Administrator's Record of Decision

1986 IP-PF Rate Link Proposal

BPA

U.S. Department of Energy
Bonneville Power Administration

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ADMINISTRATOR'S RECORD OF DECISION

IP-PF RATE LINK

Bonneville Power Administration

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RECORD OF DECISION

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CHAPTER I

IP-PF RATE LINK

A. Introduction

On July 2, 1986, Bonneville Power Administration (BPA) published in the FEDERAL REGISTER a notice which described a proposed link between rates charged to BPA's direct-service industrial (DSI) customers and rates charged to BPA's public body and cooperative (preference) customers. 51 Fed. Reg. 24,197 (1986).

BPA sells power to the DSIs under the Industrial Firm Power (IP) rate schedule and, for those aluminum smelters electing to participate, under the Variable Industrial Power (VI) rate schedule. The charges contained in the VI rate schedule are tied to the IP rate schedule. The IP-85 rate schedule contains three rate options: the IP Premium rate, the IP Standard rate, and an Incentive rate. The IP Premium rate developed for BPA's 1985 wholesale rate filing recognizes that contract service provided to the entire DSI load is essentially firm for the current rate period, given the amount of BPA's available firm surplus projected to be sold at less than fully allocated cost. The IP Standard rate recognizes the lower quality of service to the first quartile (one-fourth) of the DSI load relative to the quality of service provided under the IP Premium rate. The Incentive rate is an option which is offered at the BPA Administrator's discretion.

BPA's preference customers currently purchase power under the Priority Firm Power (PF) rate schedule for service to their firm power loads. Preference customers also may purchase power under the New Resource Firm Power (NR) rate schedule for service to new large single loads.

The functional relationship proposed by BPA between the rates to the DSIs and the rates to BPA's preference customers is referred to as the IP-PF rate link. The IP-PF rate link is a methodology which would be used in future wholesale rate adjustment proceedings as part of the determination of the

level of the rate for contract service (the IP Premium rate or its successor) and the rate for quality of service that is less than contract service (the IP Standard rate or its successor). The IP-PF rate link is proposed to be effective for the period beginning July 1, 1985 (the effective date of the 1985 rates), through the last rate period commencing before June 30, 1990. The rate link established in the 1985 wholesale rate filing for the current rate period would be used to determine the IP rate levels for future rate periods; it would be adjusted in each subsequent rate period commencing before June 30, 1990, pursuant to the proposed formulas.

Two parties to the IP-PF rate link proceeding, the Investor-Owned Utilities (IOU) and Puget Sound Power and Light Company (PSP&L), filed testimony in opposition to BPA's initial proposal. However, these two parties withdrew their testimony later in the proceeding and the IOUs argued that the Record of Decision for the proceeding should be based solely on BPA's case. IOU, IP-PF-86-M-26, 1; PSP&L, IP-PF-86-M-25, 1. Another party to the proceeding, Mr. Austin Collins, filed statements in opposition to the IP-PF rate link. Collins, P-AC-01; Collins, IP-PF-86-M-28. Two parties, the Public Power Council (PPC) and the DSIs, filed Briefs on Exceptions. The PPC generally supported the IP-PF rate link, but opposed the potential term of BPA's proposal. Brief on Exceptions, PPC, R-PP-01, 3. The DSIs expressed support for BPA's proposal. Brief on Exceptions, DSI, R-DS-01, 1-3. The DSIs also filed a response to the PPC's Brief on Exceptions. Response to PPC Brief on Exceptions, DSI, R-DS-02.

Comments on BPA's proposal were received from five participants. The comments ranged from strong support for the proposed rate link to strong opposition.

This Record of Decision is based on BPA's initial proposal, the direct testimony of BPA's two witnesses, and comments received from participants and parties. Chapter I addresses issues related to the proposed rate link as presented in the testimony of BPA witness Robert E. Diffely, E-BPA-01. Chapter II addresses the portions of the DSI Options Environmental Impact Statement relevant to the proposed rate link, as sponsored by BPA witness Sheryl E. Palmatier, E-BPA-02. Appendix A of this Record of Decision defines and describes the proposed IP-PF rate link itself.

B. History of the IP-PF Rate Link

In recent years, the amount of electric power used by the DSIs, particularly the aluminum plants, has fluctuated and declined significantly. The changing demand for power has resulted in uncertainty about BPA's future resource planning, financial strength, and rate stability.

In the 1985 wholesale power rate proceeding, the DSIs proposed that the IP Standard rate be set equal to the PF rate on a long-term basis to provide the DSIs with increased rate stability. The BPA Administrator supported linking the IP and PF rates in some formal, long-term fashion to provide the DSIs with rate certainty for planning investments and to reduce the contentiousness of future BPA rate cases. Such a long-term link was not established in the 1985 rate proceeding, but the Administrator pledged "to facilitate the development

and adoption of a long-term policy" to link the two rates. 1985 Administrator's Record of Decision, WP-85-A-02, 245.

In 1985, BPA concluded an analysis of mid- to long-term policy and rate options available to the Administrator to address the problems caused by fluctuations in the DSI demand for electricity. BPA examined five options to assist the DSIs in maintaining their load levels: (1) a variable DSI rate tied to the price of aluminum; (2) a reduction in current DSI rates in return for increased BPA rights to interrupt DSI loads in the future; (3) an amendment to the DSI power sales contracts allowing the DSIs to purchase electricity from other suppliers who could provide more attractive rates than BPA; (4) financial support from BPA to encourage conservation and modernization investments in aluminum smelters; and (5) no action. The analysis resulted in the publication of the final DSI Options Study in June 1985. Based on the results of the draft study and public comments received on the study, BPA concluded in the final DSI Options Study that two of the options should be pursued further: (1) a variable power rate linked to the price of aluminum to be offered to the aluminum smelter DSIs; and (2) limited BPA financial support for conservation and modernization of aluminum smelters. In addition, the DSI Options Study announced BPA's decision to initiate a formal rate hearing to consider the design of a long-term link between rates to the DSIs and rates to BPA's preference customers.

In August and September 1985, BPA met with members of interested customer groups and other organizations to explore alternate ways to develop an IP-PF rate link. Several proposals were discussed at the meetings. BPA's proposed IP-PF rate link is based on a proposal developed by two of BPA's customer groups, the DSIs and the PPC.

C. Legal Guidelines

1. General Rate Guidelines

Section 6 of the Bonneville Project Act, 16 U.S.C. § 832e, requires that the BPA Administrator prepare schedules of rates and charges for electric energy. BPA's rates are effective upon confirmation and approval by the Federal Energy Regulatory Commission (FERC). Section 6 directs the Administrator to establish rates with a view to encouraging the widest possible diversified use of electric energy. Section 7 of the Bonneville Project Act, 16 U.S.C. § 832f, provides that rate schedules are to be established having regard to the recovery of the cost of producing and transmitting electric energy, including the amortization of the Federal capital investment in the generation and transmission systems over a reasonable number of years.

The Federal Columbia River Transmission System Act, 16 U.S.C. § 838, contains requirements similar to those of the Bonneville Project Act. This Act provides three specific guidelines for the establishment of rates by the Administrator: (a) to set rates with a view to encouraging the widest possible diversified use of electric power at the lowest possible rates to consumers consistent with sound business principles; (b) to set rates with regard to the recovery of the cost of producing and transmitting electric

power, including the amortization over a reasonable period of years of the capital investment allocated to power; and (c) to set rates at levels which produce such additional revenues as may be required to pay when due the principal, premiums, discounts, expenses, and interest in connection with bonds issued under the Act, including amounts required to establish and maintain reserve accounts.

