

Administrator's Record of Decision

BPA

1985 Firm Displacement Power Rate Proposal

U.S. Department of Energy
Bonneville Power Administration

June 1986

FD-85-A-02

1985 FIRM DISPLACEMENT
POWER RATE PROPOSAL
ADMINISTRATOR'S RECORD OF DECISION

Bonneville Power Administration

U.S. Department of Energy

June 1986

ADMINISTRATOR'S RECORD OF DECISION

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Chapter I - Introduction	1
A. Development of the Proposed Firm Displacement Rate.	1
B. Procedural History of the Rate Proceeding	1
C. Organization of Record of Decision.	2
D. Legal Requirements.	3
1. General Rate Guidelines.	3
2. Confirmation and Approval.	4
Chapter II - Benefits of the Proposed FD-85 Rate Schedule.	5
Chapter III - Features of the Proposed FD-85 Rate Schedule	19
A. Rate Level.	19
B. Demand Charge	21
C. Energy Charge	30
D. Cost Basis.	32
E. Partial Year Service Adjustment	39
F. Extended Peaking and Rate of Return Surcharges.	40
G. Billing Factors	41
H. Pacific Northwest Use of FD Power	42
I. Surcharge for FELCC Shift	44
J. Seasonal Differentiation.	45
Chapter IV - Other Issues.	47
A. Availability of Surplus	50
B. Matching Load Factor and Shape.	54
C. Availability Charge	56
D. Reservation of Power for Future Sales	57
E. Delivery and Return of Peaking Capacity	60
F. Term of Contract.	62
G. Intertie Access Policy.	65
H. Average System Cost	67
I. Regional Preference	68
 <u>Appendices</u>	
Appendix A Party Abbreviations.	A-1
Appendix B Party Witnesses and Representatives.	B-1
Appendix C Participants Commenting.	C-1
Appendix D Firm Displacement Rate Schedule and General Rate Schedule Provisions	D-1
Appendix E Calculation of FD-85 Rate.	E-1
Appendix F FD-85 Average Rates.	F-1
Appendix G Forecasted Surplus Firm Power and Firm Displacement Rates.	G-1

Chapter I

INTRODUCTION

A. Development of the Proposed Firm Displacement Rate

Bonneville Power Administration (BPA) first proposed a Firm Displacement Power (FD) rate in September 1984 as part of the initial 1985 wholesale rate proposal. The proposed FD rate was part of a package of rates designed to provide BPA flexibility in marketing its surplus firm power in a competitive and uncertain market. Believing that the rate needed further study, on December 11, 1984, BPA withdrew the proposed FD rate from consideration in the 1985 rate proceeding.

BPA continued to pursue discussions with Pacific Northwest (PNW) and Pacific Southwest (PSW) utilities regarding potential sales of PNW surplus firm power to California markets. When several utilities expressed interest in the FD concept (in which BPA would sell its surplus firm power on a long-term basis to PNW utilities, who would use the FD power to serve their regional load and make a long-term firm sale of their own generating resources to the PSW), BPA held a series of weekly informal public meetings. The series of meetings, which began in June 1985, included discussion of contract issues.

After assessing the discussions held at the first four meetings, BPA announced at the July 12, 1985, meeting that the FD rate would be developed in a hearing process pursuant to section 7(i) of the Pacific Northwest Electric Power Planning and Conservation Act (Pacific Northwest Power Act).

B. Procedural History of the Rate Proceeding

On September 17, 1985, BPA published in the FEDERAL REGISTER the Proposed Firm Displacement Rate and Opportunity for Public Review and Comment (50 FR 37722). The Notice initiated the section 7(i) proceeding on the FD rate. The proposed effective date for the FD rate is August 1, 1986.

In accordance with section 7(i) of the Pacific Northwest Power Act, 16 U.S.C. §839e(i), an evidentiary hearing on the proposed FD rate was conducted by Judge Dean F. Ratzman and Judge William J. Sweeney, Hearing Officers. Eighteen interventions were filed by BPA's publicly owned and investor-owned utility (IOU) customers, direct service industrial (DSI) customers, customer groups, consumer groups, State agencies, gas utilities, and California parties. Judge Ratzman began the hearings with a prehearing conference on September 27, 1985, at which he granted party status to intervenors and discussed procedural schedules. Judge Ratzman issued a procedural schedule on October 2, 1985.

BPA's initial proposal included the written testimony and exhibits of its witness. The parties filed direct testimony on November 8, 1985. BPA filed motions to strike portions of the parties' direct testimony on December 9, 1985. Rebuttal testimony of all parties was filed on December 20, 1985. When

BPA's motions to strike were denied, BPA filed supplemental rebuttal testimony on January 23, 1986.

BPA responded to numerous data requests concerning its initial proposal. Two days of clarification sessions (transcribed oral discovery) were conducted on October 3 and November 14, 1985, to clarify BPA's and the parties' prefiled testimony, respectively.

Cross-examination took place before Judge Sweeney on February 11 and 12, 1986. Parties presented oral argument on March 7, 1986, before a panel comprised of Edward W. Sienkiewicz, Assistant Administrator for Power and Resources Management; Walter E. Pollock, Assistant Power Manager for Marketing; and Harvard P. Spigal, General Counsel. Opening briefs were filed March 10, 1986. The Draft Record of Decision, issued April 11, 1986, presented the Administrator's draft decisions on each of the issues raised in the FD rate proceeding, based upon review of the evidence, oral arguments, and the initial briefs. Those draft decisions were not final in either the legal or the practical sense. The Administrator reconsidered his decisions based on the parties' reply briefs, which were filed April 28, 1986.

BPA prepared an Environmental Assessment on the proposed FD-85 rate, which was made available for public comment. The Environmental Assessment showed that the establishment of the FD rate would result in no significant environmental impact. The Department of Energy has approved BPA's Finding of No Significant Impact. See FONSI.

This Record of Decision is issued June 6, 1986.

C. Organization of Record of Decision

This Record of Decision is comprised of four chapters. This Introduction is the first chapter. The second chapter discusses the Benefits of the Proposed FD-85 Rate Schedule. The third discusses the Features of the Proposed FD-85 Rate Schedule. The fourth chapter includes discussion of Other Issues, which BPA believes are relevant to the contracts that will define the FD sales or other BPA policies, but not relevant to the proposed rate schedule itself.

Within each chapter specific issues raised by the parties are identified. The evaluation of each issue is in three sections. First, the parties' and BPA's positions on the issue are summarized, with citations to the record. Second, the positions are evaluated, noting the arguments on the record and presenting BPA's evaluation of the arguments. Third, the Administrator's decision on each issue is presented.

D. Legal Requirements

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. 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 capital investment over a reasonable period 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: (1) 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; (2) 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 (3) 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 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 rates for individual customer groups are derived. Section 7(f) describes how the rates for surplus firm power sold within the Pacific Northwest shall be based on the costs of the resources used to make such sales. Section 7(i) prescribes formal ratesetting procedures for BPA.

2. Confirmation and Approval

The Pacific Northwest Power Act specifies in section 7(a)(2) that rates become effective upon interim or final approval by the Federal Energy Regulatory Commission. 16 U.S.C. §839e(a)(2). The Commission must review BPA's rates to determine that: (1) 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; (2) rates are based on BPA's total system costs; and (3) 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.

Chapter II

BENEFITS OF THE PROPOSED FD-85 RATE SCHEDULE

Issue #1

Have past and current BPA rate schedules been effective in marketing and recovering the costs of BPA's surplus firm power?

Summary of Positions

Sales under the SP-85 rate schedule have not recovered the fully allocated cost of surplus firm power. Historically, BPA's sales of surplus firm power under previous rate schedules also have not recovered fully allocated cost. Carr, BPA, E-BPA-02R, 2.

APAC, PPC, and SCL urge rejection of the proposed FD rate as an additional marketing tool because they claim the market for power at the SP rate is strong and BPA has been recovering more SP-85 revenue than was projected. Opening Brief, APAC, B-PA-01, 10; Opening Brief, PPC, B-PP-01, 22; Opening Brief, SCL, B-SL-01, 14.

Evaluation of Positions

BPA demonstrated that in the first 5 months of the SP-85 rate period, sales of BPA's surplus firm power have been made at rates lower than the fully allocated cost of the power. Carr, BPA, E-BPA-02R, 3. Monthly load factors during that period ranged from 50 percent to 79 percent, implying fully allocated average costs between 31.8 and 38.1 mills/kWh. However, the average revenues actually received ranged from 27.2 to 28.3 mills, including all charges for peak period delivery and Intertie service. Id. If BPA had been able to make these same sales at the same load factors but at the FD-85 rate schedule charges, over \$25 million more in revenue would have been received in these 5 months alone. Id.

The inability to recover costs is also demonstrated by a review of BPA's historical SP sales. Carr, BPA, E-BPA-02R, 3-4. During the SP-1 rate period, BPA received SP revenues that were almost \$140 million less than forecast. Id. During the SP-83 period, revenues were \$277,000 less than forecast. Id. These figures do not include revenue losses projected in the 1983 rate case from the anticipated sales of surplus firm power in the nonfirm energy market. Id. These additional losses were forecast to equal about \$65 million under SP-83 on a test-year basis. Id.

APAC argues that, if all BPA sales had been made at the SP-85 Contract rate, BPA would have received more revenue than if the sales were made at the FD rate. Opening Brief, APAC, B-PA-01, 5. APAC bases this argument on data for 3 months of sales at the SP-85 rate. Cook, APAC, E-PA-01, 12. APAC's argument ignores the rates actually paid for these sales. The SP rates actually received are lower than the SP Contract rate, because rates for

short-term economy energy sales are determined in part by market forces in California. Carr, BPA, E-BPA-02R, 3. APAC fails to point out that the data it presents show that these sales were made at rates below fully allocated cost. Carr, BPA, E-BPA-02R, 3. APAC argues that BPA assumed without foundation that SP sales will continue to be made at below-cost rates. Opening Brief, APAC, B-PA-01, 5. However, there has been additional erosion in 1985 of BPA's ability to make sales of surplus firm power at fully allocated cost. Carr, BPA, E-BPA-02R, 3. Since July 1985, BPA has never been able consistently to make sales at fully allocated cost with the load factors experienced. Id.

SCL points out that in the first 5 months it was effective, the SP rate schedule recovered \$60 million over projected revenues. Opening Brief, SCL, B-SL-01, 14. PPC refers to the same overrecovery, but in the amount of \$30 million. Opening Brief, PPC, B-PP-01, 22. SCL argues that BPA does not explain how the FD rate would have produced the same \$60 million overrecovery as SP during the first 5 months of the rate period. Opening Brief, SCL, B-SL-01, 14. The overrecovery of SP revenues during the first 5 months, however, does not demonstrate that BPA would recover its costs on average for the entire rate period. Carr, BPA, E-BPA-02R, 3. This is because monthly forecasts of SP revenues for the rate period are levelized; greater than average revenues from SP sales are in fact gained at different times of the year. Carr, BPA, TR 380. An overrecovery of projected revenues was to be expected during the first 5 months of the rate period. Id. In addition, BPA demonstrated that for the first 5 months of the SP-85 rate period, if BPA had made the same SP sales at the same load factors but at the FD-85 rate schedule charges, BPA would have received over \$25 million more in revenues. Carr, BPA, E-BPA-02R, 3.

SCL argues that actual sales at the SP-85 rate "have followed projections fairly closely." Nelson, SCL, E-SL-01A, 3-4. However, this point is not established by SCL's exhibit, which shows only actual sales and revenues, not projections. Id.; E-SL-08. In fact, sales at the SP rate have consistently recovered revenues less than fully allocated cost. Carr, BPA, E-BPA-02R, 3-4 and Attachment 4. In addition, comparisons of historical revenues received and the levels of the rates at particular load factors tell less than the full story. The parties focus on rate case forecasts, overlooking the fact that those forecasts include a projected underrecovery of surplus power costs. The FD rate would allow BPA to market more of its surplus firm power, and receive more revenue, than would be possible using the SP rate alone. Carr, BPA, E-BPA-02R, 7-8; TR 211. In addition, sales made at the proposed FD rate would provide long-term revenue stability to BPA and enhance resource planning by means of rate predictability for the PNW and PSW. Carr, BPA, E-BPA-01, 4; Hammerquist, PP&L, E-PL-02R, 9-10; Opening Brief, PP&L, B-PL-01, 2-3.

Decision

Past and current rate schedules historically have not been fully successful in marketing and recovering the costs of BPA's surplus firm power. This militates in favor of adoption of the FD rate to supplement BPA's surplus

firm power rates. Sales at the FD rate would enhance BPA's ability to market its surplus firm power at fully allocated cost on a long-term basis, providing revenue benefits to BPA.

Issue #2

Are existing BPA rate schedules adequate to market and recover the costs of BPA's surplus firm power in the future?

Summary of Positions

SCL argues that the FD rate proposal was made without any accompanying analytical support, and no studies were performed to evaluate the revenue impacts of sales under the FD rate on BPA. Opening Brief, SCL, B-SL-01, 13, 17; Nelson, SCL, E-SL-01A, 2; Id., E-SL-01AR, 2.

APAC claims that "BPA's brief statement of the alleged benefits of the FD rate is insufficient to justify adopting the rate." Opening Brief, APAC, B-PA-01, 5-6; Cook, APAC, E-PA-01, 2, 7, 11.

PPC states that "[n]o studies were performed to support assertions that FD sales will contribute to BPA's ability to meet its repayment obligations." Opening Brief, PPC, B-PP-01, 5-6; Wolverton and Drummond, PPC, E-PP-01, 3, 5; E-PP-02R, 1-2, 13.

APAC and PPC both appear to argue that FD sales would reduce BPA's other sales of surplus firm power. Cook, APAC, E-PA-01, 12; Opening Brief, APAC, B-PA-01, 11, 14-15; Wolverton and Drummond, PPC, E-PP-01, 13.

APAC and PPC claim that the market for SP power is stronger than BPA assumes. Opening Brief, APAC, B-PA-01, 10; Opening Brief, PPC, B-PP-01, 23-24; Wolverton and Drummond, PPC, E-PP-01, 13. APAC argues that BPA's assumptions regarding the future market for SP power are unreasonably pessimistic. Opening Brief, APAC, B-PA-01, 5-7, 10-11.

BPA has presented various analyses demonstrating the failure of current and past surplus firm power rates to recover fully allocated cost, the risk of relying on short-term surplus firm power and nonfirm energy sales, and the benefits of the proposed FD rate schedule. Carr, BPA, E-BPA-02R, 2-6.

PP&L "presented a detailed evaluation of the benefits of an FD transaction to BPA." Opening Brief, PP&L, B-PL-01, 2; Hammerquist, PP&L, E-PL-02R and -03R. The PP&L study shows that "for any level of FD sale, the benefits will be positive compared to the rate alternatives." Id., E-PL-02R, 3-4.

