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1990 IP-PF Rate Link Extension

Administrator's Record of Decision

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November 1990

ADMINISTRATOR'S FINAL RECORD OF DECISION

1990 IP-PF RATE LINK EXTENSION

No. IP-PF-90

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1990 IP-PF RATE LINK EXTENSION PROPOSAL

Administrator's Final Record of Decision

CHAPTER I

BACKGROUND

A. Introduction

Bonneville Power Administration (BPA) sells electric power to its direct service industrial (DSI) customers under the Industrial Firm Power (IP) rate schedule and, for those DSI aluminum smelters electing to participate, the Variable Industrial Power (VI) rate schedule and contracts. BPA's public body and cooperative customers (preference customers) purchase power under the Priority Firm Power (PF) rate schedule and, potentially, under the New Resource Firm Power (NR) rate schedule.

In 1987, BPA adopted a methodology establishing a formal relationship between rates charged to DSI customers and rates charged to preference customers. This relationship is referred to as the IP-PF rate link. Administrator's Record of Decision, 1986 IP-PF Rate Link Proposal, March 1987, (1987 Link ROD) confirmed and approved in United States Dep't of Energy - Bonneville Power Admin., 40 F.E.R.C. ¶61,351 (1987). The link expires upon the expiration of BPA's current rates, that is, on September 30, 1991.

On July 19, 1990, BPA published a notice proposing to extend the IP-PF link through rate periods commencing on or before the termination date of the VI rate contracts or September 30, 1995, whichever is later. 55 Fed. Reg. 29,402. This Record of Decision

(ROD) concludes, based on the record developed during a rate hearing process, that the link should be so extended.

B. History of the IP-PF Rate Link

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. DSI Initial Brief, WP-85-DS-01 at 67; DSI Reply Brief, WP-85-R-DS-01 at 1. The BPA 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 at 245.

Later 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. The final DSI Options Study, issued in June of 1985, 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.

BPA conducted a hearing pursuant to Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act) § 7(i), 16 U.S.C. § 839e(i), which resulted in the adoption in 1987 of a formal link between the IP and PF rates. The link methodology is effective "in rates established before June 30, 1990, through the end of the rate period." 1987 Link ROD at 13. The methodology is described in detail in Chapter II, § B.

C. Procedural History of This Rate Proceeding

In accordance with Northwest Power Act § 7(i), 16 U.S.C. § 839e(i), BPA announced a hearing on the proposed link extension. 55 Fed. Reg. 29,402 (1990). Six interventions were filed on behalf of the following: Public Power Council; PacifiCorp, dba Pacific Power & Light Company and Utah Power & Light Company; Puget Sound Power & Light Company; Association of Public Agency Customers; Western Public Agencies Group; and Direct Service Industrial Customers.1/ Dean F. Ratzman, Hearing Officer, commenced the proceeding with a prehearing conference on July 26, 1990, wherein he ruled upon matters of interventions and scheduling. Judge Ratzman also issued his "Special Rules of Practice to Govern This Proceeding". IP-PF-90-O-02 (hereafter, citations to pleadings and exhibits in this record will be shortened thus: "O-02").

BPA's direct testimony, sponsored by Haig Revitch, was filed on July 19, 1990. E-BPA-01. During the course of discovery, BPA responded to eleven data requests.

No litigant other than BPA filed testimony. The parties waived cross examination of BPA's witness (see M-04, O-03). The DSIs filed an initial brief (B-DS-01). No comments were received from participants. A Draft ROD was published on September 25, 1990; no briefs on exception were filed.

1/ The DSIs intervened as an entity and through the following individual members: Aluminum Company of America; Atochem North America; Columbia Aluminum Corporation; Columbia Falls Aluminum Company; Georgia-Pacific Corporation; Intalco Aluminum Corporation; Kaiser Aluminum & Chemical Corporation; Northwest Aluminum Company; Oregon Metallurgical Corporation; Reynolds Metals Company; and Vanalco, Inc.

D. Organization of Final Record of Decision

The ROD contains four chapters. The procedural and legal background forms the first chapter; the second discusses the rate link proposal. Chapter III addresses environmental impact matters, while Chapter IV presents the conclusions on the proposal.