The Flood Control Act of 1944 directs that the sale of electric power from certain reservoir projects take place "in such a manner as to encourage the most widespread use thereof at the lowest possible rates to consumers consistent with sound business principles." 16 U.S.C. § 825s. The Act also provides that "rate schedules should be drawn having regard to the recovery . . . of the cost of producing and transmitting such electric energy." 16 U.S.C. § 825s.

The Pacific Northwest Electric Power Planning and Conservation Act (Pacific Northwest Power Act), 16 U.S.C. § 839e, provides additional rate guidelines. Section 7 of the Pacific Northwest Power Act directs the Administrator to establish, and periodically review and revise, rates for the sale and disposition of electric energy and capacity and for the transmission of non-Federal power. The rates are to be set so that BPA recovers, over a reasonable period of years, in accordance with sound business principles, the costs associated with the acquisition, conservation, and transmission of electric power, including the amortization of the Federal investment in the Federal Columbia River Power System (FCRPS) (including irrigation costs required to be repaid out of power revenues). Other rate directives within section 7 describe how the rates for individual customer groups are derived.

2. Specific Rate Guidelines

Rates for the DSIs are to be set according to provisions contained in section 7(c) of the Pacific Northwest Power Act. Section 7(c)(2) provides that, beginning July 1, 1985, rates that apply to DSI customers:

> . . . shall be based upon the Administrator's applicable wholesale rates to . . . public body and cooperative customers and the typical margins included by such public body and cooperative customers in their retail rates . . . .

Section 7(c)(2) further provides that the rate determination must take into account:

> . . . (a) the comparative size and character of the loads served; (b) the relative costs of electric capacity, energy, transmission, and related delivery facilities provided and other service provisions; and (c) direct and indirect overhead costs, all as related to the delivery of power to industrial customers . . . .

Finally, section 7(c)(2) provides that DSI rates:

> . . . shall in no event be less than the rates in effect for the contract year ending on June 30, 1985.

Section 7(c)(3) provides that DSI rates must be adjusted:

> . . . to take into account the value of power system reserves made available to the Administrator through his rights to interrupt or curtail service to such direct service industrial customers.

3. Confirmation and Approval

The Pacific Northwest Power Act specifies in section 7(a)(2) that rates become effective upon interim or final approval by FERC. 16 U.S.C. § 839e(a)(2). FERC must review BPA's rates to determine that (a) rates are sufficient to assure repayment of the Federal investment in the FCRPS over a reasonable number of years after first meeting BPA's other costs; (b) rates are based on BPA's total system costs; and (c) transmission rates equitably allocate the costs of the Federal transmission system between Federal and non-Federal power using the system. Pursuant to section 7(i)(6) of the Pacific Northwest Power Act, the Commission has promulgated procedures for the approval of BPA rates. See 18 C.F.R. Part 300.

D. Purpose and Goals of the IP-PF Rate Link

The purpose of the IP-PF rate link is to establish a long-term ratemaking method based on results derived in BPA's 1985 rate filing. This ratemaking method will be used in future rate filings. BPA intends to submit the proposed IP-PF rate link to FERC for confirmation and approval with BPA's next general rate filing.

BPA seeks to achieve two goals through implementation of the IP-PF rate link. The first is to increase BPA's load planning certainty by providing BPA's DSI customers with improved rate predictability for the mid-term. Improved rate predictability would reduce the potential for plant closures; BPA thus would be able to forecast more accurately its resource and revenue needs. The second goal is to reduce both the need for data collection requirements and the controversy associated with setting the level of the rates charged the DSIs in future BPA rate cases.

E. Derivation and Application of the IP-PF Rate Link

1. Development of the IP-85 Rates

In its 1985 rate proposal, BPA, for the first time, developed methodologies for determining the IP rate according to the post-1985 rate directives contained in the Pacific Northwest Power Act. In prior rate filings, BPA based the IP rate on costs allocated to the DSI customer class as directed in section 7(c)(1) of the Pacific Northwest Power Act, then credited the DSIs with the value of system reserves they provide through BPA's contractual rights to interrupt portions of their loads.

The post-1985 rate directives provide for the IP rate to be derived by adding a margin, as adjusted, to an average rate based on the applicable wholesale rates to BPA's public body and cooperative customers. The resulting

DSI rate level, the margin-based IP rate, is subject to the floor rate provisions of section 7(c)(2), which provide for a minimum DSI rate level. If the margin-based IP rate is less than the floor rate, the IP rates are defined by the floor rate. The value of reserves (VOR) credit is then subtracted.

In implementing the post-1985 DSI rate directives for the 1985 wholesale rate filing, BPA first derived a fiscal year (FY) 1987 unadjusted margin for public agencies and cooperatives. The calculation used historical and prospective cost of service data for 19 utilities having 49 retail industrial consumers with a minimum of 3.5 megawatts of peak demand per consumer.

A size of load adjustment was then made to the FY 1987 unadjusted margin. The size of load adjustment accounts for the lower per-kilowatthour costs of delivery (distribution) facilities installed to serve the larger DSI loads. The result was the Premium margin, the margin which recognizes the quality of service provided under the IP Premium rate.

To derive the IP Standard margin, the margin which recognizes the quality of service to the DSI first quartile under the IP Standard rate, BPA subtracted the character of service adjustment from the IP Premium margin. The character of service adjustment accounts for the lower quality of service provided the DSI first quartile under the IP Standard rate relative to the quality of service provided under the IP Premium rate.

The IP Premium margin derived for the 1985 wholesale power rate filing was 2.82 mills per kilowatthour. The character of service adjustment to the IP Premium margin was .54 mill per kilowatthour, resulting in an IP Standard margin of 2.28 mills per kilowatthour.

To determine the applicable wholesale rate in the 1985 wholesale rate proceeding, BPA applied the PF rate charges (after all rate adjustments, except for the floor rate adjustment, PF classification, and scaling) to the forecasted DSI demand and energy billing determinants. (The sequence of any rate adjustments related to provisions of sections 7(b)(2) and 7(b)(3) of the Pacific Northwest Power Act was not resolved in the 1985 general rate case.) Had BPA's preference customers been expected to purchase power under the NR rate, the expected sales under the NR rate also would have been factored into the applicable wholesale rate calculation.

BPA added the IP Standard margin to the applicable wholesale rate to obtain the margin-based IP Standard rate. In the 1985 general rate case, the margin-based IP Standard rate was lower than the DSI floor rate. Therefore, the IP Standard rate was set at the floor rate. The difference between the IP Premium margin and the IP Standard margin, .54 mill per kilowatthour, was then added to the IP Standard rate to determine the level of the IP Premium rate.

Finally, BPA calculated the VOR credit to reflect the value of BPA's contractual rights to restrict DSI loads under certain specified conditions. The Federal generation system can use the right to restrict DSI loads as part of its system reserve requirement. The Federal system reserves provided by the DSI restriction rights are categorized into forced outage reserves, stability reserves, and plant delay reserves. The VOR analysis quantifies the

benefit resulting from BPA's contractual rights to restrict the DSI load by examining the most feasible, least-cost alternatives to providing those reserves.

The actual amount of the VOR credit to the DSIs is calculated using a share-the-savings concept. The sum of the alternative cost of providing system reserves and the cost of a restriction to the DSIs is divided by two. The VOR credit to the DSIs reflected in BPA's 1985 final wholesale rate filing is 1.90 mills per kilowatthour. This amount was applied to the final IP-85 Premium and IP-85 Standard rates.

2. Components of the Proposed IP-PF Rate Link Formula

BPA's proposed formula for the IP-PF rate link is comprised of two components: (a) the effective rate link, or the net Premium and net Standard margins, determined in the 1985 rate case; and (b) an inflation adjustment.