Evaluation of Positions

Analysis of the Market for Firm Displacement Power

SCL argues that "no studies or analyses have been presented to justify that a market does, in fact, exist for the proposed FD power or to estimate

the size and stability of such a market, if any." Opening Brief, SCL, B-SL-01, 13-14; Nelson, SCL, E-SL-01A, 2. PPC states that "[n]o studies were undertaken to support assumptions regarding BPA's ability to market surplus firm power, capacity, and nonfirm energy in the export market." Opening Brief, PPC, B-PP-01, 5. Contrary to the allegations of SCL and PPC, projections of the prospective FD market have been presented in this proceeding. E.g., Hammerquist, PP&L, TR 430; Hammerquist, PP&L, E-PL-02R, 3. Also, BPA has held discussions of the FD concept since 1984 with prospective FD purchasers and other interested parties. These discussions resulted in the conclusion that BPA should proceed with development of an FD rate and FD contract principles in order to meet the prospective market. BPA's analysis of markets for surplus firm power and nonfirm energy is discussed below. The need for greater analysis of the FD market has not been established. Even assuming no market for FD sales, there would simply be no revenues from such sales. There would be no loss to BPA from having developed the FD rate.

Furthermore, BPA has analyzed the FD and surplus firm power market in its analysis of surplus sales to date. As discussed above, BPA has determined that past reliance on sales at the SP and NF rate schedules has not allowed BPA to market its surplus firm power at fully allocated cost. BPA has demonstrated the economic risks of not having an FD rate. Carr, BPA, E-BPA-02R, 4. Without an FD rate schedule, BPA would attempt to sell its surplus by making long-term and short-term bilateral sales under the SP rate schedule. Id. While BPA hopes to establish long-term bilateral sales in the future, BPA has been attempting to negotiate such contracts with extraregional buyers for 4 years and no such contract yet has been concluded. Id. Sales will continue to be made using the SP rate, but BPA needs the FD rate to provide an added dimension to its marketing program.

BPA also notes the risks associated with relying on short-term SP sales. Carr, BPA, E-BPA-02R, 4-5. The spot or short-term market for economy energy is subject to uncertainties associated with the price and availability of competing fuels, particularly gas and oil. Id. Second, relying on the short-term market eliminates opportunities for PSW utilities to defer capital investment in renovation or construction of resources in the Pacific Southwest, since short-term sales at the SP rate are able to displace only variable costs of production. Id. Third, BPA has been suffering revenue losses relative to fully allocated costs in making short-term sales. Finally, weather and the availability of California hydro also affect BPA's ability to make short-term sales of surplus firm power. Id.

BPA also demonstrated that there are significant risks in marketing surplus firm power in the nonfirm energy market. Carr, BPA, E-BPA-02R, 5. Sales of surplus firm power at nonfirm energy rates entail revenue losses in all cases. Id. There is no nonfirm energy rate that comes close to recovering the cost of BPA's surplus firm power. Id. The problems associated with the short-term market for SP are also present in the attempt to sell nonfirm energy. Id. Without FD, and as a worst case, all of BPA's surplus firm power could be forced to be sold at the NF rate schedule. Carr, BPA, E-BPA-02R, 2. A comparison of projected SP rates at 55 percent load factor

and NF Standard rates shows a difference of 13 to 15 mills per kilowatthour during FY 1987-1991. Id. Thus, if BPA were forced to sell surplus firm power at the NF Standard rate due to the constraints of the short-term market, BPA would face a revenue deficiency of 13 to 15 mills for every kilowatthour of energy sold. Id., 2-3. This revenue deficiency could be as high as \$120 million per year if 1000 megawatts of firm power surplus were sold at nonfirm energy rates. Id. With the current decline in gas and oil prices calling into question the marketability of the Standard rate, the revenue deficiency could be much higher.

APAC argues that BPA's comparison with nonfirm rates assumes that the NF rate represents the opportunity cost for power BPA proposes to sell under the FD rate schedule. APAC argues that this is improper, since BPA does not intend to sell FD power at the NF rate if the FD rate is not adopted. Opening Brief, APAC, B-PA-01, 6. APAC's argument is incorrect. Market conditions are not fully known for the future. Historically, such conditions have forced the sale of surplus firm power at nonfirm energy rates. These events seem likely to continue in the future. APAC also alleges that BPA overstates the difference between SP and NF rates by assuming a 55 percent load factor for SP sales, noting that sales at nonfirm rates are frequently at higher load factors. Opening Brief, APAC, B-PA-01, 6. This argument is not persuasive, however, because at any nonfirm energy rate, the cost of surplus firm power at any load factor is not recovered. Finally, APAC alleges that BPA ignores that some surplus power sold as nonfirm energy would include the guarantee surcharge. This argument is of little weight, since the guarantee surcharge can recover only 2.0 mills per kilowatthour; the highest guaranteed nonfirm energy rate that BPA can charge is still less than the fully allocated cost of surplus firm power.

APAC alleges that BPA did not analyze the level of FD sales actually expected. Opening Brief, APAC, B-PA-01, 5. The point, however, is not whether BPA sells 5 megawatts of FD power or 1500 megawatts of FD power. BPA has demonstrated that, regardless of the amount of FD power sold, if surplus power continues to be sold below fully allocated cost, BPA will continue to undercollect revenue. The FD rate is proposed to enhance BPA's efforts to market its surplus at fully allocated cost on a long-term basis, by giving the Administrator additional flexibility by providing an additional marketing tool. Carr, BPA, E-BPA-01, 4; E-BPA-02R, 5-8; TR 211; Opening Brief, PP&L, B-PP-01, 2-3; Opening Brief, PGE, B-GE-01, 2.

Two participants, SMUD and PG&E, commented that the FD rate is improperly designed, stating that it does not consider the value of the FD power to the ultimate purchaser in the transaction, a California utility. Participant letters W-03 and W-04. The two participants claim that the FD rate is too high to be a useful tool to market BPA's surplus firm power. Id. The only other participant commenting on the proposed FD rate, Mr. Obrist, stated that the FD rate should be set at a level higher than that proposed, to mitigate the subsidy this participant claims BPA receives from the U.S. taxpayers. Participant letter W-01. As set forth in section I.D., BPA is required to establish rates to recover BPA's costs. Specifically, section 7(f) of the

Pacific Northwest Power Act states that BPA's rates for sales of surplus firm power for use in the Pacific Northwest shall be based on the costs of the resources that are applicable to such sales. BPA continues to monitor market developments in California, and is concerned about the marketability of its surplus firm power. Carr, BPA, E-BPA-02R, 7. The FD rate reflects BPA's continuing efforts to market its surplus firm power. Carr, BPA, E-BPA-01, 4. However, marketability considerations must be balanced with BPA's obligation to recover its costs. Carr, BPA, TR 182.

Future Demand for Surplus Firm Power Sold at SP-85

APAC and PPC argue that opportunities for BPA SP sales should increase in the future because sales can be made to utilities which do not yet have access to transmission. Opening Brief, APAC, B-PA-01, 10-11; Opening Brief, PPC, B-PP-01, 23-24. PPC also states that "the prospective completion of additional interties and upgrading of current intertie capacity . . . will help bolster BPA's ability to make SP contracts." *Id.* PPC's assumption requires speculation about uncertain future events. Carr, BPA, E-BPA-02R, 7. New intertie facilities must first be constructed. New customers with access to the facilities must be interested in purchasing power from BPA. New customers must be willing to accept regional preference restrictions. New customers must be willing to pay whatever prices may exist in the future for surplus firm power sales. Even assuming the events noted above, such changes likely would not take place for years. As noted in Issue #1, BPA has experienced cost underrecovery in its SP sales for the past several years. While BPA is hopeful that future surplus firm power sales will recover BPA's costs, it is not prudent to forego alternative marketing mechanisms at this time.

PPC argues that, even if there were assumed to be benefits to an FD sale relative to an SP sale, those advantages "will decrease in the future." Wolverton and Drummond, PPC, E-PP-01, 13. PPC argues that "as the substantial capacity contracts with Southwest utilities expire in the next several years, Southwest utilities will be forced to seek replacements, assuming those utilities are not in surplus. The replacement demand for capacity will bolster the SP market." *Id.*, 12. The alleged strength of the demand for replacement capacity does not support the argument that BPA should not rely on several means for selling its surplus firm power on a long-term basis. In fact, if there is a market for replacement capacity in California, BPA should be ready and able to meet that market in as many ways as possible, to improve the chances that BPA's surplus firm power is actually sold on a long-term basis in California. In this case, the FD rate is a useful addition to the SP rate for sales in the Pacific Northwest. Also, as noted previously, since new contracts could not be negotiated for some years, failure to pursue current marketing options could cause BPA to continue to underrecover costs in the near future.

PPC suggests that BPA should make bilateral sales such as the Southern California Edison (SCE) proposal rather than attempting to make FD sales. See Issue #3 below. PPC then proposes that BPA's surplus firm power remaining after serving SCE should be sold at the SP rate, which is "higher" than the proposed FD rate. Opening Brief, PPC, B-PP-01, 21-22. PPC claims that the

surplus firm power remaining after the SCE sale "could be marketed in the short-term market." Opening Brief, PPC, B-PP-01, 21. This assumption is risky, and is contrary to BPA's goal of marketing its surplus firm power on a long-term basis. Selling power on a long-term basis would provide BPA with revenue stability benefits unavailable from a short-term sale. Opening Brief, PP&L, B-PL-01, 3. Furthermore, there is no current assurance that BPA will conclude long-term bilateral sales. It is appropriate to establish a number of surplus firm power marketing alternatives.

PPC claims that BPA can "make money" selling power in the short-term market by avoiding the "waiting game" or "water game" of PSW utilities. Opening Brief, PPC, B-PP-01, 22. However, PPC provides no practical suggestion for avoiding the waiting game. The advantage of PSW utilities is based on favorable water conditions in the PNW, "variations in natural gas prices, in the oil market, and in alternative economy energy potential purchases from ... competitors," none of which BPA can predict or control. Carr, BPA, TR 226.

Harm to Sales at the SP-85 Rate

PPC states that FD sales would affect the quality and quantity of power available for BPA to sell to other markets; specifically, that SP power will be "less ... available" and "more sporadic." Wolverton and Drummond, PPC, E-PP-01, 13. It is certainly true that an FD sale would reduce the amount of power available to sell at the SP-85 rate. It is also possible that an FD sale may reduce the market for SP sales. Even if this were true, however, the FD sale, in conjunction with SP sales, still would provide greater revenue benefits than would SP sales alone. Carr, BPA, E-BPA-02R, 2-4. If FD sales were to displace SP sales one-for-one, BPA's net revenues would increase. Id., 7. Because the FD product is different from the SP product, it is likely that FD sales can be made which do not displace SP sales. The SP and FD rate schedules should complement each other. Carr, BPA, E-BPA-02R, 5-6.

APAC states that "BPA needs to evaluate whether there is a risk" of the proposed FD rate interfering with "BPA's marketing efforts." Cook, APAC, E-PA-01, 12. APAC's context is its discussion of Matching Load Factor and Shape. Id., 32-38. This is discussed in section IV.B.

Benefit Studies

Certain parties allege that BPA did not analyze whether the FD rate would be beneficial to BPA, suggesting that more studies should have been performed. Opening Brief, APAC, B-PA-01, 5. However, the record shows that BPA did consider the benefits of the FD rate. For example, see Carr, BPA, TR 223. BPA's expert witness noted that while written analyses were not performed, many factors were considered, including the revenue differences in making short-term spot market sales, at either the SP or NF rates, compared to a long-term stable transaction like the FD rate. Carr, BPA, TR 223. To reach a conclusion that FD sales would produce benefits does not require a sophisticated modeling effort. Carr, BPA, TR 223. Much of the analysis is

self-evident. Id. For example, any long-term sale of BPA's surplus power at fully allocated cost would contribute to BPA's ability to meet its repayment obligations to the U.S. Treasury in a stable and timely manner. Carr, BPA, E-BPA-01, 4. Similarly, the impact of FD sales on BPA's revenues will be positive if any sales of FD power are made, since the FD rate is designed to recover BPA's costs over the term of the sale. See Issue #4. Even if no sales are made, there simply would be no FD revenues.

PP&L presented an analysis that demonstrates the long-term revenue benefit to BPA from FD sales. Hammerquist, PP&L, E-PL-02R and -03R. Based on a sale of 909 megawatts of capacity and up to 500 megawatts of firm energy, PP&L concluded that an FD rate can be expected to produce a present value benefit to BPA ranging between \$59.9 million and \$113.2 million. Hammerquist, PP&L, E-PL-02R, 2; TR 347. This study is reasonable and conservative in its assumptions. Id., 9. The study, while showing substantial revenue benefits, does not address yet another important benefit of an FD sale--revenue stability. Id. An FD sale would provide long-term revenue stability by assuring the sale of generation which is surplus to regional needs. Id.

PPC argues that the PP&L study should not be relied on because PP&L is a potential purchaser of FD power. Opening Brief, PPC, B-PP-01, 6-7. APAC also attacks the motives of PP&L in preparing the study, and attacks the qualifications of PP&L's witness. Opening Brief, APAC, B-PA-01, 6-7, note 1. Such criticisms lack merit. If the PPC/APAC argument were to be adopted, then all testimony of PPC and APAC on issues affecting BPA's PF rate in a general rate proceeding should be disregarded because PPC and APAC would benefit from a lower PF rate.

PPC and APAC also criticize the assumptions used in the PP&L study. Opening Brief, PPC, B-PP-02, 7, note 3; Opening Brief, APAC, B-PA-01, 7, note 1. APAC alleges that the PP&L study was result-driven. Opening Brief, APAC, B-PA-01, 6. The APAC citation does not support its argument. See TR 422-423. The PP&L witness stated that PP&L conducted two studies. While the initial study was not a written analysis, the PP&L witness concluded that "a long-term sale by a Northwest generating utility of displaced resources to the Southwest would command a higher price than a short-term sale, because such a long-term sale would allow deferral of new resource construction or resource refurbishment by the purchasing Southwest utility." Id. The PP&L witness then testified that the written analysis was conducted to quantify the benefit of FD. This does not mean that PP&L's written analysis was result-driven.

APAC also argues that PP&L erred in assuming that BPA's "SP rate analysis" and capacity forecasts were correct. Opening Brief, APAC, B-PA-01, 7. In the first instance, based on APAC's citation to the transcript, APAC is apparently referring to the projection of the SP and NR rates used by PP&L in its analysis of the benefits of the proposed FD rate. However, APAC has not provided a criticism of BPA's projected SP and NR rates. If APAC had wished to criticize BPA's projections, an opportunity to do so has existed within this proceeding. Absent criticisms directed at BPA's projections, the simple

statement that PP&L relied on BPA's work is not by itself significant. In the second instance, BPA's capacity study has been shown to be reasonable and conservative. See section IV.A.