E. Legal Guidelines Governing Establishment of Rates

1. Statutory Guidelines

Ratemaking standards governing BPA's transmission rates are found exclusively in the Northwest Power Act and the Federal Columbia River Transmission System Act, 16 U.S.C. §§ 838g, h (1974) (Transmission System Act). The directives contained in each of these statutes are described below.

Section 7(a) of the 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. Rates are to be set to recover collectively, 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 by power revenues) ... " 16 U.S.C. § 839e(a)(1).

Northwest Power Act § 7(a) also directs that these rates be set in accordance with both §§ 9 and 10 of the Transmission System Act and § 5 of the Flood Control Act of 1944, 16 U.S.C. § 825s. Section 9 of the Transmission System Act requires, among other

things, that BPA's power and transmission rates be established with a view to encouraging the widest possible diversified use of federal power at the lowest possible rates to consumers consistent with sound business principles, while having regard to recovery of costs of producing and transmitting the power and to repayment of the U.S. Treasury. 16 U.S.C. § 838g. See also 16 U.S.C. § 839e(a)(2)(C). Substantially the same requirement is set out in § 5 of the Flood Control Act, 16 U.S.C. § 825s. Transmission System Act § 10, 16 U.S.C. § 838h, provides that the recovery of transmission system costs be equitably allocated between federal and non-federal power utilizing the system.

2. Specific Rate Guidelines

Rates for the DSIs are to be set according to the provisions of Northwest Power Act § 7(c), 16 U.S.C. § 839e(c). This section provides that, beginning July 1, 1985, rates that apply to DSIs shall be set at "a level which the Administrator determines to be equitable in relation to the retail rates charged by [preference] customers to their industrial consumers in the region." 16 U.S.C. § 839e(c)(1)(B). That determination

> ... shall be based upon the Administrator's applicable wholesale rates to ... [preference] customers and the typical margins included by such [preference] customers in their retail industrial rates ...

16 U.S.C. § 839e(c)(2).

Section 7(c)(2) further directs 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 ...

16 U.S.C. § 839e(c)(2)(A)-(C).

Finally, § 7(c)(2) requires 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), 16 U.S.C. § 839e(c)(3), directs 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. Ratemaking Discretion Vested in the Administrator

The Administrator has broad discretion to interpret and implement statutory standards applicable to ratemaking. These standards focus on cost recovery and do not restrict the Administrator to any particular rate design method or theory. See Pacific Power & Light Co. v. Duncan, 499 F. Supp. 672, 683 (D. Ore. 1980). Accord, City of Santa Clara v. Andrus, 572 F.2d 660, 668 (9th Cir. 1978) ("widest possible use" standard is so broad as to permit "the exercise of the widest administrative discretion"); Electricities of North Carolina v. Southeastern Power Admin., 774 F.2d 1262, 1266 (4th Cir. 1985).

The United States Court of Appeals for the Ninth Circuit has specifically recognized the Administrator's ratemaking discretion. Central Lincoln Peoples' Util. Dist. v. Johnson, 735 F.2d 1101, 1116, 1120-1129 (9th Cir. 1984) (Central Lincoln) (upheld BPA on the merits of every rate issue and declared that "[b]ecause BPA helped draft and must administer the Act, we give substantial

deference to BPA's statutory interpretation"); PacifiCorp v. Federal Energy Regulatory Comm'n, 795 F.2d 816, 821 (9th Cir. 1986) ("BPA's interpretation is entitled to great deference and must be upheld unless it is unreasonable"); Atlantic Richfield Co. v. Bonneville Power Admin., 818 F.2d 701, 705 (9th Cir. 1987) (BPA's rate determination upheld as a "reasonable decision in light of economic realities"); cf. Aluminum Co. of America v. Central Lincoln Peoples' Util. Dist., 467 U.S. 380, 389 (1984) ("[t]he Administrator's interpretation of the Regional Act is to be given great weight"); Department of Water and Power of the City of Los Angeles v. Bonneville Power Admin., 759 F.2d 684, 690 (9th Cir. 1985) ("[i]nsofar as agency action is the result of its interpretation of its organic statutes, the agency's interpretation is to be given great weight"); Aluminum Co. of America v. Bonneville Power Admin., 903 F.2d 585, 590 (9th Cir. 1989) (Alcoa) ("We defer to the interpretation of a statute by the agencies charged with administering it ... Because BPA drafted the [Northwest Power] Act, its interpretation is to be given 'great weight' and should be upheld if reasonable.")