The effective rate link for the current rate period is based on the results presented in the Final 1985 Section 7(c)(2) Industrial Margin Study and the Final 1985 Wholesale Power Rate Design Study. WP-85-FS-BPA-04 and -05. The net Premium margin for the current rate period is .92 mill per kilowatthour, the difference between the IP Premium margin of 2.82 mills per kilowatthour and the VOR credit of 1.90 mills per kilowatthour. The character of service adjustment is .54 mills per kilowatthour. Therefore, the net Standard margin is .38 mills per kilowatthour (.92 mills per kilowatthour less .54 mills per kilowatthour). Diffely, BPA, E-BPA-01, 9.

The adoption of the margin and VOR credit calculated in the 1985 rate filing as the basis for the IP-PF rate link is appropriate for a number of reasons. First, the IP Premium rate margin, the IP Standard margin, and the value of reserves credit were evaluated fully in the 1985 rate proceeding, an extensive hearing and public review process, and were determined by the Administrator to be based on reasonable analyses and assumptions. The Premium rate and Standard rate margins were calculated using a data base sponsored by three of BPA's major customer groups, which demonstrates widespread support for the data base. Diffely, BPA, E-BPA-01, 10.

Furthermore, it is likely that the results produced by analyses updating the calculations of the IP Premium margin, the IP Standard margin, and the VOR credit would be fairly stable through the end of the effective period proposed for the IP-PF rate link. The derivations of the IP Premium margin and the IP Standard margin were based on a detailed analysis of the ratemaking policies of a number of major public utilities and the assumption that those policies would continue in effect for at least 27 months (the effective period of the 1985 rates). It is reasonable to assume that most of those policies will continue in effect for the additional period encompassed by the IP-PF rate link. However, even if there are some changes to those policies, it is not expected that such changes would affect BPA's calculation of the margin significantly. Diffely, BPA, E-BPA-01, 10.

For ratemaking purposes, the character of service adjustment for deriving the IP Standard margin was based on the assumption that 43 percent of the service to the DSI first quartile would be dependent on the availability

of nonfirm energy. If actual service to the DSI first quartile were to become more dependent on the availability of nonfirm energy, this calculation would produce a larger character of service adjustment. Diffely, BPA, E-BPA-01, 10-11. However, for the term of the rate link, BPA anticipates that any change in the conditions assumed for the 1985 rate filing would not affect significantly the DSIs' dependence on nonfirm energy for first quartile service and, therefore, the value of the IP Standard margin.

BPA's value of reserves methodology produces a stable result absent a significant change in load/resource balance conditions or major resource additions. No such change is likely within the IP-PF rate link period. The methodology for computing the VOR credit has not changed significantly since it was first implemented in 1981. Moreover, the amount of the VOR credit has remained stable over several general wholesale rate adjustments. No changes are anticipated within the effective period of the proposed rate link that would materially affect the results obtained from the VOR analysis for the 1985 rate filing. Diffely, BPA, E-BPA-01, 11.

Taken together, the anticipated stability of the IP Premium and IP Standard margins and the VOR credit support the use of the FY 1987 (1985 rate filing) net Premium margin of .92 mill per kilowatthour and the net Standard margin of .38 mill per kilowatthour for the term of the proposed rate link. Furthermore, using the margin and the value of reserves credit calculated for the 1985 rate proceeding as the basis for the long-term IP-PF rate link would reduce controversy in future rate proceedings. Diffely, BPA, E-BPA-01, 11.

The purpose of the second component of the proposed IP-PF rate link formula, the inflation adjustment, is to conform the currently effective rate link to price levels in future test periods. For each rate filing beyond fiscal year 1987 (the test year used in the 1985 rate case), the FY 1987 net Premium and Standard margins would be adjusted by an inflation factor based on the latest available GNP implicit price deflators for the relevant test period. The resulting amounts would then be added to the applicable wholesale rate proposed in the relevant rate filing to arrive at the margin-based IP Premium and Standard rates (or their successor rates). Diffely, BPA, E-BPA-01, 9.

The GNP implicit price deflators are estimates of the amount of annual inflation forecasted to occur throughout the economy. They frequently are used to adjust for inflation effects when making cost comparisons between different years. Use of the GNP implicit price deflators is consistent with the escalation rates generally used for the program estimates in BPA's rate proposals. The GNP deflator index is preferable to other inflation measures for the purpose of the IP-PF rate link because it is easy to use and is readily available. Further, it is a generally accepted measure of inflation over time. Diffely, BPA, E-BPA-01, 12.

The applicable wholesale rate is not a component of the proposed IP-PF rate link. The applicable wholesale rate will be determined for each separate general rate filing. BPA's IP-PF rate link proposal provides a method for quantifying the differences between the IP Premium and Standard margins and the value of reserves credit (i.e., the net Premium and net Standard

margins). These differences constitute the link between the rates to BPA's preference customers and the rates to the DSIs. Diffely, BPA, E-BPA-01, 9.

F. Other Terms and Conditions

BPA's initial proposal of the rate link provided a statement of terms and conditions regarding two general issues pertaining to adjustment clauses and to quality of service during the rate link period: (1) adjustment and surcharge provisions generally applicable to BPA's preference customers; and (2) quality of service provided the DSIs' first quartile under the IP rate schedule.

The DSIs purchasing power under the IP rate schedule will be subject to certain adjustment clauses which apply to all of BPA's preference customers, assuming that the levels of the IP Premium rate and the IP Standard rate (or their successor rates) are defined by the IP-PF rate link itself rather than by the DSI floor rate. During the term of the IP-PF rate link, DSIs purchasing power under the IP rate schedule will be subject to all adjustment clauses, surcharges, or credits uniformly applicable under the PF rate schedule (and, if applicable, the NR rate schedule). Such adjustments to the 1985 rates include the Supply System Adjustment Clause and the Exchange Adjustment Clause. Diffely, BPA, E-BPA-01, 6.

For the duration of the IP-PF rate link, BPA will continue to make available to the DSIs, under the IP Premium rate (or its successor rate), the quality of service to which the DSIs are entitled under their Power Sales Contracts with BPA. Under the IP Standard rate (or its successor rate), the quality of service to the DSIs for the duration of the IP-PF rate link will be that quality of service specified by the Variable Rate Contract for service under the VI-86 discounted rate. Diffely, BPA, E-BPA-01, 6.

G. Issues

Issue #1. Should an IP-PF rate link be implemented?

1. Summary of Positions

BPA proposed an IP-PF rate link which establishes a direct and formal relationship between rates to the DSIs and rates to BPA's preference customers. Diffely, BPA, E-BPA-01, 5. The DSIs, Columbia Falls Aluminum Company (CFAC), and Portland General Electric (PGE) support BPA's proposed rate link. Brief on Exceptions, DSI, R-DS-01, 1; CFAC, IP-PF-86-M-12; PGE, IP-PF-86-M-26. The PPC also is generally supportive of the proposed IP-PF rate link. Brief on Exceptions, PPC, R-PP-01, 1.

Mr. Austin Collins opposes the IP-PF rate link. Collins, P-AC-01, 1; Collins, IP-PF-86-M-28.

2. Evaluation of Positions

Mr. Collins opposes an IP-PF rate link, contending that the rate link would lock in the existing DSI rate structure and preclude any review through the rate link period. Collins, P-AC-01, 1.

The argument that the proposed IP-PF rate link would lock in the existing DSI rate structure ignores the fact that the rate link is only one component which would determine IP rate levels in future BPA rate proceedings. In future rate proceedings, the applicable wholesale rate will be added to the amount specified by the proposed rate link formulas to determine an IP rate level which will be subject to the floor rate test. Diffely, BPA, E-BPA-01, 9. Both the applicable wholesale rate and the DSI floor rate will undergo review in future rate proceedings. Furthermore, the development of post-1985 rates to the DSIs is defined to a large extent already by sections 7(c)(2) and 7(c)(3) of the Pacific Northwest Power Act. The proposed rate link simply predetermines two components, the margin and VOR credit, provided by the Pacific Northwest Power Act for developing post-1985 rates to the DSIs.