APAC contends that PP&L inflated the benefits of FD sales by inflating the level of assumed sales by 40 percent. Opening Brief, APAC, B-PA-01, 7. PP&L stated in a data response that "assumed [FD] sales of at least 500 megawatts and 300 average megawatts or more ... would be reasonable" (emphasis added). Hammerquist, PP&L, TR 430. PP&L's study assumed FD sales of 909 megawatts and 500 average megawatts because BPA's capacity study indicated enough surplus to market this amount. Id., TR 415. This level of assumed sales is not inconsistent with PP&L's previous response. Further, PP&L's assumed sales represent only about 50 percent of the available capacity and energy. Carr, BPA, E-BPA-01, 4. Though some parties argue that BPA's forecast of available surplus power should be more conservative, PP&L's assumed FD sales are reasonable in the context of BPA's capacity projection.

APAC contends that potential FD benefits are further inflated because PP&L assumed some energy sales after the first 5 years. Opening Brief, APAC, B-PA-01, 7. PP&L defends this scaling back of energy sales, to 400 average megawatts in 1992 and zero in 1995, because "[i]t seems reasonable that [the energy] wouldn't all disappear in the same year." Hammerquist, PP&L, TR 432. This assumption is reasonable. A benefit of the proposed BPA-SCE contract (see Issue #3) would be that the contract allows for disposition of surplus energy after 5 years, clearly indicating that surplus energy may be available after 1991. Carr, BPA, TR 219.

Finally, APAC argues that PP&L's benefit analysis should be disregarded because assumed line losses were significantly inflated. Opening Brief, APAC, B-PA-01, 7. PP&L notes that estimates of potential benefits would be reduced if line losses of 4 percent were assumed rather than 5 percent, but such benefits still would be positive. Hammerquist, PP&L, TR 436.

PPC contends that PP&L's study concludes that FD and SP sales would produce equivalent revenues, even though the study improperly escalates the FD demand charge by the PF rate on the assumption that the PF rate will escalate at a faster rate than the NR rate. Opening Brief, PPC, B-PP-01, 6-7. It is not clear that PP&L improperly escalated the FD demand charge. However, if the demand charges had been equalized for the three alternatives (FD-priced, SP-priced, and Market-priced) such that there were no additional revenues accruing to FD capacity-only sales, the potential benefits of FD sales still would be significant. Hammerquist, PP&L, E-PL-02R, 3R-8, columns (C), (E) and (F).

Decision

The FD rate is proposed as an approach to marketing BPA's surplus firm power in addition to BPA's currently effective rate schedules. FD sales offer greater predictability than NF-85 or short-term SP-85 sales, would not be subject to the same regional preference recall provisions as an SP sale out of

the region, and may encourage additional and different long-term uses of BPA's surplus firm power. BPA may be able to conclude sales arrangements for surplus firm power with the FD rate that would not be possible with only the SP rate; thus, the two rate schedules should complement each other. Considerable evidence exists that the FD rate would yield benefits beyond those available with existing rates. Reliance on short-term markets has not proved adequate to recover BPA's revenue requirement.

BPA's existing rate schedules have not proven sufficient by themselves to support the marketing of all of BPA's surplus firm power at fully allocated cost. The addition of the FD-85 rate schedule offers prospective net benefits.

Issue #3

Does the proposed BPA bilateral sale to Southern California Edison demonstrate that the proposed FD rate is unnecessary?

Summary of Positions

PPC and Seattle argue that the proposed FD-85 rate schedule is unnecessary now that BPA has negotiated a proposed sale of surplus firm power to SCE. Opening Brief, PPC, B-PP-01, 20; Opening Brief, SCL, B-SL-01, 14-15. APAC also argues that the current SCE proposal rebuts BPA's argument that BPA has been unsuccessful in concluding bilateral agreements with Pacific Southwest purchasers. Opening Brief, APAC, B-PA-01, 7. PPC and Seattle also argue that the proposed SCE sale is more marketable and more financially beneficial than FD sales. Opening Brief, PPC, B-PP-01, 22-23; Opening Brief, SCL, B-SL-01, 16.

Evaluation of Positions

PPC, SCL, and APAC allege that the proposed bilateral sale between BPA and SCE constitutes a long-term surplus power marketing alternative to FD sales. Opening Brief, PPC, B-PP-01, 20; Opening Brief, SCL, B-SL-01, 15; Opening Brief, APAC, B-PA-01, 7. PPC, SCL, and APAC suggest that the existence of the SCE proposal demonstrates that FD sales are no longer necessary or prudent. Id. This argument is unconvincing. The record has clearly established that BPA has not been recovering its fully allocated costs from sales of surplus firm power. See issue #1, above. In addition, the benefits of selling surplus firm power at fully allocated cost on a long-term basis are evident from the record. Carr, BPA, E-BPA-01, 4; E-BPA-02R, 4-6; TR 178; Opening Brief, PP&L, B-PL-01, 1-3. While the proposed bilateral sale with SCE is a promising proposal, it is by no means final and would result in the sale of only a portion of BPA's surplus. Carr, BPA, TR 158. The fact that BPA is negotiating a possible sale is not a sufficient basis for abandoning other efforts to market BPA's surplus firm power at fully allocated cost on a long-term basis. The lack of any long-term bilateral contracts with Pacific Southwest customers save a single uncompleted proposal emphasizes the need for the FD rate.

PPC and SCL allege that the proposed SCE bilateral sale is more marketable and economically beneficial to BPA than potential sales at the FD rate. Opening Brief, PPC, B-PP-01, 20-21; Opening Brief, SCL, B-SL-01, 16. SCL cites TR 219 as demonstrating that the SCE proposal is more marketable than FD. However, this citation fails to support SCL's claim. BPA's witness testified that the SCE proposal would be more marketable than an FD sale only because there is limited rate certainty on FD energy and the SCE proposal has an escalator on the unit power cost for the total time that BPA has surplus firm energy available. Carr, BPA, TR 218-219. Since BPA now proposes to include this feature in the proposed FD rate, there is no basis for assuming that the FD rate is less marketable than the rate included in the SCE proposal. See section III.C.

Similarly, SCL's and PPC's allegation that the SCE bilateral sale is more economically beneficial to BPA than FD is not supported by the record. BPA's witness concluded that the SCE proposal would be a better deal for BPA, due to the "longer term energy escalators in the Edison agreement." Carr, BPA, TR 290. BPA has now adopted this feature in its FD proposal. See section III.C. See also TR 275.

PPC and SCL argue that a BPA analysis shows that a bilateral SP sale would provide higher revenues than an FD sale. Opening Brief, PPC, B-PP-01, 22-23; Opening Brief, SCL, B-SL-01, 16. This argument is misleading. The referenced study is a draft document, not a final study. Carr, BPA, TR 266. It has currently been circulated for comment of interested parties. Id. The study does not yet reflect consideration of whatever comments may be received from interested parties. Id. Furthermore, in the revenue comparison, the bilateral revenue stream assumed that all sales were made at the full SP rate. TR 267. This assumption did not take into account any marketing constraints that might restrain bilateral revenues below the full SP rate. Id. As discussed previously, in the recent past BPA has not recovered the full SP rate in bilateral SP transactions. Id., TR 269. Also, if it were assumed that BPA collected less than 97 percent of the full SP rate on average, the results of the study would show greater revenues from the FD sale. Id., TR 267. In summary, the cited study does not establish that SP sales are superior to FD sales.

Decision

The proposed BPA bilateral sale to SCE does not demonstrate that the FD rate is unnecessary. BPA can enhance its effort to market its surplus at fully allocated cost by pursuing sales both at the SP rate and at the FD rate.

Issue #4

Would the proposed FD rate enhance BPA's ability to repay the U.S. Treasury and to keep all rates low?

Summary of Positions

The proposed FD-85 rate schedule is designed to aid BPA in marketing its surplus firm power at fully allocated cost on a long-term basis. Carr, BPA, E-BPA-01, 4; E-BPA-02R, 2, 4-6. The result of marketing BPA's surplus firm power at fully allocated cost over the long term would be "to keep the other remaining Regional rates lower than they otherwise would have been." Carr, BPA, TR 178.

PGE agrees that rate stability or reduction would be "a major benefit" of the proposed FD rate. Kellerman, PGE, TR 333. PGE claims, however, that the proposed FD rate would increase the "volatility" of BPA's other rates. Opening Brief, PGE, B-GE-01, 8; Kellerman and McCullough, PGE, E-GE-01, 12-13.

PP&L describes "the most important benefit of an FD sale [as] revenue stability." Hammerquist, PP&L, E-PL-02R, 9-10.

APAC states that "[t]he proposed rate fails to protect BPA and its customers from revenue deficiencies from FD sales over the duration of the proposed rate period." Opening Brief, APAC, B-PA-01, 3. APAC contends that failure to set the demand charge as it recommends will, with naked capacity sales, produce "a revenue deficiency that will be allocated to other customers." Reply Brief, APAC, R-PA-01, 4. This argument is discussed in Chapter III. APAC also states that "BPA has not analyzed whether it will increase its overall sales and revenue by implementing this rate." Cook, APAC, E-PA-01, 11. APAC adds that BPA did not "perform analyses sufficient to allow the parties to evaluate the extent of potential harm arising as a result of this proposed long-term rate." Reply Brief, APAC, R-PA-01, 3. Finally, APAC alleges that "[BPA] was unable to supply ... information that could be used to quantify the potential harm." Id.

PPC claims that "the FD rate poses significant risks" to BPA's publicly owned utility customers, and that "the evidence shows that the FD rate poses a risk to BPA's ability to meet its revenue requirement and repayment obligations." Opening Brief, PPC, B-PP-01, 7. PPC also argues that "BPA must demonstrate that its ability to collect revenues sufficient to repay its obligations to the U.S. Treasury is not impaired by the implementation of this rate." Wolverton and Drummond, PPC, E-PP-01, 5. PPC states that BPA did not "take into account the far-term risks associated with the potential twenty-year term of the FD contract." Reply Brief, PPC, R-PP-01, 3.

SCL is concerned that BPA did not "perform an analysis of the potential risk of harm to BPA's Northwest customer[s]." Opening Brief, SCL, B-SL-01, 14. "It is Seattle's position that predictability of the FD rate should not cause volatility in BPA's other rates." Nelson, SCL, E-SL-01AR, 3.

Evaluation of Positions

PPC, APAC, and SCL argue that the FD rate could lead to revenue deficiencies that could impair BPA's ability to repay the U.S. Treasury. Opening Brief, PPC, B-PP-01, 7; Opening Brief, APAC, B-PA-01, 3; Opening Brief, SCL, B-SL-01, 14. The entire foregoing discussion of this chapter demonstrates how the FD rate will contribute positively to meeting the Administrator's obligations. In summary, the FD rate is designed to recover BPA's costs and to avoid revenue underrecoveries. The FD rate is based on BPA's 1985 Surplus Firm Power (SP-85) Contract rate, which is designed to recover the costs of BPA's surplus firm power. Carr, BPA, E-BPA-01, 7. No party alleged that the SP-85 rate would fail to recover BPA's costs. The parties therefore agree that the FD rate would recover BPA's costs in the near term; the parties' concerns lie with the ability of the FD rate to recover costs in the long term. In order to ensure that BPA would recover its costs in the long term, BPA proposed escalators to the original FD rate. Carr, BPA, E-BPA-01, 11-14. Two alternative escalators were proposed for FD energy: a variable factor based on the annual rate of increase in the cost of PNW investor-owned utilities' exchange resources; and a fixed escalation factor of 7.5 percent, based on the forecasted average rate of increase in BPA's New Resources rate plus a risk factor of 2.5 percent. Id., 11-12. The initial demand charge escalator was 5 percent, capped by a ceiling determined by the cumulative increase in the average PF rate at 55 percent load factor times the FD demand charge in effect when the FD contract first becomes effective. Id., 13. Expert testimony established that the escalation factors would "recover the cost of providing this [FD] service over time." Carr, BPA, E-BPA-01, 11. Based on the demonstrated need for long-term predictable energy and demand escalators, BPA proposed that a "PF+2" escalator should be established. The "PF+2" escalator is greater than the escalators initially proposed and ensures the recovery of BPA's costs with an additional risk premium. See section III.B. This escalator is the same escalator proposed for BPA's bilateral firm power sale to Southern California Edison Company. While not essential to this determination, it is notable that no PNW party in the section 7(i) proceeding for the SCE proposal alleged that the "PF+2" escalator would be inadequate to recover BPA's costs.

Furthermore, for BPA to incur a net cost, it is necessary to show that FD sales would displace other sales such that the additional expected revenues will not be realized. Carr, BPA, E-BPA-02R, 7-8. No evidence of such displacement has been presented. Id. See issue #2, above.

SCL's arguments regarding BPA's fixed and variable "revenue requirements" and "serious cost allocation problems" may be interpreted to mean that SCL is concerned that the FD rate could cause BPA's other rates to be inequitable or unpredictable. Nelson, SCL, E-SL-01A, 4-5. Both SCL and PGE claim that the predictability of the proposed FD rate would cause "volatility" in BPA's other rates. Nelson, SCL, E-SL-01AR, 3; Opening Brief, PGE, B-GE-01, 8; Kellerman and McCullough, PGE, E-GE-01, 12-13. These arguments are not well-founded. The FD rate schedule is designed to recover the fully allocated cost of BPA's surplus firm power. Such revenue recovery will assist in keeping BPA's other

rates as stable as possible. Also, since the escalation in the FD rate is based on the escalation in the PF rate, the FD rate will share in any PF rate increase. Thus, the potential for volatility in the PF rate caused by the FD rate is reduced, not increased.

Several features of the proposed FD rate schedule should contribute to the ability of BPA to meet its Treasury obligations and concomitantly to keep all rates as low as possible. First, the need for additional marketing tools is apparent: sales at the SP rate have generally failed to recover the fully allocated cost of surplus firm power. This problem is exacerbated when BPA is forced by market conditions to sell such power at nonfirm energy rates. It has been established that Firm Displacement power is a different product from Surplus Firm power, and the FD rate schedule should help BPA meet different markets than is possible by relying only on bilateral and short-term SP sales. Finally, no evidence has been presented that the FD rate will adversely affect SP sales, in which case net benefits are virtually guaranteed if FD sales are made. Bilateral arrangements such as the proposed contract with SCE may not be sufficient alone to meet BPA's goal of selling its surplus firm power at fully allocated cost.

PPC identifies three "far-term risks[:] . . . he resource acquisition or construction risk, the undercollection risk, and the short-term market risk." Reply Brief, PPC, R-PP-01, 3. PPC admits that BPA addressed the short-term market risk in the Draft ROD. *Id.* The resource-related risk is addressed in section IV.A. The revenue-related risk is addressed in both Chapters II and III.