4. Confirmation and Approval of Rates

BPA's rates become effective upon confirmation and approval by the Federal Energy Regulatory Commission (Commission). 16 U.S.C. § 839e(a)(2). The Commission's review is appellate in nature, based on the record developed by the Administrator. Central Lincoln, 735 F.2d at 1116; Alcoa, 903 F.2d at 590; United States Dep't of Energy - Bonneville Power Admin., 13 F.E.R.C. ¶61,157, 61,339 (1980). The Commission may not modify rates proposed by the

Administrator, but may only confirm, reject or remand them. United States Dep't of Energy - Bonneville Power Admin., 23 F.E.R.C. ¶61,378, 61,801 (1983). See also 18 C.F.R. § 300.21(e). The purpose of Commission review of BPA's power rates is to ensure that those rates are sufficient to repay the federal investment in the FCRPS over a reasonable number of years after first meeting BPA's other costs; and are based on BPA's total system costs. 16 U.S.C. § 839e(2).

Pursuant to Northwest Power Act § 7(i)(6), 16 U.S.C. § 839e(i)(6), the Commission has promulgated rules establishing procedures for the approval of BPA rates. 18 C.F.R. 300 (1984). The Commission adopted a final rule amending these procedures effective July 6, 1987. 52 Fed. Reg. 20,704 (1987).

CHAPTER II

IP-PF RATE LINK EXTENSION PROPOSAL

A. Derivation and Application of the Existing IP-PF Rate Link

1. Development of the IP-85 Rates

Beginning in the 1985 general rate case, and continuing through all subsequent BPA wholesale power rate filings, BPA developed and applied new methodologies for determining the IP rate to comply with the post-1985 rate directives contained in the Northwest Power Act. Before July 1, 1985, the IP rate was based on costs allocated to the DSI customer class as directed in § 7(c)(1) of the Northwest Power Act. Those costs were then reduced by the value of system reserves the DSIs provide through BPA's contractual rights to interrupt portions of their loads. 1987 Link ROD at 5.

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 preference customers. The resulting DSI rate level is subject to the floor rate provisions of § 7(c)(2) which provide for a minimum DSI revenue recovery. If the margin-based IP rate level is less than the floor rate, the IP rates are defined by the floor rate. The value of reserves credit is then subtracted. 1987 Link ROD at 5-6.

In implementing the post-1985 directives for determining the IP Premium and IP Standard rate levels for the 1985 wholesale rate filing, BPA first derived a fiscal year (FY) 1987 unadjusted margin for preference customers. The calculation used historical and prospective cost of service data for 19 utilities having 49 retail

industrial customers with a minimum of 3.5 megawatts of peak demand per consumer. 1987 Link ROD at 6.

The size of load adjustment was then made to the FY 1987 unadjusted margin. The result was the Premium margin, the margin which recognizes quality of service provided under the IP Premium rate. The size of load adjustment accounts for the lower per-kilowatthour costs of delivery (distribution) facilities installed to serve the larger DSI loads. 1987 Link ROD at 6.

To derive the IP Standard margin, the margin that 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 IP Premium rate. 1987 Link ROD at 6.

The IP Premium rate margin derived for the 1985 wholesale power rate filing was 2.82 mills per kilowatthour (kWh). The character of service adjustment to the IP Premium margin was .54 mills/kWh, resulting in an IP Standard rate margin of 2.28 mills/kWh. 1987 Link ROD at 6.