As for the lack of opportunity for future review of the rate link during the proposed rate link period, BPA is establishing the IP-PF rate link as a long-term ratemaking methodology to achieve greater load planning certainty by providing the DSIs with improved rate predictability and to reduce the controversy and need for data collection in future BPA rate cases. Diffely, BPA, E-BPA-01, 2-4. There are no arguments on the record that these are not appropriate goals. These goals would be frustrated by the uncertainty and potential controversy associated with review of the rate link prior to the end of the proposed rate link period.

Finally, the results produced by updating the 1985 calculations of the margin and the VOR credit would be fairly stable over the term of the rate link. Diffely, BPA, E-BPA-01, 10-11; Brief on Exceptions, DSI, R-DS-01, 2. The 1985 margin and VOR results and the inflation indexes included in the proposed IP-PF rate link formulas will provide a reasonable basis for quantifying net margins for developing DSI rates in future BPA rate cases. Diffely, BPA, E-BPA-01, 11-13; Brief on Exceptions, PPC, R-PP-01, 1; Brief on Exceptions, DSI, R-DS-01, 2. No evidence to the contrary exists on the record.

3. Decision

The proposed IP-PF rate link reasonably approximates any changes to the VOR credit or the margin over the term of the rate link, while providing increased BPA load certainty and reducing potential controversy and the need for data collection in future rate proceedings. For these reasons, BPA will implement the IP-PF rate link.

Issue #2

Should DSI rates established under the IP-PF rate link remain in effect after June 30, 1990?

1. Summary of Positions

BPA proposed that the rate link would be effective "for the period commencing July 1, 1985 (the effective date of the 1985 rates), through the last rate period commencing on or before June 30, 1990." Diffely, BPA, E-BPA-01, 5. BPA also proposed that "[t]he formula would be re-examined

during the general wholesale power rate adjustment after June 30, 1990." Diffely, BPA, E-BPA-01, 5-6.

In its Brief on Exceptions, PPC argues that the term of the rate link should not extend through a rate period commencing on June 30, 1990. Brief on Exceptions, PPC, R-PP-01, 2. PPC supports an application of the rate link "through the last rate period before June 30, 1990, to the extent that a substantial portion of the rate period occurs before June 30, 1990." Id., 3, (emphasis in original). PPC argues that it supports the rate link only for a limited period because PPC lacks confidence that the rate link would continue to be a reasonable proxy for industrial margins in the future. Id., 2. PPC argues that application of the IP-PF rate link through a rate period commencing on June 30, 1990, would violate the Federal Energy Regulatory Commission's rule against rate approval for longer than a 5-year period. Id., 2-3.

In its response to PPC's Brief on Exceptions, the DSIs allege that the PPC provided no record support for the contention that the rate link would cease to be a reasonable proxy for future industrial margins. The DSIs contend that the testimony of BPA witness Robert Diffely is the only record evidence on this issue and that such testimony concluded that the rate link approximates the net margin during the entire effective period of rates to be established pursuant to the rate link. Response to PPC Brief on Exceptions, DSI, R-DS-02, 2. The DSIs also argue that the fundamental purpose of the rate link, providing stability and predictability, would be destroyed if PPC's position were adopted. Id., 4. The DSIs allege that the PPC's late objection to the IP-PF rate link proposal prejudices other parties and is inconsistent with a fair administrative process. Id., 5. Finally, the DSIs argue that the term of the rate link does not violate FERC's rule against rate approval exceeding 5 years. Id.

Portland General Electric Company (PGE) concurs with the DSI position. PGE, IP-PF-86-M-34.

2. Evaluation of Positions

As noted previously, BPA's proposed IP-PF link was based on a proposal developed by PPC and the DSIs. By letter dated June 6, 1986, the "Joint DSI/PPC Position on IP/PF Link" was submitted to BPA. This joint proposal states:

> Except as required by the floor rate provision of the Regional Act (Pacific Northwest Power Act), the IP test year rates shall be determined in any section 7(i) proceeding to establish rates effective on or before July 1, 1990, by the formulae in Paragraph 1. (Emphasis added.)

BPA's testimony states:

> The IP-PF rate link is being proposed to be effective for the period commencing July 1, 1985 (the effective date of the 1985 rates), through the last rate period commencing on or before June 30, 1990. The current rate period is actually the beginning of the proposed duration period of the IP-PF rate link. The effective rate link for the current rate period is that link established in the 1985 wholesale rate filing, and would be adjusted pursuant to the proposed formulas in each subsequent rate period commencing on or before June 30, 1990. (Emphasis added.)

Diffely, BPA, IP-PF-86-E-BPA-01, 5. BPA's testimony also discusses the rationale for making the rate link effective through the last rate period commencing on or before June 30, 1990:

> Linking the IP Premium rate and the IP Standard rate to the PF rate is designed to assist long-term planning certainty and rate predictability for the DSIs.. BPA believes that the proposed duration is the minimum term for which the IP-PF rate link should be set, in order to reduce rate uncertainty perceived by the DSIs. The formula would be re-examined during the first general wholesale power rate adjustment after June 30, 1990. (Emphasis added.)

BPA's testimony clearly states that the rate link would apply to rates established on or before June 30, 1990. No party, including PPC, raised any objection to this proposal at any time prior to issuance of the Draft ROD. However, PPC appears only to object to June 30, 1990, as a date for commencement of a rate period. Brief on Exceptions, PPC, R-PP-01, 2. In order to address this concern, BPA will delete the words "on or" from the language specifying the effective period of the rate link. The rate link will be effective in rates established before June 30, 1990, through the end of the rate period.

The PPC also alleges that the rate link is not a reasonable proxy for future industrial margins. Brief on Exceptions, PPC, R-PP-01, 2. However, the record demonstrates otherwise. The only record evidence addressing this issue is contained in the testimony of BPA, which concludes that the rate link reasonably approximates the net margin during the entire effective period of rates to be established pursuant to the rate link. Diffely, BPA, IP-PF-86-E-BPA-01, 5-6.

PPC contends that the term of the link would violate FERC's rule against rate approval for a period greater than 5 years. This argument is misplaced. The DSIs note that the IP-PF link does not establish rates, it simply fixes the relationship between the IP and PF rates. Response to PPC Brief on Exceptions, DSI, R-DS-02, 5. Thus, the DSIs argue, the FERC regulation does not apply. Id. The PPC argument, however, fails for more fundamental reasons.

PPC's argument is speculative. For example, if BPA adjusts rates effective July 1, 1990, the issue is moot. Similarly, even if rates were to be effective for a rate period extending past June 30, 1990, PPC does not

object as long as a "substantial portion of the rate period occurs before June 30, 1990." Brief on Exceptions, PPC, R-PP-01, 3.

PPC's argument also places form over substance. The proceeding to establish a prospective IP-PF rate link did not begin until BPA published a notice in the Federal Register on July 2, 1986. 51 Fed. Reg. 24,197 (1986). The final proposed IP-PF link will not be submitted to FERC until approximately August 1, 1987, with BPA's proposed 1987 wholesale power and transmission rates. BPA will request interim approval of such rates effective October 1, 1987. Thus, a prospective IP-PF rate link will not even exist until October 1, 1987.

The Administrator did not establish a prospective IP-PF rate link in BPA's 1985 rate proceeding, noting that "BPA is anxious to proceed with whatever actions may be necessary, outside of the 1985 rate proceeding, to facilitate the development and adoption of a long-term policy with respect to the determination of the relationship between the PF and IP rate schedules." 1985 Administrator's Record of Decision, WP-85-A-02, 245. Thus, establishment of a prospective IP-PF link will not occur until October 1, 1987. Assuming, arguendo, that FERC's 5-year limitation were to apply to the link, the 5-year period would not expire until October 1, 1992, well beyond June 30, 1990. BPA's proposal is consistent with the FERC regulation.