Decision

The proposed FD rate will improve BPA's ability to sell its surplus firm power on a long-term basis at fully allocated cost. Such sales will enhance and stabilize BPA's ability to repay the U.S. Treasury and keep all rates low.

Chapter III

FEATURES OF PROPOSED FD-85 RATE SCHEDULE

A. Rate Level

Issue #1

Should the FD rate level be adjusted for Intertie losses?

Summary of Positions

BPA's initial proposal based the FD-85 rate calculation on the SP-85 rate. Carr, BPA, E-BPA-01, 7-9, Attachment 3.

PP&L states that BPA would receive greater revenue benefits from an FD sale than an SP sale. Opening Brief, PP&L, B-PL-01, 3-4. The additional benefits would arise because BPA would incur fewer Intertie transmission losses with an FD sale made to the PNW than it would with an SP sale made to the PSW. Id.

BPA recalculated the FD rate in the Draft ROD to account for the lower losses that BPA would incur from an FD sale compared to an SP sale. BPA, Draft ROD, A-01, 16.

No objections to adjusting the FD rate to account for Intertie losses were raised in reply briefs.

Evaluation of Positions

PP&L states that BPA would receive greater revenue benefits from an FD sale than an SP sale. Opening Brief, PP&L, B-PL-01, 3-4. The additional benefits would arise because BPA would suffer fewer transmission losses with an FD sale than with an SP sale. Id. PP&L demonstrates that the additional benefits could be significant over the contract term. Hammerquist, PP&L, E-PL-03R, Tables 3R-1 through 3R-8. PP&L's study indicates that, from a revenue standpoint, BPA should be indifferent between an extraregional sale at the SP rate, or an FD sale of comparable load factor at some lower rate.

Decision

The FD-85 rate is based on the SP-85 Surplus Firm Power rate, but is adjusted to account for the absence of Intertie losses that BPA would incur from an FD sale compared to an SP sale. The calculation of the FD-85 rate is shown in Appendix E.

Issue #2

How should the FD rate level be adjusted for Intertie losses?

Summary of Positions

BPA recalculates the SP-85 Contract rate to reflect delivery of SP power in the PNW. BPA, Draft ROD, A-01, Attachment. The recalculated rate is derived from demand and energy billing determinants that reflect network losses but not Intertie losses. *Id.* The recalculated SP demand and energy charges both are lower than the SP-85 charges, and the average rate at 55 percent load factor for the recalculated SP rate is 34.0 mills/kWh compared to 35.3 mills/kWh under SP-85. BPA, Draft ROD, A-01, Attachment; Cook, APAC, E-PA-01, 14.

APAC contends that "[a]ny adjustment to reflect lower losses on an FD sale should be made to the energy charge, not the demand charge. It is energy that BPA anticipates saving as a result of making FD deliveries in the Northwest as opposed to SP deliveries in the Southwest." Reply Brief, APAC, R-PA-01, 9.

Evaluation of Positions

APAC implicitly agrees that it is appropriate to adjust the FD rate downward to reflect the savings to BPA that would result from delivering FD power in the PNW compared to delivering SP power to the PSW. Reply Brief, APAC, R-PA-01, 9. APAC argues that the downward adjustment should be based only on the energy that could be saved from an FD transaction, rather than on both capacity and energy savings as BPA proposes. *Id.*; BPA, Draft ROD, A-01, Attachment. APAC's justification for its position is that an FD transaction would save energy but not capacity compared to a PSW SP transaction.

Contrary to APAC's claim, however, any delivery of FD power during peak period hours is a delivery of both capacity and energy. The draft FD contract principles state that the sale of FD power to a PNW purchaser "shall match on an hour-to-hour basis" the displaced PNW generation that is sold to the PSW. Carr, BPA, E-BPA-02RS, 3. Therefore, if the PNW-PSW transaction matches a peak period FD sale, both capacity and energy will be lost in Intertie transmission to the PSW purchaser. If the PNW-PSW transaction requires wheeling services from BPA, losses commonly are returned by the wheeling customer 7 days later and on the same hour as the original transaction. Thus, capacity and energy that is lost in wheeling a peak period PNW-PSW sale is returned as both capacity and energy. APAC's recommendation might be appropriate only if FD sales were anticipated to be made primarily during offpeak periods, which is not the case.

Decision

BPA would save both capacity and energy as a result of making peak period FD sales to the PNW compared to making peak period SP sales to the PSW. The

FD-85 rate level appropriately is adjusted downward to reflect savings on Intertie losses of both capacity and energy.

B. Demand Charge

Issue #1

How should the FD-85 demand charge be calculated?

Summary of Positions

The initially proposed FD-85 demand charge would vary with the quantity of energy purchased relative to capacity. Carr, BPA, E-BPA-01, 7. If an FD customer purchased only capacity, the rate would be \$70.80 per kilowattyear, which is identical to the SP-85 demand charge. Id., 7-8. The initially proposed FD rate for a power purchase would be \$56.76 per kilowattyear for contractual load factors that equal or exceed 55 percent. Id., 8. A load factor credit would reduce the demand charge by \$0.255 per kilowattyear for each 1 percent increase in load factor up through 55 percent. Id., 8. The initially proposed FD-85 demand charge was set such that the unit rate for FD power at 100 percent load factor would be identical to the SP-85 Contract rate at the same load factor. Id., Attachment 3.

In the Draft ROD, BPA recalculated the demand charge such that the unit rate for FD power at 55 percent load factor was equal to an adjusted unit SP-85 Contract rate at the same load factor. BPA, Draft ROD, A-01, Attachment. The adjusted SP-85 rate is discussed in the previous section. BPA also eliminated the load factor credit. Id., 17.

SCL argues that "[r]emoval of the load factor credit and recalculation of the FD rate at 55 percent load factor results in reducing the price charged for FD power at all load factors less than 55 percent ... [and] results in a \$1.16 per kilowatt-month reduction in the naked capacity rate ... [that] is patently unacceptable." Reply Brief, SCL, R-SL-01, 12.

Evaluation of Positions

SCL argues that elimination of the load factor credit reduces the cost of FD power at load factors less than 55 percent compared to the initially proposed FD rate. Reply Brief, SCL, R-SL-01, 12. The apparent intent of SCL's argument is that low load factor purchasers of FD power should pay higher average rates than high load factor purchasers. SCL contends that "BPA provides no factual evidence supporting its conclusion that the original load factor credit is unnecessary." Id., 11. As BPA notes in the Draft ROD, a rate schedule with demand and energy charge components in itself encourages higher load factors, in that the average rate falls with higher load factor purchases. BPA, Draft ROD, A-01, 17. However, there would be an additional disincentive to purchase low load factor FD power if the load factor credit were reinstated as SCL appears to recommend. Reply Brief, SCL, R-SL-01, 11-12. Appendix F, Column (D), shows the average FD rate at various load

factors based on the Draft ROD rates, incorporating a load factor credit. The load factor credit increases the average FD rate for all load factors less than 55 percent compared to the Draft ROD proposal.

SCL argues that calculation of the FD rate at 55 percent load factor, rather than at 100 percent load factor as was initially proposed, reduces the price of FD power at all load factors less than 55 percent. Id., 12. SCL's argument is incorrect. Calculation of the rate at 55 percent load factor actually increases the average FD rate at all load factors.

SCL also argues that BPA's proposed \$4.74 demand charge is unacceptable because it "results in a \$1.16 per kilowattmonth reduction in the naked capacity rate" compared to the initially proposed demand charge. Reply Brief, SCL, R-SL-01, 12. While an FD demand charge of \$4.74 and an energy charge of 22.2 mills would recover the cost of an FD power sale, such a demand charge would not recover the cost of providing FD naked capacity. The cost of FD capacity is \$5.69 per kilowattmonth (see Appendix E). BPA, Draft ROD, A-01, Attachment. Setting the initial demand charge for naked capacity at \$5.69 per kilowattmonth for firm capacity purchases is consistent with the initially proposed FD demand charge and addresses SCL's contention that the demand charge is unacceptably low. Reply Brief, SCL, R-SL-01, 12.

Decision

The FD-85 demand charge is based on the SP-85 Contract rate demand and energy charges, adjusted to account for reduced Intertie losses that BPA would incur from an FD sale compared to an SP sale. The FD demand charge is calculated such that the average FD rate at 55 percent load factor would be equal to the average rate for a comparable SP sale if the SP rates had been adjusted for Intertie losses. The FD demand charge for a firm naked capacity purchase is equal to the adjusted SP-85 demand charge. A load factor credit is retained to encourage purchases of FD-85 power at high load factors, and to ensure that if a sale reverts to naked capacity the rate will include the full cost of surplus capacity. The load factor credit would reduce the demand charge by \$0.207 per kilowattyear for each one percent increase in load factor up through 55 percent.

Issue #2

Should the FD-85 demand charge include all BPA fixed costs when the FD sale shifts from a power sale to a capacity sale?

Summary of Positions

APAC argues that after 5 years, when FD sales could convert to sales of naked capacity if energy were not available, the demand charge should be based on the "full per-unit cost," or fixed cost, of BPA's capacity. Reply Brief, APAC, R-PA-01, 4, 7; Opening Brief, APAC, B-PA-01, 15-18; Cook, APAC, E-PA-01, 15, Attachment HC-3. This charge, which APAC calculates as \$9.55 per

kilowattmonth, could be adjusted to follow market conditions. Opening Brief, APAC, B-PA-01, 17-18; Cook, APAC, E-PA-01, 15, 18.

PP&L disagrees with APAC's recommendation. Hammerquist, PP&L, E-PL-02R, 11. PP&L notes that APAC's recommendation would result in a demand charge subject to change every 5 years at BPA's discretion, thus imposing excessive risk on an FD purchaser. Id.

Design of the FD rate is based on the same classification principles used since 1979 for all of BPA's power rates. Carr, BPA, E-BPA-02R, 10.

Evaluation of Positions

APAC contends that the FD demand charge initially proposed by BPA would underprice sales of naked capacity. Reply Brief, APAC, R-PA-01, 4; Opening Brief, APAC, B-PA-01, 15-18. APAC notes that the SP-85 demand charge, which is the basis for the FD demand charge, is derived from BPA's long-run incremental cost (LRIC) classification studies. Id., 16. In the past, APAC has opposed cost classification based on LRIC for developing power rates, because, APAC argues, the procedure results in an energy-intensive rate design. Id. APAC admits that it is possible that energy-intensive rates might not be harmful to BPA's overall cost recovery if both capacity and energy are being sold, but APAC states that LRIC should not be used to develop a capacity-only rate. Id., 16-17.

APAC admits that the demand charge escalator proposed by BPA in the Draft ROD may lead to a higher demand charge at the time that an FD power sale converts to a naked capacity sale than would have occurred under BPA's initial proposal. APAC contends that "[i]t still will be insufficient, however, to recover BPA's cost of providing capacity." Reply Brief, APAC, R-PA-01, 7.

Since 1979 BPA has divided costs between capacity and energy based on the marginal cost of meeting load. Carr, BPA, E-BPA-02R, 10. This approach is designed to encourage economic efficiency. Id. APAC recommends a fixed-variable approach to cost classification. Rates resulting from this approach would not incorporate the goal of economic efficiency. Id. Further, APAC's proposal would result in a dramatic escalation in the demand charge at the time that BPA enters load/resource balance. APAC has presented no basis for the argument that FD customers should be singled out for a possibly substantial increase in their demand charge at that time, especially when other customers presumably would be paying demand charges based on a different classification approach. APAC's proposal would result in a set of extremely inconsistent rates. Such a result would be contrary to BPA's general rate design goals.

APAC observes that an FD demand charge based on fixed costs might be too high to be attractive. Opening Brief, APAC, B-PA-01, 17-18; Cook, APAC, E-PA-01, 18, Attachment HC-4. If it is necessary to respond to the market, "[t]he rate can be set so that it will follow the market. Mr. Cook [APAC's witness] has provided a methodology for determining a market rate." Id., 18.

APAC does not, however, provide a practical and easily implemented rate methodology. Instead, APAC recommends that the marketability of the FD demand charge could be compared to the cost to PSW utilities of obtaining substitutes for BPA capacity. Cook, APAC, E-PA-01, 17. This recommendation ignores the fact that California utilities in the past have not provided BPA with decremental cost information that would be necessary to conduct the kind of market analysis that APAC recommends. Carr, BPA, TR 227. In addition, even if a useful market analysis were possible in the absence of reliable decremental cost information, APAC does not explain how such a market analysis would be used to establish a new demand charge. Finally, APAC's proposal would impose unnecessary uncertainty on purchasers of FD power. Demand charges could be subject to an unspecified number of market-determined rate adjustments. APAC's proposal for a market-responsive demand charge is unclear, impractical, and would adversely affect the marketability of FD power. Hammerquist, PP&L, E-PL-02R, 11.

Decision

The FD demand charge is not designed to include all BPA fixed costs. As explained later in this chapter, the FD rate schedule will not automatically shift to naked capacity sales at a specific predetermined date. Rather, escalators will be applied to the base charges for both demand and energy. The load factor credit will increase the demand charge when the sale shifts to naked capacity. The classification of the FD rate will remain consistent with BPA's other rates in promoting the goal of economic efficiency.

Issue #3

Should a demand charge escalator be established?

Summary of Positions

The initially proposed demand charge would be escalated from its initial level after 1987 using factors specified in the rate schedule. Carr, BPA, E-BPA-01, 11, 13-14. The escalator is intended to provide price certainty to an FD purchaser, while giving BPA reasonable assurance of recovering the cost of service. *Id.*, 11. A demand charge escalator is retained in BPA's Draft ROD. BPA, Draft ROD, A-01, 20.

PPC argues that the proposed escalator imposes risks on BPA's customers that the proposed FD sales will not recover actual cost. Opening Brief, PPC, B-PP-01, 15.

APAC and SCL express concerns similar to PPC but do not specifically address the demand charge escalator. Opening Brief, APAC, B-PA-01, 3; Nelson, SCL, E-SL-01AR, 3. These arguments are addressed more fully in Chapter II.

Evaluation of Positions

PPC argues that a demand charge escalator would increase BPA's risk of not recovering costs. Opening Brief, PPC, B-PP-01, 15. PPC points to recent

evidence of surplus firm power marketability, e.g., a contract between PGE and SDG&E, that is "more than enough to justify either removal of lids and ceiling of any kind (or use of the SP rate for these sales)." Wolverton and Drummond, PPC, E-PP-02R, 5-7. The contract cited by PPC is unconvincing for the proposition that the demand charge escalator is unnecessary. Wolverton and Drummond, PPC, E-PP-02R, Attachment 2. The cited contract refers to a sale that is not comparable to a potential FD sale. For example, the cited contract provides for a firm system sale of capacity and energy to SDG&E for 3 years, followed by a 25-year sale of firm power from the Boardman generating facility. Id. The contract also does not contain recall provisions similar to those proposed for FD sales. Further, rate lids and ceilings are unnecessary in the PGE-SDG&E contract because the rates are based on the costs of a specific resource. The existence of the PGE-SDG&E contract does not demonstrate that "lids and ceiling" are unnecessary.