To determine the applicable wholesale rate in the 1985 wholesale rate proceeding, BPA applied the PF rate charges for demand and energy (prior to the floor rate adjustment and other adjustments) to the forecasted DSI demand and energy billing determinants. Had BPA's preference customers been expected to purchase power under the NR rate schedule, the expected sales under

the NR rate charges would also have been factored into the applicable wholesale rate calculation. 1987 Link ROD at 6.

The IP Standard margin was then added to the applicable wholesale rate to obtain the margin-based IP Standard rate. 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 differential between the IP Premium margin and the IP Standard margin, .54 mills/kWh, was added to the IP Standard rate to determine the level of the IP Premium rate. 1987 Link ROD at 6.

Finally, BPA calculated the value of reserves (VOR) credit to reflect the value of BPA's contractual rights to restrict the DSI loads under certain specified conditions. The federal generation system can use the rights to restrict the DSI load 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 these reserves. 1987 Link ROD at 6.

The actual amount of the VOR credit to the DSIs was 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/kWh. This amount was applied to the final IP-85 Premium and IP-85 Standard rates. 1987 Link ROD at 7.

2. Development and Implementation of the IP-PF Rate Link Methodology

In its 1986 IP-PF Rate Link Proposal, BPA proposed a formula for the IP-PF rate link which consisted of two components: (1) the effective rate link, or the net Premium and net Standard margins, determined in the 1985 rate case; and (2) an inflation adjustment. 1987 Link ROD at 7.

The link methodology adopted in the IP-PF-86 proceeding was based on the results presented in the Final 1985 Section 7(c)(2) Industrial Margin Study and the Final Wholesale Power Rate Design Study. WP-85-FS-BPA-04 and -05; 1987 Link ROD at 7. The link was proposed to be effective for the period beginning July 1, 1985 (the effective date of the 1985 rates), through the last rate period commencing on or before June 30, 1990. The link was first applied in BPA's 1987 wholesale power rate filing. In the 1985 rate case, the net Premium margin was .92 mills/kWh, the difference between the IP Premium margin of 2.82 mills/kWh and the VOR credit of 1.90 mills/kWh. The character of service adjustment was .54 mills/kWh. Therefore, the net Standard margin was .38 mills/kWh (.92 mills/kWh less .54 mills/kWh). 1987 Link ROD at 7.

The link methodology was first implemented in BPA's 1987 wholesale power rate filing. See WP-87-FS-BPA-06A at 317. The IP Premium rate was set equal to the Applicable Wholesale Rate (BPA's wholesale power rates developed for power purchases by preference customers, adjusted for DSI load shape, as determined for the 1987 rate filing) plus the inflation-adjusted net Premium margin (.92 mills/kWh). The IP Standard rate was set equal to the Applicable

Wholesale Rate (determined for the 1987 rate filing) plus the inflation-adjusted net Standard margin (.38 mills/kWh). (The net Premium and net Standard margins are inflated by the Gross National Product (GNP) deflator for the test period relative to the GNP deflator for FY 1987, which was used in the 1985 rate filing and which is the base for inflation adjustments in future rate filings. See Attachment 1 at 2.) The same values for the VOR credit and the character of service adjustment developed in the 1985 rate filing were used in the 1987 rate filing.

B. Evaluation of Proposal to Extend the IP-PF Rate Link

The purpose of the proposal to extend the existing IP-PF rate link is to maintain a mid-term (5-year) ratemaking method based on results derived in BPA's 1985 rate filing. E-BPA-01 at 3, lines 5-9. Extending the link will continue BPA's load planning certainty by providing BPA's DSI customers with improved rate predictability for the mid-term. Improved rate predictability reduces the likelihood of plant closures. BPA thus would be able to forecast more accurately its resource and revenue needs. E-BPA-01 at 2, lines 19-20. Extending the link will also reduce the need for data collection requirements and the controversy associated with setting the IP rate level in future BPA rate cases. E-BPA-01 at 2, lines 20-22.

The existing link methodology is effective through the last rate period commencing on or before June 30, 1990. In order for the link to continue to achieve its purpose and goals, the methodology must be extended. BPA proposes to extend and continue

the use of the existing methodology through rate periods commencing on or before the termination of the existing VI rate contracts, or September 30, 1995, whichever is later. E-BPA-01 at 5, lines 19-21.

