turbines, could increase as much as 122 to 982 tons/year. This

is small in context with California State NO_X emissions of nearly 20,000 tons/year for 1992 and over 5,000 tons/year in the South Coast Air Basin alone. **Second**, PSW parties are expected to negotiate diversity exchanges and other contracts to avoid increased air quality noncompliance. Past BPA/PSW contract negotiations on environmental exchanges have specifically sought to avoid undesirable levels of air pollutant emission. The NFP EIS cited information provided by Southern California Edison (SCE) showing an overall decrease in tons of NO_X emission due to changed generation operations under an environmental exchange agreement. **Third**, the difference between the value of PNW deliveries and PSW returns is decreasing. The relative value of PNW deliveries may decrease due to changes in seasonal gas price structure and PSW capacity surpluses. This implies that diversity exchanges will tend to involve more equal amounts of power being delivered and returned, therefore, there would be little impact on net California air pollutant emissions due to the proposal.

The proposed action will not lead to significant changes in PNW adverse impacts from operation of existing thermal generating plants. NFP EIS analysis showed that PNW thermal operation would be affected more by precipitation-related level of hydro availability than by any of the Intertie marketing scenarios. NFP EIS analysis showed that average PNW thermal generation shifted slightly from the winter season to months of increased Columbia River fish flows to support potential firm Intertie contracts. However, PNW average annual thermal generation is not expected to increase significantly even if BPA does not obtain returns of exchange energy in the amounts assumed under the generic exchange scenario because BPA would continue its usual practice of economy energy purchases via the Intertie.

NFP EIS cumulative case effects due to PNW and PSW new thermal resource development may be somewhat overstated since the latest information on economic downturns indicates that some Southern California utilities may have more near-term surplus capacity than assumed in the NFP EIS analysis. Despite this, the NFP EIS estimate of the long-term interregional net transfer is probably a reasonable range of what might be expected under the proposed action. California utilities are expected to market this near-term surplus, thus keeping annual average generation amounts roughly similar. In addition, the long-term California displacement market for PNW power as assumed for the NFP EIS is not expected to depart greatly from current projections. The future resource type of choice in both regions is expected to be gas-fired combustion turbines, both simple and combined cycle. However, NFP EIS data indicated that significant cogeneration and renewable resources are also planned by independent power producers and utilities and are generally supported by resource planning bodies such as the Northwest Power Planning Council and California regulatory agencies. These resource types have an inherently baseload nature. They would therefore provide sources for return energy to the PNW as well as serving PSW load. NFP EIS data on the planning needs of west coast utilities shows that they constitute an emphatically diverse market with some entities requiring baseload resources, others requiring peaking additions, and many parties having varied degrees of interest and ability to support diversity exchanges. This supports an expectation that power resource development will be likewise diverse in type, size, cost and timing.

Chapter 5: Adoption of Proposed Action

The proposed action meets BPA need and serves the purposes to a better degree than No Action. The NFP EIS identified the overall need to be met by alternatives under consideration. BPA and other PNW entities need interregional transfers with the PSW region using the Intertie. The alternative selected must meet this need and serve all the stated purposes to the best degree possible.

In the NFP EIS, BPA identified the following purposes:

1. Provide fair Intertie access to non-Federal parties;
2. Support BPA's obligation to assure recovery of the costs of the Federal Columbia River power and transmission systems;
3. Support acceptable environmental quality; and
4. Benefit overall economic and operational efficiency of the PNW and PSW systems connected by the Intertie.

The Federal Marketing and Joint Venture Alternative is BPA's preferred alternative for BPA Intertie Marketing studied under the NFP EIS and serves all the stated purposes.

5.1 Provide Fair Intertie Access to Non-Federal Parties

The Federal Marketing and Joint Ventures action does not imply exclusive use by BPA of its Intertie facilities or constraints on access by others. The Federal Marketing and Joint Ventures concept is consistent with the intent of EPA 92. In addition, it may facilitate access for some parties in that it provides for joint ventures with non-BPA resources where overall value can be increased for all parties. BPA is separately considering adoption of other transmission access policies studied in the NFP EIS such as the Capacity Ownership proposal and amendment of the LTIAP.

5.2 Support BPA's Obligations to Assure Recovery of the Costs of the Federal Columbia River Power and Transmission System

BPA must repay the U.S. Treasury for capital investments in the FCRPS. The FCRPS serves multiple purposes including: flood control, navigation, recreation, irrigation, fishery habitat, and other nonpower uses in addition to power generation and its transmission system. BPA plans and operates the system to provide revenues necessary to repay the U.S. Treasury to optimize the production and availability of its various products and services.

The Federal Marketing and Joint Ventures proposal assists cost recovery more than the No Action alternative by maximizing BPA's ability to offer transactions of higher value than short term economy products. Under the proposal, BPA will be best able to develop packages of products and services that serve a portion of the needs of the long-term market such that revenues will be based on deferred capital investment as well as displaced operating costs.

5.3 Support Acceptable Environmental Quality and Overall Economic and Operational Efficiency of the PNW and PSW Systems Connected by the Intertie

These purposes are addressed here commonly due to their close interrelationship. Environmental, economic and operational efficiencies overlap significantly. Federal Marketing and Joint Ventures is expected to have overall net positive effects on environmental, economic and operational efficiencies compared to the No Action alternative. BPA's Marketing and Joint Venture package is intended to be responsive to recent changes in hydro operation requirements for endangered anadromous fish species. The Power Planning Council directed BPA to seek commercial arrangements to minimize the cost of such operations to the power system. BPA would minimize the impacts of increased flow requirements for fish via diverse transactions that use such flows for better commercial value. In addition, the proposal is the environmentally preferable alternative since it enhances coordinated operation and development of west coast resources as described in the NFP EIS. The proposed action supports potential regional power planning cooperation which could lead to overall better site selection and fewer air quality noncompliance zones west coast-wide.

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/s/ John S. Robertson

Deputy Administrator