There always is a risk that actual costs may exceed a calculated rate. This risk is addressed by establishing appropriate rate escalators. Expert testimony has established that a demand charge escalator reasonably assures BPA of recovering the cost of the FD power over time. Carr, BPA, E-BPA-01, 11. In addition, the rate assurance that would be available under the proposed FD rate schedule would benefit BPA's customers by assuring BPA's revenue recovery, and would tend to keep BPA's other rates lower than if FD sales were not made. Carr, BPA, TR 178; Kellerman, PGE, TR 332-333.

Decision

A demand charge escalator is included in the FD-85 rate schedule in order to provide rate predictability to potential FD purchasers and to reasonably assure revenue recovery over time to BPA.

Issue #4

How should the demand charge escalator and/or ceiling be established?

Summary of Positions

The initially proposed demand charge would escalate at 5 percent per year through 1991. Carr, BPA, E-BPA-01, 13; E-BPA-02R, 12. The escalator was based on the forecasted New Resources rate. Carr, BPA, E-BPA-01, 12-13. After 1991, a new escalation factor would be recalculated in a section 7(i) rate proceeding. Id., 13. Regardless of the escalation factor, however, the calculated rate after 1991 would not exceed the cumulative increase in the average PF rate at 55 percent load factor times the FD demand charge that was in effect when the FD contract was first signed. Id., 13; E-BPA-02R, 12.

APAC recommends that the demand charge be adjusted every 5 years with escalators "similar to those proposed by BPA" applied during the 5 year periods. Opening Brief, APAC, B-PA-01, 19.

PP&L argues that the appropriate escalator for the FD demand charge is the PF rate, but capped by the fully allocated cost of the NR rate. Opening Brief, PP&L, B-PL-01, 6-7.

BPA proposed in the Draft ROD to base the demand charge escalation factor on the cumulative increase in the PF rate at 55 percent load factor multiplied by a factor of 1.02 compounded annually ("PF+2"). BPA, Draft ROD, A-01, 21. As BPA proposed that this escalator would be in effect for the entire rate period, the demand charge ceiling in the initial proposal would be eliminated. Id.

In its reply brief, PP&L reaffirms its position that rate components resulting from a PF-based escalator "should not exceed the fully allocated cost of NR capacity and energy." Reply Brief, PP&L, E-PL-04, 2.

SCL "agrees that both the energy and demand charges should be accompanied by specific formula escalators in the rate schedule." Reply Brief, SCL, R-SL-01, 13. SCL contends, however, that "[n]o justification is presented to support selection of this particular escalator in the FD Draft ROD, nor is any explanation provided as to precisely how the escalators would be applied to the multi-component FD rate." Reply Brief, SCL, R-SL-01, 13-14. SCL argues that the FD demand and energy components should be escalated separately by the increase in the demand and energy components of the PF rate, respectively. Id., 14-15. Finally, SCL argues that BPA has not demonstrated satisfactorily that the escalation factors will recover the costs of surplus firm power over time. Id., 15-16.

Evaluation of Positions

APAC argues that the demand charge should be adjusted every 5 years with escalators "similar to those proposed by BPA" during the 5 year periods between adjustments. Opening Brief, APAC, B-PA-01, 19. It is unclear whether APAC intends "similar" escalators to refer to the actual 5 percent escalator proposed by BPA for the first 5 years, or instead to refer to the basis for the proposed escalator, which is the forecasted rate of increase in the New Resources rate. Carr, BPA, E-BPA-01, 12-13. However, APAC's proposal to recalculate escalators every 5 years would make the rate unpredictable and thus less attractive to a purchaser. Hammerquist, PP&L, E-PL-02R, 11.

The "PF+2" escalation factor proposed in the Draft ROD is based on a current bilateral proposal between BPA and Southern California Edison, which was introduced during cross-examination. PPC, E-PP-03. The proposed SCE rate has certain features that appear more marketable than the initially proposed FD rate. Carr, BPA, TR 219-220, 290. One such feature is a formula escalator that would apply to demand and energy charges over the entire term of the contract. Id. The proposed escalator is based on the cumulative increase in the average PF rate at 53.57 percent load factor multiplied by a factor of 1.02 compounded annually ("PF+2"). PPC, E-PP-03. The proposed BPA-SCE contract escalator also would provide an additional risk premium to BPA

compared to the initially proposed FD demand charge escalator, which would be constrained by the demand charge ceiling. Carr, BPA, TR 219-220.

PP&L argues that the appropriate escalator for the FD demand charge is the PF rate, but capped by the fully allocated cost of the NR rate. Reply Brief, PP&L, E-PL-04, 1-5; Opening Brief, PP&L, B-PL-01, 6-7. Without an escalator capped by the NR rate, PP&L hypothesizes the possibility of an unreasonably high future FD rate. PP&L provides the example of a PF rate increase of 100 percent from 20 to 40 mills and an NR rate increase of 50 percent from 40 to 60 mills. Opening Brief, PP&L, B-PL-01, 6-7. Thus, an FD rate of 40 mills escalated at the PF rate increase would be 80 mills per kilowatthour. Id.

BPA rejected PP&L's argument in the Draft ROD (BPA, Draft ROD, A-01, 20-21):

PP&L fails to demonstrate, however, that its hypothetical is a practical concern. Further, it is not reasonable to grant rate protection both ways as PP&L proposes; that is, that the FD rate should escalate at the lesser of the PF or NR rate of increase. The PF rate is projected to be BPA's most stable rate. Carr, BPA, TR 177. A demand charge escalator tied to the PF rate therefore would provide purchasers of FD power significant rate predictability over the long term. Carr, BPA, E-BPA-01, 13-4; E-BPA-02R, 10-11. Finally, PP&L has provided no justification for the argument that the NR rate is a good measure of the reasonableness of the FD rate. The rates clearly have different purposes.

PP&L contends that BPA's arguments are best refuted by the BPA-SCE proposed contract principles. Reply Brief, PP&L, E-PL-04, 2. PP&L argues that "in the SCE contract principles, Bonneville recognizes that under its price escalation rate formula unacceptable rate risks remain . . . [so] Bonneville proposes to provide SCE with three separate backup rate protections Without backup rate protection, the FD rate, as proposed in the draft ROD, would be clearly inferior to the SCE rate from the perspective of the purchasing utility." Id., 2-3. Therefore, PP&L argues, its request for backup rate protection is not unreasonable as BPA claims. Id., 4.

PP&L further alleges that the likelihood that FD rates would exceed NR rates is supported by rate projections developed by BPA as part of the BPA-SCE negotiations. Id., 3-4. Finally, PP&L alleges that "[t]he NR rate is appropriate as a basis for backup FD rate protection [because such] rates represent the highest charges Bonneville normally could expect to impose for surplus power. Such a backup rate cap thus would be fully cost-based." Id., 4 (emphasis in original).

PP&L's argument that the FD rate schedule is inferior to the proposed BPA-SCE contract is misplaced. Given the differences between the two

marketing tools, it is not apparent that backup rate protection should be identical. The BPA-SCE contract would be a bilateral transaction subject to capacity and energy callback provisions consistent with the Regional Preference Act (P.L. 88-552). Generally, as discussed in section IV.I., the PSW purchaser in the FD/PNW-PSW transaction does not face similarly restrictive callback provisions. A purchase of power by a PSW utility from a PNW utility potentially is more attractive than would be a direct purchase from BPA. Carr, BPA, E-BPA-01, 6. PP&L fails to demonstrate that backup rate protection is needed in addition to the potential marketing advantages that already would be part of the FD/PNW-PSW package. Further, the FD-85 rate does not preclude contract negotiations for backup rate protection similar to the proposed BPA-SCE contract.

PP&L observes that FD rates may exceed NR-based rates over the contract term, and that such an outcome "could be financially disastrous." Reply Brief, PP&L, E-PL-04, 4. This argument is not persuasive. The "PF+2" formula escalator provides a measure of rate certainty over the long term. PP&L argues in favor of such rate predictability and against the alternative, which would subject the FD rate to periodic adjustments in a section 7(i) rate hearing. Hammerquist, PP&L, E-PL-02R, 11-12. The "PF+2" escalator should be sufficiently predictable that PP&L, and any other potential FD purchaser, will be able to make an informed decision as to whether FD is an attractive purchase alternative. Hammerquist, PP&L, TR 353. Though long-term decisions of this nature necessarily involve risk, the likelihood of making a "financially disastrous" decision to purchase FD power (or, conversely, not to purchase) is reduced by the formula escalator.

PP&L observes that BPA could not normally expect to receive a higher price for surplus firm power than the NR rate. Reply Brief, PP&L, E-PL-04, 4. PP&L's observation may or may not be correct with respect to short term sales of surplus firm power, and depends on the rate pool treatment of the surplus. For a long-term sale, BPA assumes risk in offering a formula escalator, rather than periodically adjusting the FD rate in a section 7(i) process. The "PF+2" escalation factor provides BPA a premium for this risk. Carr, BPA, TR 219-220.

SCL contends that BPA fails to justify selection of the "PF+2" escalation factor. Reply Brief, SCL, R-SL-01, 13-14. Demand and energy charge escalation factors initially were proposed as necessary to provide rate predictability to PNW utilities and give BPA reasonable assurance of cost recovery. Carr, BPA, E-BPA-01, 11. However, the initially proposed energy charge escalator provided rate predictability only for the first 5 years of an FD sale, whereas the demand charge escalator and ceiling would apply for the FD contract term. Carr, BPA, E-BPA-01, Attachment 1, 2-4. A long-term energy rate escalator would enhance the attractiveness of FD power. Opening Brief, PP&L, B-PL-01, 4-6. Escalation factors based on the PF rate satisfy the objective of rate predictability because the PF rate is expected to be BPA's most stable rate. Carr, BPA, E-BPA-01, 13; TR 177-178. The proposed BPA-SCE rate, which was introduced during cross-examination, has a "PF+2" formula escalator that would apply to demand and energy charges over the term of the BPA-SCE contract. PPC, E-PP-03. The proposed BPA-SCE rate with the "PF+2"

escalator is characterized as better packaged than the initially proposed FD rate. Carr, BPA, TR 290. In addition, the risk of cost underrecovery over time associated with a fixed escalator should be reduced by the additional 2 percent per year premium over the projected PF rate increase. BPA, Draft ROD, A-01, 23. Finally, Seattle itself contends that the proposed BPA-SCE contract is evidence that the FD rate is unnecessary. Opening Brief, SCL, B-SL-01, 14-15. This support for the proposed contract implies support for the "PF+2" escalator.

SCL argues that BPA has not demonstrated that the formula escalator will recover the cost of surplus firm power over time. Reply Brief, SCL, R-SL-01, 15-16. This is incorrect. Expert testimony established that the initially proposed escalation factors would give reasonable assurance that the cost of BPA's surplus firm power would be recovered over time. Carr, BPA, E-BPA-01, 11. The increase in the PF rate is an appropriate basis for the escalation factor. Opening Brief, PP&L, B-PL-01, 6. The "PF+2" escalation factor provides additional protection compared to the initial proposal, which capped the demand charge at the PF rate increase. The additional protection is demonstrated by Appendix G, which compares the forecasted rates for surplus firm power at 55 percent load factor to forecasted FD-85 rates at the same load factor. The issue of cost recovery also is addressed in Chapter II.

SCL argues that application of the escalators (and other rate schedule features) would have been more clearly specified if BPA had included a revised FD-85 rate schedule in the Draft ROD. Reply Brief, SCL, R-SL-01, 16. SCL contends that BPA fails to explain adequately "how the escalators would be applied to the multi-component FD rate." Id., 13-14. BPA does not normally publish rate schedules in rate hearing draft decision documents. However, BPA included information in the Draft ROD regarding calculation of the FD rate. See, e.g., Draft ROD, Attachment. Also, the escalators were described in some detail in the record. See, e.g., PPC, E-PP-03. Finally, it is apparent that the Draft ROD explained the application of the formula escalator with sufficient clarity that SCL was able to interpret, and object to, such application. BPA, Draft ROD, A-01, 20-23.

SCL argues that the FD demand and energy components should be escalated separately by the demand and energy components of the PF rate. Reply Brief, SCL, R-SL-01, 14-15. Separate escalation of rate components, SCL contends, appropriately would reflect nonuniform change in the PF capacity and energy rates. Id., 14-15. This argument is similar to a PPC argument that "the components of the rates should not be fixed unalterably for the term of the contract," but should reflect changes in cost incurrence. Wolverton and Drummond, PPC, E-PP-01, 19. The PPC argument is discussed in section III.D. SCL apparently is concerned, as is PPC, that changes in cost incurrence that are not reflected in rate component changes could lead to an underrecovery of costs allocated to the FD rate. For example, an underrecovery could result if a utility is purchasing naked capacity and BPA's rates were to become more capacity-intensive. However, this situation is unlikely to occur. First, BPA's cost classification reflects the costs of future resources. Second, naked capacity sales are more likely to occur when BPA has surplus capacity

but is in balance for energy, in which case capacity costs likely would escalate less rapidly than energy costs. SCL admits that "it seems reasonable to assume that energy costs will remain costlier than capacity costs." Reply Brief, SCL, R-SL-01, 15. In addition, separately escalating the FD rate components as SCL proposes could make the level of the FD demand and energy charges less predictable and thereby adversely affect the objective of rate certainty. Carr, BPA, E-BPA-01, 11. This would be true especially for a firm naked capacity sale whereby a change in the classification of the PF rate could have a major effect on the level and marketability of the demand charge.

Decision

The demand charge escalation factor is based on the cumulative increase in the PF rate at 55 percent load factor multiplied by a factor of 1.02 compounded annually. Basing the escalation factor on the PF rate will provide the rate certainty needed by the purchasers to sign long-term contracts. The PF-based escalation factor allows increases in BPA's costs to be recovered from FD customers. The "PF+2" escalation factor provides an additional risk premium to BPA compared to the originally proposed FD demand charge escalator and ceiling. As this formula escalator would be in effect for the entire rate period, a demand charge ceiling is unnecessary and also would impose undue risk on BPA.

C. Energy Charge

Issue

Should the energy charge be made as predictable as the demand charge?