BPA believes the extension will provide medium-term rate and revenue predictability for BPA. Moreover, it covers a reasonable time horizon in which the DSIs can plan for investments and operations under conditions of rate predictability. See B-DS-01 at 1-2, 6-7. The proposed extension, covering the remaining period for which the VI rate will be in effect, also allows revisitation within a reasonable time to assure that the link is still appropriate. Both the IP-PF rate link and the VI rate are intended to provide stability to DSI loads. E-BPA-01 at 5-6.

In the 1985 wholesale power rate proceeding, BPA determined that the IP-PF rate link is consistent with Northwest Power Act §§ 7(c)(2) and 7(c)(3). Neither the legislative directives nor the proposed methodology has changed, so BPA's proposal is consistent with statute. E-BPA-01 at 4, line 7, through 5, line 6; B-DS-01 at 4-5.

BPA has not performed new studies to update the factors contained in the methodology. Although there have been some modest changes in circumstances since 1985, in the judgment of BPA's witness, the link is still a reasonable representation of BPA's interpretation of the requirements of § 7(c)(2) of the Northwest Power Act. Updates of analyses might result in changes to individual components of the net margins, but these updates would require extensive effort both by BPA and its customers, and could create considerable controversy. Moreover, BPA does not expect

that changes in the margins, VOR credit and character of service adjustment would change the resulting link significantly from the net margins calculated in the 1985 rate case. This expectation derives from the inherent stability of the factors themselves, and the off-setting nature of changes in the various factors. E-BPA-01 at 8, lines 13-22; see also B-DS-01 at 5-6.

CHAPTER III

ENVIRONMENTAL IMPACTS

A. Introduction

The National Environmental Policy Act of 1969, 42 U.S.C § 4321 (1970), requires that environmental impact analyses be performed before making decisions on major federal actions that significantly affect the environment. In April of 1986, BPA completed the DSI Options Final Environmental Impact Statement (DOE/EIS-0123F) (Final EIS) which analyzed the potential effects of three options (actions) that BPA was considering at the time. The purpose of those options was to stabilize the electrical load of BPA's DSI customers in order to enhance BPA's revenue stability and facilitate resource planning. The three options were (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) the IP-PF rate link. These options were not alternatives to each other since each could be implemented independently. BPA implemented all three options.

The Final EIS considered alternate forms of the IP-PF rate link as well as the no action alternative. Alternatives considered in the EIS related to the duration of the IP-PF rate link and the means by which it might be implemented. The 1987 Link ROD selected the environmentally preferable alternative, i.e., implementation through policy rather than through contract, and an approximate 5-year initial duration, because this combination minimized the potential for adverse rate impacts to customers while still affording the desired rate predictability to the DSIs.

The following discussion pertains only to the extension of the IP-PF rate link. It does not resolve issues pertinent to the continuation of the VI rate or to the Con/Mod program. However, in making its decision on the link extension, BPA considered the same potential impacts identified in the EIS that were considered in the initial implementation of the link when it was adopted in 1987.

B. Environmental Impact Considerations

The Final EIS still serves as an adequate basis for providing environmental information relative to the decision to extend the IP-PF rate link. The Final EIS addressed the impacts of the link qualitatively because the effects of the rate link result from the DSIs' perception of the degree of rate and planning certainty the link would provide. The value of this perception cannot be quantified, nor can its effects be modelled. Final EIS at 114.

In deciding to extend the IP-PF rate link, it was not necessary to consider alternatives other than to extend the link in its current form for approximately five years and to let the current rate link expire. The consequences of other alternatives analyzed in the Final EIS would still be as projected in the Final EIS. A duration of approximately five years and implementation through policy remains the environmentally preferred alternative for the extension of the link for the same reasons described in the 1987 Link ROD.