3. Decision

The IP-PF rate link will remain effective in rates established before June 30, 1990, through the end of the rate period.

Issue #3

Should adjustment clauses apply to the IP floor rate?

1. Summary of Positions

PPC alleges that the Draft ROD "provides that the DSIs will not be subject to surcharges or adjustment clauses when the rate floor is triggered. (DROD at 9)." Brief on Exceptions, PPC, R-PP-01, 3. PPC argues that the DSIs must pay the same adjustment clauses that preference customers pay in order to ensure that DSI rates are equitable in relation to retail industrial rates based upon the applicable wholesale rate. Id.

The DSIs allege that whether the IP rate, when determined by the floor, is subject to adjustment clauses is not an issue in this proceeding. Response to PPC Brief on Exceptions, DSI, R-DS-02, 6. The DSIs also allege that this issue was resolved in BPA's 1985 rate proceeding, where the Administrator concluded that "[t]he Industrial Power customers are exempt from the adjustment clauses during the 1985 rate period." Id.

2. Evaluation of Positions

PPC alleges that the Draft ROD concluded that the DSIs will not be subject to surcharges or adjustment clauses when the rate floor is triggered, citing Draft ROD, 9. The Draft ROD provided no such conclusion. The Draft ROD stated that "[t]he DSIs purchasing power under the IP rate schedule will

be subject to certain adjustment clauses to which BPA's preference customers are subject, assuming that the IP premium rate and the IP Standard rate levels are defined by the IP-PF rate link itself rather than by the triggering of the floor rate." Draft ROD at 9. The Draft ROD makes no conclusion regarding adjustments applicable when the IP rate is established by the floor rate. The IP-PF rate link proceeding is concerned with the establishment of a rate link between rates charged to BPA's direct-service industrial customers and rates charged to BPA's public body and preference customers. The floor rate, and potential surcharges or adjustments to the floor rate, are not established in this proceeding.

3. Decision

The determination of surcharges and adjustment clauses applicable to the IP floor rate is not at issue in this proceeding.

H. Decision Summary

BPA adopts as its proposal the IP-PF rate link as initially proposed and presented in the testimony of BPA witness Diffely. BPA will submit the rate link to FERC with BPA's next general rate filing. This decision is appropriate for several reasons.

First, the proposal meets BPA's primary objective of enhancing BPA's revenue stability and resource planning certainty by reducing the rate uncertainty perceived by the DSIs. Second, implementation of the proposal would reduce controversy in future rate cases. Third, the proposed rate link formula is understandable and administratively feasible, while maintaining consistency with provisions of the Pacific Northwest Power Act. Finally, as evidenced by the limited opposition to BPA's initial proposal, BPA's customer groups generally support the proposed IP-PF rate link.

CHAPTER II

DSI OPTIONS ENVIRONMENTAL IMPACT STATEMENT

A. Introduction

The National Environmental Policy Act of 1969 (NEPA) requires that environmental impact analyses be performed before making decisions on major Federal actions that significantly affect the environment. BPA prepared the Direct Service Industry Options Environmental Impact Statement (EIS) to analyze the potential effects of three options (actions) that BPA has been considering. The purpose of these options is to stabilize the electrical load of BPA's direct-service industrial (DSI) customers in order to enhance BPA's revenue stability and facilitate resource planning. The three options are (1) a variable rate to the aluminum smelter DSIs based on market prices for aluminum; (2) a conservation/modernization (Con/Mod) program directed toward the aluminum smelter DSIs; and (3) a formalized link between the rates charged the DSIs and the rates charged BPA's public body and cooperative customers (the IP-PF rate link). The three options are not alternatives to each other since each could be implemented independently. BPA already has implemented the Variable Industrial Power (VI-86) rate for aluminum smelter DSIs and is in the process of implementing the Con/Mod program.

This Record of Decision pertains only to the IP-PF rate link and does not resolve issues relating to the Variable Industrial Power rate or the Con/Mod program. However, in making its decision on the IP-PF rate link, BPA considered the potential impacts identified in the EIS of implementing an IP-PF rate link alone or in combination with one or both of the other two options.

BPA prepared an EIS to analyze the potential environmental impacts of a no action alternative and alternatives for each of the three DSI options. The EIS also evaluated the cumulative effects of implementing more than one option. The major effects examined included aluminum smelter operations, resource operations and development, and physical and socioeconomic environmental impacts.

The Draft EIS was circulated to the public for review in January 1986. Comments were accepted through February 21, 1986. The Final EIS, which was based on the Draft EIS and comments received on the Draft EIS, was distributed on May 8, 1986. Copies of the Draft and Final EISs are available upon request from the BPA Environmental Manager.

B. Decision

BPA has decided to adopt a formalized rate link between the rates charged its DSI customers and the rates charged its preference customers. This link is referred to as the IP-PF rate link. The IP-PF rate link is proposed to be effective for the period July 1, 1985 (the effective date of the 1985 rates), through the last rate period commencing before June 30, 1990.

The IP Premium margin, the IP Standard margin, and the value of reserves (VOR) credit derived for the 1985 wholesale rate filing comprise the IP-PF rate link effective for the current rate period. Under BPA's proposed IP-PF rate link, the rate link established in the 1985 wholesale rate filing for the current rate period will be used to determine the IP rate levels for future rate periods. The net Premium margin of 0.92 mill per kilowatthour and the net Standard margin of 0.38 mill per kilowatthour derived for the 1985 wholesale rate filing will be adjusted for inflation using the GNP deflator index to determine the IP rate levels for rate periods after FY 1987. The applicable wholesale rate will be determined for each separate rate filing. The margin-based IP Standard rate developed for future rate filings will continue to be subject to the DSI floor rate test.

DSIs purchasing power under the IP rate schedule will be subject to the same automatic adjustment clauses that are applicable to BPA's preference customers, assuming that the levels of the IP Standard and the IP Premium rates (or their successor rates) are defined by the IP-PF rate link rather than the DSI floor rate. For the duration of the IP-PF rate link, BPA will continue to make available to the DSIs, under the IP Premium rate (or its successor rate), the quality of service to which they are entitled under their Power Sales Contracts with BPA. Under the IP Standard rate (or its successor rate), the quality of service to the DSIs for the duration of the IP-PF rate link will be the quality of service specified by the Variable Rate Contract for the service under the VI-86 discounted rate.

C. Summary

1. Alternatives

Relative to the IP-PF rate link, a no-action alternative, two IP-PF rate link duration alternatives, and two implementation alternatives were considered in the EIS. BPA based its conclusions regarding potential environmental impacts of the proposed IP-PF rate link on the analysis of the 5-year duration alternative and the policy implementation alternative in the EIS, since these alternatives closely correspond to features of the proposed IP-PF rate link.

The no-action alternative assumed continuation of the DSI rate provisions that were in effect prior to implementation of the VI-86 rate. That is, it assumed that the IP rate schedule provided for an IP Premium rate, an IP Standard rate, and when BPA revenues would be increased by an incentive rate offering, a discretionary Incentive rate. The no-action alternative also assumed a continuation of current BPA procedures for development of the IP rate schedule. Specifically, it assumed that the values of the IP Premium margin, the IP Standard margin, and the VOR credit would be determined in each rate proceeding rather than being predetermined for an extended period through a formalized rate link.

The two duration alternatives analyzed for the EIS are (1) a 5-year duration and (2) duration through June 30, 2001.