Summary of Positions

The proposed energy charge (22.2 mills/kWh) and energy charge escalation factor (7.5 percent yearly or the annual increase in the cost of IOU exchange resources) would apply for the first 5 years of the FD contract. Carr, BPA, E-BPA-01, 11-12. If surplus firm energy is projected to be available after 5 years, the energy charge would be set in a section 7(i) rate hearing several years prior to the year the energy is projected to be available. Carr, BPA, E-BPA-02R, 16-17.

PP&L argues that there is a need for both the FD energy and demand charges to be predictable. Opening Brief, PP&L, B-PL-01, 5. PP&L argues that a long-term fixed energy escalator with take-or-pay provisions should be established. Id., 6. PP&L argues that the appropriate escalator for the FD energy charge is the PF rate, but capped by the fully allocated cost of the NR rate. Reply Brief, PP&L, E-PL-04, 1-5; Opening Brief, PP&L, B-PL-01, 6-7. PP&L also argues that the demand charge escalator should be capped by the NR rate. Id. This position is discussed in section III.B. and, due to the similarity of the issues, will not be repeated here.

Sacramento Municipal Utility District (SMUD) argues that "a rate cap or rate methodology to be included in the contract for energy to be sold after 1991 . . . [could be] based on other BPA rates." SMUD, participant letter W-02. SMUD argues that such a rate cap or methodology would help a prospective purchaser of FD power to evaluate alternatives and forecast the rate. Id.

APAC argues that the energy charge escalator should be tied "to the actual increase in BPA's other rates, rather than a forecast percentage . . . [and the energy charge] should not be insulated from the allocation of cost increases that would be applied to other 7(f) rates." Opening Brief, APAC, B-PA-01, 20.

PPC objects to PP&L's proposed long-term energy escalator because, PPC contends, it would increase the risk that FD revenues would not recover costs in the long term. Opening Brief, PPC, B-PP-01, 16.

BPA proposed in the Draft ROD to apply a formula escalator to the FD energy charge over the term of an FD contract. BPA, Draft ROD, A-01, 23. The energy charge escalator, which is identical to the demand charge escalator, is based on the cumulative increase in the average PF rate at 55 percent load factor multiplied by a factor of 1.02 compounded annually. Id.

SCL expresses several objections to both the energy and demand charge escalators that BPA proposed in the Draft ROD. Reply Brief, SCL, R-SL-01, 13-16. SCL's arguments, which apply equally to the energy and demand charges, are addressed in the previous section.

Evaluation of Positions

PP&L contends that because the originally proposed energy charge would be uncertain after 5 years, a potential purchaser could commit only to an energy purchase for 5 years even though BPA's energy surplus could extend beyond this period. Hammerquist, PP&L, E-PL-01 (Rev.), 5-6. Thus, a long-term energy escalator would be attractive to a potential FD purchaser. A fixed energy rate escalator, coupled with a take-or-pay provision, also would be of great value to BPA. Carr, BPA, TR 290. The additional rate certainty provided by a fixed escalator over the contract term would make FD power more marketable than would the initially proposed FD rate schedule. Id., 219. In addition, a fixed escalator with take-or-pay provisions would allow for the assured disposition of BPA's energy surplus beyond 5 years. Id.

APAC proposes that any escalation factor should be based on actual cost increases to BPA's other rates as well as costs applied to other 7(f) rates. Opening Brief, APAC, B-PA-01, 20. It appears that APAC's general argument is that the FD energy charge should not be insulated from any actual costs over the FD contract term. It is apparent that what APAC proposes is not an energy charge escalator, but rather a notion that the energy charge should be based on constantly changing actual costs. APAC's proposal is vague and unhelpful; it does not, for example, address the implications of "tying the escalation to

the actual increase" (Id.) in the new resource rate pool, which, because the pool is small, is expected to be less predictable than other rate pools. APAC's proposal is inconsistent with the objectives for establishing an escalator--providing price certainty to an FD purchaser while giving BPA reasonable assurance of recovering the cost of service. Carr, BPA, E-BPA-01, 11.

PPC contends that the stability and predictability built into the FD rate schedule through features such as escalators would be at the expense of BPA's other customers. Id., 15. However, rate escalators reasonably assure BPA of recovering the cost of FD power over time. Carr, BPA, E-BPA-01, 11. Further, the rate assurance provided by fixed escalators available in the proposed FD rate schedule would benefit BPA's customers by enhancing BPA's revenue recovery, and thus would tend to keep BPA's other rates lower than if FD sales were not made. Id., TR 178.

PPC argues that a fixed energy escalator over the term of an FD contract would increase the risk of revenue underrecovery. Opening Brief, PPC, B-PP-01, 16. However, the "PF+2" escalation factor fixes only the escalation formula; the actual escalation is not fixed, but is instead tied to the costs of BPA's largest and most stable rate pool. There is, of course, always some risk of cost underrecovery over time associated with any escalator. Carr, BPA, TR 278. Such risk is reduced with higher escalators. An energy escalator based on the cumulative increase in the average PF rate at 55 percent load factor multiplied by a factor of 1.02 annually would provide a 2 percent per year premium over the projected PF rate increase. Since the PF rate is projected to be BPA's most stable rate (Carr, BPA, E-BPA-01, 13), and is quite close to BPA's average system cost, the additional 2 percent premium is a reasonable protection against risk. Similarly, a "PF+2" energy escalator should assure disposition of BPA's energy surplus after 5 years, and do so at a favorable rate.

Decision

A formula escalator will apply to the FD energy charge over the term of an FD contract. A formula escalator will allow for the assured disposition of BPA's surplus energy beyond 5 years. The escalator, which is identical to the proposed demand charge escalator, is based on the cumulative increase in the average PF rate at 55 percent load factor multiplied by a factor of 1.02 compounded annually, times the energy charge in effect when the FD contract first is negotiated.

D. Cost Basis

Issue #1

Should the proposed FD-85 rate be based on the cost of firm power from only existing resources currently available to BPA?

Summary of Positions

The initially proposed FD-85 rate was based on the SP-85 Surplus Firm Power rate. Carr, BPA, E-BPA-01, 7-8. The FD rate escalators were based on the projected increase in the New Resources rate. Id., 11-13. BPA initially proposed that the FD-85 rate schedule would be effective for 5 years from the date it is implemented. After 5 years, the demand charge and the escalator would be determined in a section 7(i) hearing. The escalated demand charge would be constrained by a ceiling determined by the rate of increase of the PF rate at 55 percent load factor. Carr, BPA, E-BPA-01, 13. If surplus firm energy is projected to be available after 5 years, the energy charge would be set in a general section 7(i) rate hearing several years prior to the year the energy is projected to be available. Carr, BPA, E-BPA-02R, 16-17.

PP&L states that "[t]he proposed FD rate should be based on the cost of firm power from existing resources currently available to Bonneville and ... must not be based on the cost of firm power from resources acquired in the future." Hammerquist, PP&L, E-PL-01 (Rev.), 3 (emphasis in original); E-PL-02R, 13; TR 405, 426-427.

APAC disagrees in rebuttal testimony with PP&L's recommendation. APAC claims that it is impossible to identify one or more resources as surplus, due to the coordinated operation of the BPA hydro-thermal system. APAC states that PP&L's proposal does not "reflect the actual future operation of the Federal system." Cook, APAC, E-PA-02R, 4. In its opening brief, however, APAC echoes PP&L's concern: "The FD rate is designed to sell surplus power. It is based on BPA's calculation of the current cost of providing the power. No new or additional costs should be incurred to serve this FD load." Opening Brief, APAC, B-PA-01, 21.

PPC states that BPA cannot assure that the FD rate will recover the cost of FD power over the term of the contract. Reply Brief, PPC, R-PP-01, 6-7. Specifically, PPC claims that the regional ratepayers will be subjected to the risk of "rates higher than otherwise necessary to pay for capacity purchased to ensure deliveries to an FD rate purchaser." Id., 6.

Evaluation of Positions

Even though PP&L and APAC make virtually identical statements on the record, their viewpoints apparently differ. PP&L, as a potential purchaser of power sold under the proposed FD rate, desires rate predictability; therefore, PP&L proposes that the FD rate should be based for the long term on the cost of only existing resources. Hammerquist, PP&L, E-PL-01 (Rev.), 5-6. PP&L claims that it cannot accept the risk that changes in the FD rate could make PNW-PSW sales unmarketable in the future. Id., 6-7. APAC, on the other hand, is concerned about the potential effect of the costs of new resources on the rates of BPA's other customers. Cook, APAC, E-PA-02R, 1, 5. APAC opposes BPA acquiring new resources to serve FD loads. Cook, APAC, E-PA-01, 6; E-PA-02R, 1; Opening Brief, APAC, B-PA-01, 21.

The FD-85 rate schedule is proposed as a means of marketing BPA's surplus firm power. Carr, BPA, E-BPA-01, 3; E-BPA-02R, 6. BPA does not intend to acquire resources solely to serve FD loads. Carr, BPA, E-BPA-02R, 6; TR 208. As a practical matter, however, BPA may have to acquire resources in the future to meet the contractual requirements of its firm power customers or to satisfy statutory requirements. The composition of the surplus firm power sold under the FD rate thus may change. As APAC points out, BPA's other customers should be protected in the long run by not completely insulating the FD rate from changes in BPA's costs. Cook, APAC, E-PA-02R, 5. The demand and energy charge escalator is now proposed to be set at the rate of increase of the average PF rate multiplied by a factor of 1.02 compounded annually. See sections B and C. The 2 percent premium allows for the risk of new resource costs. This risk is small due to BPA's conservatively prepared capacity forecast and its projection of adequate power availability for FD sales. Carr, BPA, E-BPA-01, 4; E-BPA-02RS, 9-15.

PPC states that the "long-term nature of the FD rate" increases the risk of the rate not recovering the costs of the FD power; specifically, the cost of capacity acquired in the future to serve FD loads. Reply Brief, PPC, R-PP-01, 6. PPC's argument fails to recognize BPA's efforts to reduce that risk. The proposed FD rate is based on the cost of surplus firm power, the SP-85 rate. Carr, BPA, E-BPA-01, 7-8. The escalation factor for the FD-85 rate is based on the rate of increase in the PF rate over time multiplied by a risk premium factor of 1.02 compounded annually. See sections B and C, and discussion above. The FD rate escalator is designed to allow for the risk of new resource costs over time. Additionally, BPA relies on a capacity study that shows the availability of 2000 MW of surplus firm capacity over the term of the rate. BPA's capacity study is reasonable and conservative. Carr, BPA, E-BPA-02RS, 9-15. BPA does not intend to acquire resources to serve FD loads. Carr, BPA, E-BPA-02R, 6; TR 208. The FD rate poses little risk of BPA not recovering the costs of FD power.

Decision

The FD demand and energy charges will be escalated over the term of the FD contract at the rate of increase of the PF rate multiplied by a factor of 1.02 compounded annually. The 2 percent premium allows for the limited risk of new resource costs. The "PF+2" escalator will provide predictability to purchasers of FD power while sharing the risks of cost changes between BPA and the FD purchaser. To base the FD rate on the costs of only currently existing surplus firm power would place unreasonable risk on BPA's other firm power purchasers.

Issue #2

If BPA's cost classification or seasonal differentiation changes over time, should those changes be reflected in the proposed FD rate?

Summary of Positions

BPA initially proposed that the FD-85 rate schedule would be effective for 5 years. The proposed demand and energy charges would be escalated from their initial levels after 1987 using factors specified in the rate schedule. After 5 years, the demand and energy charges (if energy is available) and escalation factors would be determined for the next 5 years in a section 7(i) rate hearing. The demand charge would be constrained over the term of the FD contract to the rate of increase of the PF rate at 55 percent load factor. Carr, BPA, E-BPA-01, 11, 13-14.

PPC claims that BPA would be exposing its customers to the risk of revenue underrecovery from the proposed FD rate by "fixing the calculation of the FD rate before knowing what costs will be incurred in the future." Opening Brief, PPC, B-PP-01, 15. PPC states that "rate changes resulting from changes in plant classification should not be prohibited Above all, the components of the rates should not be fixed unalterably for the term of the contract." Wolverton and Drummond, PPC, E-PP-01, 19.

Evaluation of Positions

One of PPC's concerns is that the "fixed" components of the proposed FD rate--the demand and energy charge escalators and the demand charge ceiling--could result in an underrecovery of the costs allocated to the FD rate. An underrecovery from FD sales could result in higher rates to BPA's other customers and a risk of not meeting BPA's repayment obligations. PPC claims that the stability and predictability built into the proposed FD rate is at the expense of BPA's other customers. Opening Brief, PPC, B-PP-01, 15. This concern is addressed in the previous sections B and C.

PPC argues that cost underrecovery could be caused by changes over time of the pattern of cost incurrence. PPC specifically mentions that changing seasonality of "both loads and resources in the region" and changes in plant classification are reasons that the "components" of the FD rate should not be fixed for the entire term of the contract. Wolverton and Drummond, PPC, E-PP-01, 19.

Because the FD rate is not seasonally differentiated, a change in the seasonality of costs could cause an underrecovery only from a customer who is taking partial year service. The Partial Year Service Adjustment is designed to avoid this problem by charging more per MW-month for partial year service regardless of the months of purchase.

Similarly, as long as the utility is purchasing both capacity and energy at a load factor near BPA's, a change in the classification of costs between demand and energy will not cause an underrecovery. PPC is correct that if the utility is purchasing naked capacity and BPA's cost classification becomes more capacity-intensive, an underrecovery could occur. This possibility is obviated by three factors. First, BPA's cost classification is based on forward-looking costs and thus reflects the relative costs of future capacity

and energy resources. Second, BPA will be selling naked capacity when it is surplus in capacity but in balance for energy. In such a situation, it reasonably could be expected that energy costs would escalate more quickly than capacity costs. Finally, the proposed formula escalator contains a margin for relatively small risks such as changes in classification or seasonality.

Decision

The FD rate components and escalators will be fixed over the term of the FD contract. Establishing the FD rates and escalators will enhance the rate predictability needed to make FD sales. Changes in seasonality or classification may pose a minor risk of underrecovery from the FD rate. However, this risk is mitigated, as discussed above, by BPA's cost classification, BPA's energy and capacity surplus, and the "PF+2" escalator.

Issue #3

Should the surcharges resulting from application of sections 7(b)(2) and 7(b)(3) of the Pacific Northwest Power Act and section 8(h) of the General Contract Provisions (GCPs) apply to the proposed FD-85 rate?

Summary of Positions

Noting that no surcharges had been imposed in BPA's 1985 rate case, BPA initially proposed that the surcharges, if any, would be applied after the first 5 years the rate is effective, consistent with their treatment in the relevant rate filing and within the constraints of the demand charge ceiling. Carr, BPA, E-BPA-02R, 18-19.

PP&L agrees with BPA's initial proposal. Opening Brief, PP&L, B-PL-01, 8.