Experience with the IP-PF rate link, coupled with the VI rate and the Con/Mod program which were also implemented, has demonstrated a stabilizing effect on DSI loads, as was projected in

the EIS and as was intended. To the extent that the link has stabilized DSI load, socio-economic benefits projected by the EIS have been achieved. Closure of certain at-risk DSIs, which presumably the link helped prevent, would have resulted in locally significant adverse socio-economic effects in some smaller communities in which the DSI plant was and is a major economic force in terms of employment, payment of taxes and the like.

The DSIs continue to have adverse effects on the physical environment (for example, discharge of air and water pollutants, production of solid waste and the like) as reported in the Final EIS, but these effects are regulated by appropriate state, federal and local environmental agencies, and remain governed by environmental laws, regulations and permit conditions. It appears that some of the specific environmental problems, primarily dealing with past solid waste disposal practices, with the DSI aluminum smelters reported in the Final EIS are being dealt with, reducing environmental impacts. The Final EIS included consideration of the entire range of expected physical and socio-economic effects of the operation of the aluminum smelters in the sense that it addressed both impacts which would result from operation of the plants at their full production capacity as well as the impacts which would result from their closure. Thus the continued stabilizing effect on DSI loads expected as a consequence of extending the link is not expected to result in environmental impacts beyond the range of potential impacts projected for the aluminum smelter DSIs in the Final EIS.

The extension of 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 continued rate and planning certainty provided by an extension of the IP-PF rate link may encourage additional investment in plant modernization and forestall plant closures because of greater assurance of investment recovery. Final EIS at 115. 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 socio-economic effects.

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

BPA has implemented the VI rate and the Con/Mod program for aluminum smelters. Continuing the link will augment the impacts of these other two BPA actions, both of which are directed at stabilizing aluminum smelter loads. Final EIS at 122.

BPA believes that the initial formulation of the link is still reasonable, and that the values for the margins and the VOR are expected to remain stable throughout the period of the proposed

extension of the link. The stability of the factors comprising the link reduces the risk that the aluminum smelter DSI customers, or BPA's other customers, will experience inequities resulting from discrepancies between the true values of the margins and the VOR credit, and those embodied in the link methodology.

CHAPTER IV

CONCLUSION

The proposed IP-PF Rate Link methodology is consistent with the rate directives of the Northwest Power Act and other applicable legislation. It has and will continue to provide BPA with greater revenue stability, and therefore enhances BPA's ability to meet its planned payments to the U.S. Treasury. The underlying methodology used in determining the link is sound, and would yield similar results in the face of modest changes in circumstances. Extending the link will reduce controversy in future rate cases. In addition, based on the analysis in the Final EIS, an extension is not expected to result in environmental impacts which are unforeseen or unacceptable. Finally, as evidenced by the absence of opposition to BPA's proposal, BPA's customer groups support the proposed IP-PF rate link extension.

In performing his duties under Northwest Power Act § 7(i), the Hearing Officer has assured that a full and fair evidentiary hearing, open to all interested parties and participants, has been conducted on all issues relevant to this case.

Based upon the record of this proceeding, I adopt as BPA's final rate the attached IP-PF Rate Link methodology.

Issued at Portland, Oregon, on November 19th, 1990.

ATTACHMENT 1

IP-PF RATE LINK METHODOLOGY

A. Terms and Definitions

Section 7(c)(1)(B) of the Northwest Power Act provides 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) provides that rates to the DSIs are to be based upon the following: (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 § 7(c)(2), which provides for a minimum DSI rate level. Relevant terms are defined as follows:

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

b. Premium Margin. The typical margin above wholesale power costs referred to in § 7(c)(2) of the Northwest Power Act, adjusted for the size of DSI loads. As determined in the 1985 Administrator's Record of Decision for BPA's rate adjustment proceeding, calculation of the Premium margin recognizes that, in the test year for which those rates were set, none of the service to the DSI first quartile under the IP Premium rate was dependent on the availability of nonfirm energy.

c. Standard Margin. The typical margin above wholesale power costs referred to in § 7(c)(2) of the Northwest Power Act, adjusted for the size of load and the character of service to the first quartile. As determined in the 1985 Administrator's Record of Decision, 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.