The 5-year duration alternative assumed that the IP-PF rate link would be in effect through FY 1991. This alternative closely corresponds to the duration under the IP-PF rate link which BPA is proposing to adopt. Under this alternative, rate uncertainty perceived by the DSIs would be less than under the no action alternative. BPA, Final DSI Options Environmental Impact Statement (Final EIS), 26.

The second alternative extends the period of the IP-PF rate link through the expiration date of the DSI Power Sales Contracts, June 30, 2001. The DSIs may regard long-term rate uncertainty associated with this alternative to be less than the uncertainty associated with a 5-year duration. BPA, Final EIS, 26.

The two implementation alternatives analyzed for the EIS are (1) the policy alternative and (2) the contract modification alternative.

Under the policy alternative, the IP-PF rate link is implemented through a long-term policy. Conceivably, a rate link policy could be subject to changes prior to the end of the originally specified expiration date for the rate link, following ratemaking procedures provided under section 7(i) of the Pacific Northwest Power Act. BPA, Final EIS, 26. The policy alternative corresponds to BPA's proposed means of implementing the IP-PF rate link.

Under the contract modification alternative, the IP-PF rate link is implemented contractually. Implementation through contract modification would provide less flexibility than would the policy alternative for BPA to modify, if necessary, the IP-PF rate link provisions. However, the contract modification alternative likely would provide somewhat greater rate certainty and, therefore, greater planning certainty to the DSIs than the policy alternative. BPA, Final EIS, 26.

2. Environmentally Preferred Alternatives

Policy implementation of the IP-PF rate link and a 5-year duration are environmentally preferred over no action and the other alternatives. A 5-year duration with policy implementation minimizes the possibility that either the DSI customers or BPA's other customers would experience rates higher than they would be without the rate link. Relative to no action, a rate link incorporating these two alternatives would provide greater rate predictability to the DSIs, and would be in effect for a sufficient duration to enhance the chances of continued operations at those smelters which are at risk of closure under no action. Such a rate link could allow them to recoup investments in smelter modernization, especially if combined with the Variable rate and Con/Mod. Furthermore, there is less risk of adverse rate impacts to either the DSIs or other BPA customers under policy implementation with a 5-year duration than under contract modification or duration through June 30, 2001. Thus, an IP-PF rate link incorporating policy implementation and a 5-year duration has the best potential for avoiding adverse socioeconomic impacts in both the communities where smelters are located and elsewhere in the region. To the extent that a 5-year duration with policy implementation would result in higher smelter operating levels, physical environmental impacts which would have ceased under no action would continue to occur.

These physical impacts are closely regulated, however, and would be outweighed by the positive socioeconomic effects of a 5-year duration with policy implementation.

3. Decision Factors

BPA based its decision on legal requirements, ability to meet the need, rate design objectives, and a consideration of environmental impacts.

a. Legal Requirements. Section 7(a) of the Pacific Northwest Power Act requires BPA to set rates "in accordance with sound business principles" to produce revenues that recover the Administrator's costs and allow BPA to meet its obligations to the U.S. Treasury.

Section 7(a) directs that these rates be set in accordance with sections 9 and 10 of the Federal Columbia River Transmission System Act of 1974 (Transmission Act), 16 U.S.C. § 838; section 5 of the Flood Control Act of 1944; and the other provisions of the Pacific Northwest Power Act. Section 9 of the Transmission Act requires that rates be established "with a view to encouraging the widest possible diversified use of electric power at the lowest possible rates to consumers consistent with sound business principles," while having regard to recovery of costs and repayment to the U.S. Treasury. Substantially the same requirements are set forth in section 5 of the Flood Control Act.

Section 7(c)(1)(B) of the Pacific Northwest Power Act directs that rates to the DSIs be established after July 1, 1985, at a level the Administrator determines to be equitable in relation to the retail rates charged by public bodies to their industrial customers. The process for making that determination is outlined in section 7(c)(2). The determination is to be based on the rate BPA charges its preference customers plus an industrial margin, taking into account various cost and load characteristic factors. Section 7(c)(2) also provides that the rates shall not be less than rates "in effect for the contract year ending June 30, 1985" (the floor rate). The rates in effect for the contract year ending June 30, 1985, were set to recover a revenue level determined by the cost recovery requirements of section 7(c)(1)(A).

Policy implementation of the IP-PF rate link with a 5-year duration could enhance BPA's revenues compared to no action, because it would reduce the DSIs' planning uncertainty. It also could facilitate increased load stability and possibly augment the benefits of the Variable Industrial Power rate. BPA, Final EIS, 26, 115, 122.

Implementation of the rate link through contract modification or extending the rate link duration to June 30, 2001, contains greater risks compared to policy implementation for a 5-year period. Extending the duration of the rate link to June 30, 2001, would increase the risk that the rate link could become "outdated." That is, there is greater risk under a longer duration that IP rates defined by an updated calculation of the margin and the VOR credit in some future rate period would be significantly different from IP rate levels determined by an extended IP-PF rate link. This could result in IP rate

levels inconsistent with the post-1985 rate directives of section 7(c) of the Pacific Northwest Power Act. Therefore, a 5-year duration with policy implementation is superior to no action and the other alternatives in meeting BPA's legal requirements.

b. Ability to Meet the Need. BPA evaluated the ability of the no-action alternative and of each of the IP-PF rate link alternatives to meet the underlying need; that is, to stabilize the DSI load in order to facilitate BPA's resource planning and to stabilize BPA's revenues. BPA, Final EIS, 1.

The no-action alternative does not meet the need for stabilizing the DSI load. Under no action, BPA would continue to recalculate the margin and the VOR credit for each rate filing. This would perpetuate the rate uncertainty perceived by the DSIs, undermining their ability to plan and possibly undermining DSI load stability.

A 5-year duration for the rate link would provide the DSIs with more rate certainty than would no action. A longer duration, through June 30, 2001, would further reduce rate uncertainty to the DSIs and could result in slightly more DSI load stability than a 5-year duration. BPA, Final EIS, 26. Implementation of the rate link through a policy would reduce rate uncertainty relative to no action, but would result in slightly greater rate uncertainty than if the IP-PF rate link were implemented contractually.

In summary, the no-action alternative would not provide sufficient rate predictability to stabilize the DSI load. Policy implementation with a 5-year duration adequately meets the need for increasing the rate predictability necessary for stabilizing the DSI load. Contractual implementation and duration through June 30, 2001, would further reduce the rate uncertainty facing the DSIs and could result in slightly more DSI load stability than policy implementation for a 5-year period. All of the IP-PF rate link alternatives would enhance the benefits of the VI rate and a Con/Mod program to DSI load stability and BPA revenue stability.

c. Rate Design Objectives. In addition to meeting legal requirements, BPA's rates are designed to (1) meet BPA's revenue requirement while distributing the burden in an equitable manner among those who use a particular service; (2) encourage conservation and minimize environmental impacts; and (3) encourage the efficient use of resources by reflecting costs incurred and benefits received. Consideration also is given to rate continuity, ease of administration, revenue stability, customer acceptance, and ease of understanding.

Policy implementation of the IP-PF rate link and a 5-year duration potentially provide greater revenue stability than the no action alternative, and would not expose BPA to the long-term risk of revenue underrecovery that may occur under the no action alternative. Also, policy implementation with a 5-year duration would receive greater acceptance among BPA's non-DSI customers than any alternative involving duration through June 30, 2001, or contract modification. All the rate link alternatives provide more rate continuity than does the no action alternative. With respect to the other rate design objectives, there is no significant difference among alternatives.

d. Environmental Impacts. The environmental impacts of the IP-PF rate link stem from the perception by the aluminum companies of the degree of future rate and planning certainty provided. It was not possible to quantitatively analyze how the aluminum companies might modify their investment and operation decisions in response to a rate link. The rate link involves the issue of rate predictability and its effect on DSI loads, which is difficult to estimate quantitatively. Therefore, the physical and socioeconomic impacts of the IP-PF rate link alternatives were analyzed qualitatively in the EIS.