PGE and PPC state that the 7(b)(2), 7(b)(3), and 8(h) surcharges should be included in the proposed FD-85 rate. Opening Brief, PGE, B-GE-01, 8; Kellerman and McCullough, PGE, E-GE-01, 12-13; Reply Brief, PPC, R-PP-01, 5-6; Opening Brief, PPC, B-PP-01, 16-17; Wolverson and Drummond, PPC, E-PP-02R, 10.

In the Draft ROD, BPA provided that surcharges to the FD-85 rate would be reflected in the "PF+2" escalator. BPA, Draft ROD, A-01, 26-27.

Evaluation of Positions

PGE states that the FD rate "should be made subject to the 7(b)(2), 7(b)(3), and GCP 8(h) surcharges." Otherwise, PGE claims, the rates to BPA's other customers would be unreasonably volatile, and the underlying purposes of the surcharge provisions could be defeated. Kellerman and McCullough, PGE, E-GE-01, 12-13. Since the proposed FD rate initially was to be subject to the surcharges after the first 5 years, but only to the limit of the demand charge ceiling, it may be inferred that PGE's proposal would apply the surcharges both within the first 5 years and without regard to the demand charge

ceiling. Carr, BPA, E-BPA-02R, 18-19. PPC supports PGE's testimony, stating that the FD rate should "be made subject to the surcharges like BPA's other rates." Wolverton and Drummond, PPC, E-PP-02R, 11.

The reason that BPA did not provide for the surcharges for the first 5 years was that no surcharges were applied to BPA's 1985 wholesale power rates. Carr, BPA, E-BPA-02R, 18-19. In fact, methodologies to allocate the surcharges will be developed only when they are necessary, in future section 7(i) rate hearings. *Id.*, 19. Thus it is premature of PPC and PGE to claim that the "volatility of other rates would be increased." Wolverton and Drummond, PPC, E-PP-02R, 10; Opening Brief, PGE, B-GE-01, 8; Kellerman and McCullough, PGE, E-GE-01, 12. The amount of the surcharges and their effect on BPA's ratepayers cannot be predicted at this time. The same logic holds for PGE's and PPC's concerns about equity among rate classes and "defeating the purpose" of the surcharges. Opening Brief, PGE, B-GE-01, 8; Kellerman and McCullough, PGE, E-GE-01, 12-13; Opening Brief, PPC, B-PP-01, 16-17. That is, the PGE and PPC claims cannot be evaluated because the surcharges have not yet been applied. Carr, BPA, E-BPA-02R, 18-20.

However, BPA now proposes that a "PF+2" escalation factor will apply to the proposed FD rate components. This escalation factor will provide additional protection compared to that which would have been provided by the demand charge ceiling, and increases the stability and predictability of the FD rate. *Id.*, 20; Hammerquist, PP&L, E-PL-02R, 11. Such stability and predictability are necessary for marketing BPA's surplus firm power in an uncertain market. Carr, BPA, E-BPA-02R, 10 (citing support from PGE, PP&L, and Pacific Gas and Electric Company); Opening Brief, PP&L, B-PL-01, 8. The "PF+2" escalation factor is designed to cover costs that may result from imposition of the surcharges.

PPC alleges that the proposed "PF+2" escalator does not properly allocate surcharges to FD purchasers because the PF rate is protected from certain of the surcharges. Reply Brief, PPC, R-PP-01, 5-6. To the contrary, the PF rate could incur significant surcharges. PPC ignores the possibility of a bifurcated PF rate, in which case PF exchange loads could be allocated 7(b)(2) and 7(b)(3) surcharges. Also, the 2 percent adder on the "PF+2" escalator is designed to allocate additional costs of the surcharges to FD purchasers. PPC also alleges that the "PF+2" escalator is inappropriate for allocating surcharges since surcharges are in addition to costs allocated to a particular customer. *Id.* This argument is unconvincing, however. BPA is establishing a long-term rate. Such a rate necessarily must be based on forecasted costs and must provide sufficient certainty to be marketable. Part of the "PF+2" escalator is in addition to the costs of the FD rate in order to allocate potential future surcharges. Simply because projected surcharges are allocated at the establishment of a long-term rate does not mean that they cease to be surcharges.

Decision

The section 7(b)(2), 7(b)(3), and GCP 8(h) surcharges have been equitably allocated to the FD-85 rate through the "PF+2" escalator. To the extent that the surcharges are included in the PF rate, they will be reflected in the "PF+2" escalator. In addition, the surcharges, if any, that are not included in the PF rate reasonably can be expected to be covered by the 2 percent escalator premium.

Issue #4

How should the FD rate be affected by allocations of currently unforeseen costs, such as changes in BPA's repayment methodology and revenue fluctuations caused by the Variable Industrial rate proposed for the DSIs?

Summary of Positions

The proposed FD-85 rate was developed based on the costs allocated to the surplus power rate class in the 1985 general rate proceeding. Carr, BPA, E-BPA-02R, 18. BPA initially proposed that the demand charge and escalator would be recalculated after 5 years, subject to the proposed FD-85 demand charge ceiling, in a section 7(i) rate hearing. Carr, BPA, E-BPA-01, 13. If energy is projected to be available after the first 5 years, the energy charge was to be determined in a section 7(i) rate hearing prior to the year the energy is forecast to be available. Carr, BPA, E-BPA-02R, 16-17.

APAC states that the proposed FD rate should "share equally in . . . potential cost increases," such as an increase in BPA's repayment obligation or any revenue underrecovery from the proposed DSI Variable Industrial rate. Cook, APAC, E-PA-01, 19-20; Opening Brief, APAC, B-PA-01, 20.

PP&L disagrees with APAC's position, and notes that such position would give less favorable treatment to an FD purchaser than to an SP purchaser. Hammerquist, PP&L, E-PL-02R, 13.

Evaluation of Positions and Decision

APAC's proposal would base the FD-85 rate on the SP-85 rate "from FY 1987 until BPA is no longer selling substantial FD energy," and would escalate the rate by "the periodic percentage increase or decrease in the average NR [New Resources Firm Power] rate." Cook, APAC, E-PA-01, 21. If the NR rate were not allocated certain costs, such as those of increased BPA repayment obligations or the DSI Variable rate underrecovery, however, APAC states that "the FD escalation should reflect the cost increases allocated to all other ratepayers." *Id.* In its Opening Brief, APAC reiterates: "the energy escalators for the FD rate . . . [must be tied] to the actual increase in BPA's other rates, rather than a forecast percentage. Since BPA considers the FD rate to be a §7(f) rate, it should not be insulated from the allocation of cost increases that would be applied to other §7(f) rates." Opening Brief, APAC, B-PA-01, 20.

If APAC's proposal were implemented, the potential purchaser of FD power would be faced with a virtually uncertain rate. Carr, BPA, E-BPA-02R, 10; Hammerquist, PP&L, E-PL-02R, 13. The benefits of rate stability and predictability are discussed at length throughout this chapter; those discussions will not be repeated here.

APAC's concern is that the FD rate should bear its fair share of BPA's costs over time. Cook, APAC, E-PA-01, 19-21; E-PA-02R, 5; Opening Brief, APAC, B-PA-01, 20. APAC provides no evidence to demonstrate that the proposed FD rate would not bear an equitable share of costs over time. Carr, BPA, E-BPA-02R, 11. APAC's discussion also ignores the potential revenue benefits to BPA and its customers of the proposed FD rate. *Id.* The FD rate is designed to complement BPA's existing rates for surplus firm power; thus, it should enhance BPA's revenues. *Id.*, 7; Opening Brief, PP&L, B-PL-01, 1-2; Opening Brief, PGE, B-GE-01, 2-3; Opening Brief, DSI, B-DS-01, 2.

The "PF+2" demand and energy charge escalators will help ensure that the proposed FD rate will recover currently unforeseen costs. To the extent that unforeseen costs are included in the PF rate, the costs will be reflected in the "PF+2" escalator. If any such costs are not included in the PF rate, they reasonably can be expected to be covered by the additional 2 percent. Thus, the FD rate would share in currently unforeseen costs.

E. Partial Year Service Adjustment

Issue

Should the Partial Year Service Adjustment be waived for non-peak season sales?

Summary of Positions

BPA proposes that the Partial Year Service Adjustment should be applied to all sales of FD power of less than 12 months per year. Carr, BPA, E-BPA-01, 10; Attachment 1, 1.

PGE contends that the FD rate schedule should eliminate the Partial Year Service Adjustment for FD sales (1) that are for a minimum of 5 months per year; and (2) that include no deliveries during the Northwest's peak winter season. Opening Brief, PGE, B-GE-01, 7; Kellerman and McCullough, PGE, E-GE-01, 10.

SCL and APAC oppose the PGE proposal. Nelson, SCL, E-SL-01AR, 4; Cook, APAC, E-PA-02R, 6.

PPC proposes that the FD rate schedule should include seasonal surcharges, which would change over time based on power availability. Wolverton and Drummond, PPC, E-PP-02R, 9-10.

Evaluation of Positions

PGE advocates eliminating the Partial Year Service Adjustment for FD sales that occur entirely outside of the PNW winter peak period. PGE believes that year-around sales of BPA's surplus firm power, which the Adjustment is designed to encourage, could increase the risk of power availability for BPA's firm power customers. Kellerman and McCullough, PGE, E-GE-01, 9-10. PPC states that "[i]f BPA desires to make capacity sales for less than a full year, we suggest seasonal surcharges based upon availability." Wolverton and Drummond, PPC, E-PP-02R, 10.

APAC argues that PGE's concern about the risk of power availability is primarily a forecasting issue. Cook, APAC, E-PA-02R, 6. The same could be said of PPC's proposal. In actuality, BPA forecasts that on average more power will be available for surplus sales during the winter peak period than in the summer offpeak period. Carr, BPA, E-BPA-02R, 15. Since less surplus firm power is forecast to be available in the summer, no operational benefit would result from encouraging summer season sales. Carr, BPA, E-BPA-02R, 15. The proposed FD rate is based on BPA's Surplus Firm Power rate; thus, no cost basis exists for seasonally differentiating the FD rate. Carr, BPA, E-BPA-01, Attachment 1, 1. See Section III.D., issue #2, and Section III.J.

PGE's proposal fails to recognize that any BPA firm sale for less than a full year costs more per kilowattmonth than does a year-around sale. Carr, BPA, E-BPA-02R, 15; TR 201-202; Cook, APAC, E-PA-02R, 6. PPC's proposal would needlessly complicate the rate and remove some of its predictability (since availability will change monthly and yearly), and for the wrong reason. BPA has proposed to recover the additional costs of partial year sales from the customers who cause the costs to be incurred. Carr, BPA, E-BPA-01, 10; E-BPA-02R, 15. In addition, the adjustment should track a purchaser's benefits as well as BPA's costs; a purchase for less than a year likely would be of greater value per kilowattmonth because capacity could be purchased only during the purchaser's peak months.

Decision

The Partial Year Service Adjustment is retained as proposed by BPA. The adjustment is designed to compensate BPA for the costs of making firm sales on a partial-year basis. It also protects BPA from the risk that costs in the future could become more concentrated during the months of a partial-year FD sale.

F. Extended Peaking and Rate of Return Surcharges

Issue

How should the Extended Peaking Surcharge and the Rate of Return Surcharge be calculated?

Summary of Positions

BPA's initial proposal specified that surcharges "similar" to those included in the CF-85 rate schedule would "be established pursuant to contract." Carr, BPA, E-BPA-01, Attachment 1, 3. That provision of the proposed rate schedule later was amended to read the same as the surcharge provision of the CF-85 rate schedule. Carr, BPA, E-BPA-02R, 17.

APAC states that the extended peaking and rate of return surcharges should be calculated as were the surcharges in the CF-85 rate, except that the SP-85 demand charge of \$5.90/kW should be used instead of the CF-85 demand charge of \$3.62/kW to value the sustained peak reduction. Cook, APAC, E-PA-01, 25; 56 (HC-6).

Evaluation of Positions

APAC bases its proposal on the fact that the CF-85 rate schedule does not apply to contracts signed after July 1, 1985. Opening Brief, APAC, B-PA-01, 24. In the future, however, naked capacity may be sold under the PF, NR and SP rate schedules. APAC's proposal assumes that, at the margin, the cost of the energy loss caused by sustained generation is based on the cost of capacity under the SP-85 rate. Cook, APAC, E-PA-01, 25, 56; Carr, BPA, E-BPA-02R, 17. BPA determined in the 1985 rate proceeding that the rate of return surcharges for the PF-85, SP-85, and NR-85 rate schedules should be based on the CF-85 demand charges. This values the energy lost from BPA's system at approximately BPA's average system cost of capacity. Carr, BPA, E-BPA-02R, 17. APAC presents no evidence why the surcharges for the proposed FD-85 rate, which have the same cost basis as the PF-85, SP-85, and NR-85 rates, should not be based on the same cost of capacity as the surcharges for the other rates.

Decision

The provisions for the Extended Peaking Surcharge and the Rate of Return Surcharge included in the FD-85 rate schedule should be identical to the provisions for those surcharges in the CF-85 rate schedule.

G. Billing Factors

Issue

How should the FD-85 billing factors be defined?

Summary of Positions

BPA's initial proposal stated that: "The billing factors shall be the Contract Demand and Contract Energy, unless otherwise specified in the contract." Carr, BPA, E-BPA-01, Attachment 1, 2.

The DSIs pointed out that the proposed language defining billing factors should assure that the FD purchaser would be billed on a take-or-pay basis on Contract amounts rather than actual, potentially less, amounts. Opening Brief, DSI, B-DS-01, 5; Young, DSI, E-DS-01, 3.

In rebuttal testimony, BPA proposed removing the words "unless otherwise specified in the contract" from the definition of billing factors. Carr, BPA, E-BPA-02R, 18.

Evaluation of Positions and Decision

The DSIs argue that the wording of BPA's initial proposal definition of billing factors would allow an FD purchaser to negotiate contract provisions that would allow purchase of FD power without take-or-pay responsibility. The FD purchaser would be able to profit at BPA's expense by having the right to purchase FD power when the market for surplus firm power was good, without the obligation to purchase when market conditions were poor. Opening Brief, DSI, B-DS-01, 5; Young, DSI, E-DS-01, 3. BPA agrees, and proposes that the last phrase of the definition of billing factors be removed. Carr, BPA, E-BPA-02R, 17-18.

Thus, billing factors are defined in the FD-85 rate schedule to be Contract Demand and Contract Energy.

H. PNW Use of FD Power

Issue

Should power purchased under the proposed FD-85 rate schedule be available to serve regional load without a corresponding sale of displaced resource(s) out of the region?

Summary of Positions

The proposed FD-85 rate schedule states that FD power shall be used to serve PNW loads to the extent that a corresponding sale of the output of a resource(s) displaced by the FD sale is made out of the region. Carr, BPA, E-BPA-01, 3, 5, 6; Attachment 1, 1; E-BPA-02R, 9; TR 193, 200, 247-248.