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

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

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

g. IP-PF 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.

h. 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.

i. 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.

j. IP Premium Rate. The rate option contained in the IP rate schedule which includes first quartile service with Surplus FELCC. The level of the IP Premium 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 further adjustments, specifically any § 7(b)(2) and § 7(b)(3) adjustments, or scaling to adjust for the rate period extending beyond the test year, to determine the IP Premium rate.

k. IP Standard Rate. The rate option contained in the IP rate schedule which includes first quartile service with nonfirm energy and/or provisional drafts. The level of the IP Standard 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 margin-based rate may be subject to further adjustments, specifically, any § 7(b)(2) and/or § 7(b)(3) adjustments, or scaling to adjust for the rate period extending beyond the test year, to determine the IP Standard rate. [NOTE: In BPA's 1987 rate filing, it was determined that the 7(b)(3) adjustment was zero. However, BPA has not received final approval of its 1987 rates from FERC.]

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

B. Formulae

The proposed IP-PF Link incorporates the following formulae:

1. $$IP_p = AWR + \left[.92 \times \frac{\text{GNP deflator (year)}}{\text{GNP deflator (1987)}}\right]$$

2. $$IP_S = AWR + \left[.38 \times \frac{\text{GNP deflator (year)}}{\text{GNP deflator (1987)}}\right]$$

Where:

"IP_p" is the IP Premium margin-based rate (mills per kilowatthour) or its successor, as determined by the Link.

"IP_S" is the IP Standard margin-based rate (mills per kilowatthour) or its successor, as determined by the Link.

"AWR" is the Applicable Wholesale Rate, as referred to in § 7(c)(2) of the Northwest Power Act, to BPA's public body and cooperative customers. The AWR is the weighted average of the 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 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 for resale to new large single loads) applied to the DSIs' demand and energy billing determinants as forecasted in the § 7(i) proceeding in which the Link is applied.

".92" is the Fiscal Year (FY) 1987 net Premium margin, based on 100 percent service to the first quartile, none of which is dependent on the availability of nonfirm energy, as determined in the 1985 ROD.

".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 ROD.

"GNP deflator (1987)" is the GNP deflator Index for 1987.

"GNP deflator (year)" is the GNP deflator Index for the test year in subsequent § 7(i) proceedings where the IP rates are to be determined by the Link.

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

1. Except as required by the floor rate provision of the Northwest Power Act, the IP test year rates shall be determined in any § 7(i) proceeding to establish rates effective on or before the termination date of the VI rate contract, or September 30, 1995, whichever is later, by the formulae in paragraph B. The purpose of the formulae is to eliminate the need to recalculate during the term of the Link the value of reserves (including the VOR credit) and the "typical margin", net of adjustments as set forth in §§ 7(c)(2)(A), (B) and (C) of the Northwest Power Act. The only variables in the formulae are "AWR" and "GNP deflator (year)." That is, for each § 7(i) proceeding in which the Link is applied, "AWR" shall be calculated from the PF and NR rates as determined in that proceeding and "GNP deflator (year)" shall be the GNP Index for the test year used for all other purposes in that proceeding.

If the test year is a prospective period, then "GNP deflator (year)" will be the forecasted GNP deflator index used for all other purposes in the rate proceeding. Further, if the IP rates determined by the Link will be effective for periods other than the 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 paragraph B, rather than the § 7(c)(2) floor rate, govern the applicable IP rates, then, in addition to any potential § 7(b)(3) obligations on the part of the DSIs, including surcharges arising from the "triggering" of the § 7(b)(2) rate test, the DSIs shall also be subject during the term of the Link to adjustment clauses, surcharges, or credits uniformly applicable to the PF rate schedule. Such adjustments would include the Cost Recovery Adjustment Clauses uniformly applicable to purchases under the PF and NR rate schedules. For

purposes of the prior sentence, the Low Density Discount and Irrigation Discount available to some 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 as described in paragraphs B.1.a. and C.1. BPA will also make available to the DSIs, on an optional basis, service, the qualities of which shall be specified by the Variable Rate Contract and which shall remain unchanged while the contract is in force throughout the duration of the Link, at the rates established as described in paragraphs B.1.b and C.1.

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