The IP-PF rate link is not likely to affect operations, and therefore environmental impacts, of the least- or most-efficient aluminum smelters since rate certainty alone would not affect their plant investment or closure decisions. For the smelters intermediate in efficiency, the additional rate and planning certainty provided by an IP-PF rate link could encourage investment in plant modernization and forestall plant closures because of greater assurance of investment recovery. BPA, Final EIS, 115. Thus, the physical environmental impacts of some plants may continue with an IP-PF rate link when otherwise the plants would have closed and the impacts ceased. However, the physical impacts of the aluminum smelters are regulated. In general, operation of the smelters does not result in environmental damage which has been found unacceptable by the appropriate regulatory agencies. Continued operation of smelters which otherwise would close would preclude or forestall significant localized adverse socioeconomic effects.

To the extent that aluminum smelter electrical demands may be higher because some smelters choose not to close, or lower because some smelters choose to modernize and improve their electrical efficiency as a consequence of an IP-PF rate link, the environmental impacts associated with the generation of electricity could be affected accordingly. BPA, Final EIS, 115. Such impacts are not expected to be significant.

The IP-PF rate link is not likely to affect the non-aluminum DSIs significantly, since electricity costs are, for most of those industries, less important in their business decisions than for the aluminum companies. BPA, Final EIS, 28. However, the IP-PF rate link is expected to have a generally beneficial, stabilizing effect on the rates of all non-aluminum smelter customers of BPA and thus may have positive regional socioeconomic benefits. BPA, Final EIS, 115.

BPA has implemented the Variable Industrial Power rate for aluminum smelters and plans to implement its Con/Mod program for aluminum smelters. Both of these options also were addressed in the DSI Options EIS. Implementing an IP-PF rate link will slightly augment the impacts of these other actions, both of which are directed at stabilizing aluminum smelter load. BPA, Final EIS, 122.

Maintaining the IP-PF rate link through FY 2001 would enhance the aluminum smelter DSIs' planning certainty throughout the term of the DSIs' current power sales contracts, and could therefore lead to a greater degree of plant modernization. At the same time, maintaining the link for a long period of time increases the risk that the aluminum smelter DSI customers, or BPA's

other customers, would experience inequities if the initial formulation of the link were no longer appropriate for determining the IP rate (i.e., if the true values of the margin or VOR credit change over time in a manner inconsistent with the rate link). Limiting the duration of the link to 5 years carries less risk of error but, relative to a longer duration, also provides less long-term planning certainty to the aluminum companies. The means of implementing the IP-PF rate link, through a policy or a contract, also carries a similar tradeoff between planning certainty for the aluminum companies and risk of rate inequity. Thus, contract modification with a longer duration ultimately could result in higher rates to the aluminum companies and BPA's other customers in the future than would result with policy implementation for a 5-year period. Therefore, there may be greater risk of adverse long-term socioeconomic impacts under contract modification with a longer duration than under policy implementation with a 5-year duration.

e. Conclusion Supported By The Decision Factors. Of the alternatives considered, the 5-year duration alternative with policy implementation is superior to no action and the other alternatives in fulfilling BPA's legal requirements and accomplishing BPA's rate design objectives. Policy implementation with a 5-year duration also meets the need for enhancing BPA revenue stability and resource planning certainty. Furthermore, policy implementation with a 5-year duration could lead to positive socioeconomic impacts associated with more stable DSI loads relative to no action. The positive socioeconomic impacts likely would outweigh any negative physical impacts associated with increased DSI operations. Finally, policy implementation of the IP-PF rate link with a 5-year duration appears to carry less risk of negative socioeconomic impacts than could occur if the rate link were extended to June 30, 2001, or implemented contractually. Therefore, policy implementation of the IP-PF rate link with a 5-year duration is superior to no action, contract modification, and duration through June 30, 2001, when evaluated on the basis of all the decision factors.

4. Mitigation

Significant adverse socioeconomic impacts are not likely to result from BPA's proposed IP-PF rate link or cumulatively from the IP-PF rate link with the Variable Industrial Power rate and Con/Mod.

Differences in physical impacts could result if certain aluminum plants which otherwise would close remain in operation or modernize. However, all of the aluminum plants are required to comply with Federal and state laws and regulations for protection of the environment. Air pollution control equipment already has been installed in the plants to comply with regulatory requirements. Existing groundwater pollution problems from past practices at some smelters are being addressed by state and Federal environmental agencies. Facilities for storage of spent potliners have been improved at some of the plants, reducing chances for further contamination from cyanide-containing leachate. Plant modernization measures are not expected to result in substantial adverse environmental impacts. They are more likely to reduce the smelters' impacts and, in any event, are subject to regulatory control. BPA, Final EIS, 102-105. Therefore, specific mitigation measures for the IP-PF rate link are not needed.

BPA conducts fish and wildlife and conservation programs independent of any decision on an IP-PF rate link. These programs mitigate any potential impacts related to electric power supply and to BPA's power marketing activities generally.

BPA's existing conservation programs, begun in 1981, are targeted toward all consumer sectors in the region and will help mitigate any need for additional generating resources.

Any changes in hydroelectric resource generation that might occur as a result of changes in aluminum smelter loads will be limited by factors constraining river operations. These factors include flood control, navigation, recreation, and mitigation for fish. Under the terms of the Pacific Northwest Power Act, BPA is required to protect, mitigate, and enhance fish and wildlife to the extent affected by development and operation of hydroelectric projects on the Columbia River or its tributaries. BPA, the U.S. Army Corps of Engineers, and the Northwest Power Planning Council will continue to develop and implement effective spill, bypass, and transportation programs to facilitate passage of downstream migrating smolts.

Implementation of specific conservation and fish and wildlife plans, programs, and projects will be undertaken independent of BPA's decision on the IP-PF rate link and will undergo separate decisionmaking processes. Furthermore, impacts of the IP-PF rate link would be indistinguishable from impacts arising from many other factors. Because of the complexity of these factors, any monitoring to assess impacts specifically arising from the rate link, to enable improved impact analyses for similar actions, or to carry out mitigation would be speculative and impractical. Therefore, no monitoring or enforcement programs are adopted.

CHAPTER III

SUMMARY OF CONCLUSIONS

A. The proposed IP-PF rate link is consistent with the rate directives of the Pacific Northwest Power Act and other applicable legislation.

B. The proposed IP-PF rate link achieves its stated goals of enhancing BPA's revenue stability and resource planning certainty by achieving greater rate predictability for the DSIs and reducing controversy in future rate cases.

C. BPA's ability to meet its planned payments to the Treasury is enhanced because of the increased revenue stability under the proposed IP-PF rate link.

D. The Hearing Officer has fulfilled his duties under section 7(i) of the Pacific Northwest Power Act by providing for a full and fair evidentiary hearing, open to all interested parties and participants, on all issues relevant to the IP-PF rate link. All parties have been given every reasonable opportunity to engage in all phases of the hearing.

Based on the foregoing conclusions and the decisions contained throughout this Record of Decision, I hereby adopt as Bonneville Power Administration's final rate proposal the attached IP-PF rate link methodology.

Issued at Portland, Oregon this 20th day of March 1987,

James J. Jura

APPENDIX A

PROVISIONS OF BPA'S PROPOSED IP-PF RATE LINK

A. Terms and Definitions

Section 7(c)(1)(B) of the Pacific Northwest Power Act states that rates to BPA's direct-service industrial (DSI) customers after July 1, 1985, shall be equitable in relation to the industrial rates charged by BPA's preference customers. Section 7(c)(2) states that rates to the DSIs are to be based upon (1) BPA's applicable wholesale power rates to its preference customers and (2) typical margins above power and transmission costs included in the preference customers' rates to their industrial customers. The resulting rate levels are subject to the floor rate provision of section 7(c)(2), which provides for a minimum DSI rate level. Relevant terms are defined as follows:

1. Applicable Wholesale Rate. As provided in section 7(c)(2) of the Pacific Northwest Power Act, the BPA wholesale power rates developed for purchases by BPA's public body and cooperative customers, adjusted for DSI load shape (time pattern of consumption).

2. Premium Margin. The typical margin above wholesale power costs referred to in section 7(c)(2) of the Pacific Northwest Power Act, adjusted for the size of DSI loads. As determined in the Administrator's Record of Decision for BPA's 1985 rate adjustment proceeding, calculation of the Premium margin recognizes that, in the test year for which those rates were set, service to the DSI first quartile under the Industrial Firm Power (IP) Premium rate was not dependent on the availability of nonfirm energy.

3. Standard Margin. The typical margin above wholesale power costs referred to in section 7(c)(2) of the Pacific Northwest Power Act, adjusted for the size of the DSI load and the character of service to the first quartile. As determined in the Administrator's Record of Decision for the 1985 rate filing, calculation of the Standard margin recognizes that, in the test year for which those rates were set, service to a portion of the first DSI quartile under the IP Standard rate was dependent on the availability of nonfirm energy.

4. Value of Reserves (VOR) Credit. The rate credit granted the DSIs for BPA's contractual rights to restrict their load under certain conditions.

5. Net Premium Margin. The Premium margin less the Value of Reserves Credit.

6. Net Standard Margin. The Standard margin less the Value of Reserves Credit.

7. IP-PF Rate Link (Rate Link). The methodology for linking the rates for BPA's DSI customers to the rates for BPA's public body and cooperative customers on a long-term basis.

8. IP Premium Margin-Based Rate. The rate level defined by the following components: the applicable wholesale rate, the premium margin, and the value of reserves credit.

9. IP Standard Margin-Based Rate. The rate level defined by the following components: the applicable wholesale rate, the standard margin, and the value of reserves credit.

10. IP Premium Rate. The rate option contained in the IP rate schedule which includes first quartile service with Surplus Firm Energy Load Carrying Capability. The level of the IP Premium rate (or its successor rate) contained in the IP rate schedule may not necessarily equal the level of the IP Premium margin-based rate. The IP Premium rate is subject to the floor rate test described in section 7(c)(2) of the Act. Further, the IP Premium rate (or its successor rate) may be subject to additional adjustments, such as any section 7(b)(2) and section 7(b)(3) adjustments and scaling to adjust for the rate period extending beyond the test year.

11. IP Standard Rate. The rate option contained in the IP rate schedule which includes interruptible first quartile service with nonfirm energy and/or provisional drafts. The level of the IP Standard rate (or its successor rate) contained in the IP rate schedule may not necessarily equal the level of the IP Standard margin-based rate. The IP Standard rate is subject to the floor rate test. Further, the IP Standard rate (or its successor rate) may be subject to additional adjustments such as any section 7(b)(2) and section 7(b)(3) adjustments and scaling to adjust for the rate period extending beyond the test year.

12. Floor Rate. The rate determined in BPA's 1985 wholesale rate proceeding that forms the basis for computing a minimum DSI rate level that meets the requirements of section 7(c)(2) of the Pacific Northwest Power Act.

B. Formulas

The proposed IP-PF rate link incorporates the following formulas:

1. a. $$IP_P = AWR + [.92 \times \frac{\text{GNP deflator (test period)}]}{\text{GNP deflator (FY 1987)}}$$

b. $$IP_S = AWR + [.38 \times \frac{\text{GNP deflator (test period)}]}{\text{GNP deflator (FY 1987)}}$$

Where:

"IP_P" is the IP Premium margin-based rate (mills per kilowatthour) for the test period, as determined by the rate link.

"IP_S" is the IP Standard margin-based rate (mills per kilowatthour) for the test period, as determined by the rate link.

"AWR" is the Applicable Wholesale Rate, as referenced in section 7(c)(2) of the Pacific Northwest Power Act, to BPA's public body and cooperative

customers. The AWR is the weighted average of the Priority Firm Power (PF) demand and energy charges in the rates charged for firm power for the combined general requirements of public body and cooperative customers (weighted by PF energy sales to the public agencies) and New Resources Firm Power (NR) demand and energy charges in the rates charged public body and cooperative customers applicable to their new large single loads (weighted by energy sales to public agencies and cooperatives for resale to new large single loads), applied to the DSIs' demand and energy billing determinants as forecasted in the section 7(i) proceeding in which the rate link is applied.

".92" is the Fiscal Year (FY) 1987 net Premium margin, based on 100 percent service to the first quartile, which is not dependent on the availability of nonfirm energy, as determined in the 1985 rate proceeding Record of Decision.

".38" is the FY 1987 net Standard margin, based on service to the first quartile, a portion of which is dependent on the availability of nonfirm energy, as determined in the 1985 rate proceeding Record of Decision.

"GNP deflator (FY 1987)" is the Gross National Product (GNP) deflator index for 1987.

"GNP deflator (test period)" is the GNP deflator index for the test period in each subsequent section 7(i) proceeding where the IP rates are to be determined by the rate link.

C. Other Terms and Conditions of the IP-PF Rate Link

1. Except as required by the floor rate provision in section 7(c)(2) of the Pacific Northwest Power Act, IP rates effective before July 1, 1990, shall be determined by the formulas in section B of this appendix. The purpose of the formulas is to eliminate the need to recalculate during the term of the rate link the value of reserves (including the VOR credit) and the typical margin, net of adjustments as set forth in sections 7(c)(2)(A), (B), and (C) of the Pacific Northwest Power Act. The only variables in the formulas are "AWR" and "GNP deflator (test period)." That is, for each section 7(i) proceeding in which the rate link is applied, "AWR" shall be calculated from the PF and NR rates as determined in that proceeding and "GNP deflator (test period)" shall be the GNP deflator index for the test period used for all other purposes in that proceeding. Further, if the IP rates determined by the rate link will be effective for periods other than a 12-month test year, then these rates may be scaled upward or downward to those future periods as appropriate.

2. In the event that the rates established as described in section B of this appendix rather than the section 7(c)(2) floor rate govern the applicable IP rates, then, in addition to any potential section 7(b)(3) obligations on the part of the DSIs, including surcharges arising from the triggering of the section 7(b)(2) rate test, IP purchasers also shall be subject during the term of the link to adjustment clauses, surcharges, or credits uniformly applicable to the PF rate schedule. For example, in the 1985 rate schedules such adjustments would have included the Exchange and Supply System adjustment

clauses either applicable to the PF rate for firm power for the general requirements of public body and cooperative customers, or uniformly applicable to the NR rate schedules. For this purpose, the Low Density Discount available to some public body and cooperative customers and any surcharge for noncompliance with model conservation standards shall not be considered "uniformly applicable."

3. For the duration of the link, BPA will continue to make available to the DSIs power of the quality to which the DSIs are entitled under their Power Sales Contracts with BPA, at the rates established pursuant to sections B.1.a. and C.1. of this appendix. BPA also will make available to the DSIs, on an optional basis, first quartile service, the quality of which shall be specified by the Variable Rate Contract and which shall remain unchanged during the duration of the link, at the rates established pursuant to sections B.1.b. and C.1 of this appendix.

APPENDIX B

LIST OF PARTICIPANTS WHO COMMENTED

Name	Representing
Coates, E. E.	City of Tacoma
Gates, Clarice	Self
Kulback, Raymond J., Sr.	Self
Neely, John C., Jr.	Self
Zahn, E.	Self