PGE contends that FD purchasers should be allowed "to utilize some of their FD purchases for their own use." Opening Brief, PGE, B-GE-01, 7; Kellerman and McCullough, PGE, E-GE-01, 11; TR 327-331.

PPC argues that FD power should not be used to serve regional loads without displacing a resource to be sold to the PSW. Wolverton and Drummond, PPC, E-PP-02R, 3, 11.

APAC states that "FD power should not be used to serve the purchasers' own load requirements without an equivalent off-system sale of a displaced resource." Cook, APAC, E-PA-02R, 7.

SCL argues that PGE's proposal "could exacerbate [sic] rate stability with the 7(f) pool." Nelson, SCL, E-SL-01AR, 5.

Evaluation of Positions

PGE justifies its proposal by claiming that the "supply and price guarantees" that would be available to an FD purchaser should be made available to PNW customers without the requirement that an equivalent sale be made to the PSW. Opening Brief, PGE, B-GE-01, 7-8. Relaxing the conditions of the FD sale, however, would defeat the purpose of the proposed FD rate: to assist BPA in selling its surplus firm power on a long-term basis without harming other BPA sales. Carr, BPA, E-BPA-02R, 9; Cook, APAC, E-PA-02R, 7; Nelson, SCL, E-SL-01AR, 5-6.

PGE suggests that their proposal would enhance the marketability of FD power in the PNW. The FD purchasers, in turn, would be provided additional flexibility in their efforts to market their surplus firm power out of the region. Kellerman and McCullough, PGE, E-GE-01, 11-12.

PGE believes that PNW investor-owned utilities would purchase more capacity from BPA if FD power were available for within-region use. PGE claims that BPA's preference customers thus would benefit. Kellerman, PGE, TR 329. However, PGE also states that the use of FD power to serve PNW loads without requiring a corresponding resource displacement would "hold sales under other rate schedules constant, or under certain conditions, . . . potentially decrease them." Kellerman, PGE, TR 327.

PGE presents no evidence to support its claim of potential benefits to BPA or its customers from its proposal. Carr, BPA, E-BPA-02R, 9. Implementation of PGE's proposal could decrease BPA's sales at the NR-85 rate. Wolverton and Drummond, PPC, E-PP-02R, 11; Cook, APAC, E-PA-02R, 7; Nelson, SCL, E-SL-01AR, 5; Kellerman, PGE, TR 327. BPA must avoid such a conflict in order to meet its revenue requirement. Carr, BPA, TR 247-248. The NR rate schedule is available for the purchase of power to be used in the PNW; the FD rate schedule is proposed as a means for BPA to market its surplus firm power. PGE does not justify using the proposed FD-85 rate schedule for other than its stated purpose. No benefits of such use can be assumed. Carr, BPA, E-BPA-02R, 9. Potential harm could result.

Decision

The FD-85 rate schedule is available for the purchase by PNW utilities of firm power for use within the region, to replace firm resources exported from the PNW for at least 3 years.

I. Surcharge for FELCC Shift

Issue

Should the FD rate schedule include a surcharge to be assessed purchasers of FD power if operational shifts are made for their benefit?

Summary of Positions

BPA did not address operational shifts of energy in its initial proposal. Carr, BPA, TR 212.

APAC claims that FELCC may be shifted expressly to serve FD loads. BPA's other customers should be protected from the risk of such an occurrence. "Either FD purchasers should pay for replacement energy if it is required, or BPA should have the right to restrict FD load in order to avoid the need to acquire replacement energy." Opening Brief, APAC, B-PA-01, 25-26; Cook, APAC, E-PA-01, 44.

PP&L opposes APAC's proposal as inconsistent with BPA's operational requirement to attempt to meet its firm load. Hammerquist, PP&L, E-PL-02R, 14-15.

The DSIs state that if FELCC is shifted to serve "FD energy contracts," such a shift should not "reduce the quality of DSI top quartile service below the level of service in the 1981-82 annual operating agreement." Reply Brief, DSI, B-DS-02, 3.

Evaluation of Positions

APAC's proposal is designed to shield "other BPA customers" from the increased operating costs "later in the critical period" that could result from using operational shifts to serve the FD load. APAC advocates either surcharging FD purchasers, or restricting service to FD loads to prevent shifting. Opening Brief, APAC, B-PA-01, 26; Cook, APAC, E-PA-01, 44.

APAC's proposal to restrict FD service to prevent shifting FELCC implies that FD sales would be less firm than BPA's other sales of firm power. BPA makes operational shifts of energy as a short term solution to a forecasted deficit of firm power. As such, shifts benefit all of BPA's firm power customers. Carr, BPA, E-BPA-02R, 14; Hammerquist, PP&L, E-PL-02R, 14.

APAC uses the DSIs as an example of a particular load that BPA shifts energy to serve. Opening Brief, APAC, B-PA-01, 25-26. However, the DSI contracts have provisions that allow the DSIs to request a shift of FELCC to serve a portion of their loads. Carr, BPA, TR 156. A firm quality of service is the contractual right of any firm power sales customer. No surcharge should be assessed if an operational shift is made to maintain that firm service; likewise, firm service should not be restricted to avoid shifting. Hammerquist, PP&L, E-PL-02R, 14-15. The amount and allocation of FELCC energy

available to serve the DSI first quartile and BPA's firm loads is addressed in Section 8 of the DSIs' power sales contracts, and will be taken into account in BPA's overall power marketing program, including FD contract negotiations.

Decision

FELCC is shifted to benefit all of BPA's firm power customers; no one rate class can be singled out as the beneficiary. BPA's rate schedules for firm power do not contain provisions to levy a surcharge if an operational shift of firm energy is made.

J. Seasonal Differentiation

Issue

Should the proposed FD-85 rate be seasonally differentiated?

Summary of Positions

The proposed FD-85 rate is not seasonally differentiated. Carr, BPA, E-BPA-01, Attachment 1, 1.

PPC claims that the FD rate "should exhibit some seasonality." Wolverton and Drummond, PPC, E-PP-01, 19.

Evaluation of Positions

PPC is concerned that the FD-85 rate should reflect the seasonality of the availability of surplus firm power. PPC points out that the amount of surplus firm power available exhibits "tremendous seasonality ... and the pattern can be expected to change." Wolverton and Drummond, PPC, E-PP-01, 18-19. PPC presents tables that show the amount of available surplus firm power varying significantly on a month-to-month basis. Wolverton and Drummond, PPC, E-PP-01, Attachment 1. PPC provides no recommendation as to how the different amounts of available surplus firm power, which vary by month and from year to year, should be reflected in the proposed FD-85 rate in an administratively feasible manner.

APAC's rebuttal to PGE's suggestion that the Partial Year Service Adjustment should be removed from the proposed FD-85 rate schedule is equally applicable to PPC's concern over seasonality. That is, "[t]his is a forecasting issue which simply demonstrates that BPA should be conservative in the amount of FD capacity it declares to be available under the FD program." Cook, APAC, E-PA-02R, 6-7. BPA's forecast of surplus firm power available is reasonably conservative. Carr, BPA, E-BPA-02RS, 9-15.

BPA's existing rates for surplus firm power and energy are not seasonally differentiated for two reasons. First, the loads and underlying costs in the PNW and PSW exhibit different seasonality. Since BPA designs its rates on a cost basis in order to send economically efficient price signals, and since

the FD rate is designed for sales in the PNW that would facilitate a sale of power from the FD purchaser to the PSW, a study of the load patterns in the PSW would be necessary to seasonally differentiate the FD rate. 1985 Administrator's Record of Decision, WP-85-A-02, 270. Second, BPA is forecast to be more surplus during the PNW winter peak season than in the summer season. Carr, BPA, E-BPA-02R, 15. If the availability of surplus firm power according to BPA's projection were reflected in the proposed FD-85 rate, the rate could hinder rather than enhance BPA's marketing efforts: PSW loads and costs are highest in the summer season. 1985 Administrator's Record of Decision, WP-85-A-02, 270.

Decision

The proposed FD-85 rate will not be seasonally differentiated.

Chapter IV

OTHER ISSUES

For reasons set forth below, BPA considers the issues discussed in this chapter not to be ratemaking issues in the instant proceeding. These issues are instead related to the contracts to be negotiated between BPA and Pacific Northwest utilities for the sale of BPA's surplus firm power at the FD rate, or to other BPA proceedings and policies. Contract issues are not properly resolved in the Firm Displacement Power rate section 7(i) ratemaking proceeding.

BPA ratemaking is conducted pursuant to section 7(i) of the Pacific Northwest Power Act, 16 U.S.C. §839e(i). Section 7(i) provides that "[i]n establishing rates under this section, the Administrator shall use the following procedures" (emphasis added). By its very terms, the statute provides that the procedural requirements of section 7(i) apply only to the establishment of rates, not to the establishment of contract provisions. This conclusion is also supported by the legislative history of the Pacific Northwest Power Act. The report of the House Committee on Interior and Insular Affairs states that "[s]ection 7(i) sets forth detailed procedures BPA must follow in establishing rates." H.R. Rep. 96-976, Part II, 96th Cong. 2d Sess. 53 (1980). Similarly, the report of the House Committee on Interstate and Foreign Commerce states that "[s]ection 7(i) establishes rather detailed procedures for ratemaking." H.R. Rep. 96-976, Part I, 96th Cong. 2d Sess. 69 (1980).

The Pacific Northwest Power Act contains separate provisions governing the establishment of power sales contracts. For example, section 5(g), 16 U.S.C. §839c(g), provides that "[a]s soon as practicable within 9 months after the effective date of this Act, the Administrator shall commence necessary negotiations for, and offer, initial long-term contracts" (emphasis added). Thus, contract provisions are to be negotiated, unlike ratemaking provisions. Section 5 of the Act expressly distinguishes between sales of power pursuant to contract and the rates at which such sales are made. Section 5(a) of the Act, 16 U.S.C. §839c(a), provides that "[a]ll power sales under this Act shall be subject at all times to the preference and priority provisions of the Bonneville Project Act of 1937 Such sales shall be at rates established pursuant to section 7."

The Pacific Northwest Power Act is quite clear in providing that ratemaking procedures do not apply to the development of contract provisions. This point also has been affirmed by the U.S. Court of Appeals for the Ninth Circuit. In California Energy Resources Conservation and Development Commission (CEC) v. Johnson, No. 81-7809 (9th Cir. February 24, 1986), the CEC challenged a provision of a BPA power sales contract, alleging that the contract provision should have been established in a section 7(i) ratemaking proceeding. The court noted that "[s]ection 7(i) does not require that

contract provisions be adopted after full ratemaking proceedings. Rather, it requires that rates be set according to certain procedures." Id., slip op. at 15.

The court's decision in CEC v. Johnson is consistent with BPA's past administrative practice. Pursuant to section 5(g) of the Pacific Northwest Power Act, BPA negotiated long-term power sales contracts with its customers in 1981. See Aluminum Co. of America v. Central Lincoln People's Utility District, ___ U.S. ___, 104 S. Ct. 2472 (1984). Terms and conditions of service were negotiated and included in the power sales contracts. The contracts were not established in ratemaking proceedings pursuant to section 7(i) of the Pacific Northwest Power Act. Cf. Central Lincoln People's Utility District v. Johnson, 735 F.2d 1101 (9th Cir. 1984).

APAC and Vernon argue that CEC v. Johnson does not support BPA's distinction between rate issues and contract issues. Reply Brief, APAC, R-PA-01, 9-10; Reply Brief, Vernon, R-VC-01, 20-21. In CEC v. Johnson, the CEC alleged that two contract provisions effectively established rates without observing the procedural ratemaking requirements of section 7(i) of the Pacific Northwest Power Act. The court held that challenges to the two contract provisions were not ripe because "[n]o actual rate made in violation of section 7 of the Regional Act is being challenged in this action." Id., slip op. at 12. See also slip op. at 15. Vernon argues that CEC v. Johnson therefore holds that contractual provisions should be established in administrative proceedings along with the rates they affect or may affect. Reply Brief, Vernon, R-VC-01, 21-22. This, however, is not the holding of the case. The case holds that where a contractual provision addresses the manner in which BPA establishes rates, there must be actual rates affected by the contractual provisions in order to provide a context for the court's determination. Otherwise, a decision "would resolve a dispute about hypothetical rates." Id., slip op. at 12. Furthermore, BPA does not argue that contractual provisions cannot be considered as a context in the development of rates. BPA maintains that contractual provisions are not properly established in ratemaking proceedings. APAC and Vernon have not refuted the express language of the court's opinion: "Section 7(i) does not require that contract provisions be adopted after full ratemaking proceedings. Rather, it requires that rates be set according to certain procedures." Id., slip op. at 15.

APAC and Vernon note that the Hearing Officer denied BPA's motions to strike the testimony of parties raising non-ratemaking issues. Reply Brief, APAC, R-PA-01, 12; Reply Brief, Vernon, R-VC-01, 15. APAC and Vernon conclude that non-ratemaking issues are properly resolved in ratemaking proceedings. This is incorrect. APAC and Vernon quote a portion of the Hearing Officer's order out of context. Id. The Hearing Officer did not hold that non-ratemaking issues are properly resolved in ratemaking proceedings; rather, he held that non-ratemaking information can be admitted in a rate hearing as a context for establishing rates. The Hearing Officer stated:

. . . On February 13, 1981, Acting Administrator Gjelle issued a document providing "Supplementary Information" to the Procedures Governing Bonneville Power Administration

Rate Adjustments. On page 3 there is a reference to the definition of "rate" contained in the Procedures. The Supplementary Information document observes that the quantity, quality, terms, conditions and restrictions regarding service are noted in the rate hearings, but are determined by contract, not by ratemaking. The reasons for noting them in a rate hearing would be to render views, questions, data and arguments meaningful and comprehensible. If one gives heed to the statement in the Procedures (1010.2(g)) that a "rate may be set forth in a rate schedule or in a contract" the extremes to which the "raised in the contract forum" doctrine could be carried are obvious.

It is not logical to confine the subject matter in a rate hearing to name of the rate, price for energy, price for capacity and a few other details. Thus in Pacific Power and Light v. BPA, 589 F. Supp. (D. Or. 1984) the Court recognized that average system cost issues are "interwoven with Section 7 rate determinations". 589 F. Supp at 545. The terms of availability of rates are rate matters. Portland General Electric Co. v. Johnson 754 F. 2d 1475, 1481 (9th Cir. 1985).

Views and questions reasonably related to rate issues intermixed with impacting issues (even though the latter technically are not definable as "rate" matters) are admissible in this proceeding. In rate proceedings carried out in prior years this approach has made it possible for the Administrator to exercise informed judgment in deciding whether a proposed rate should be placed in effect, and to issue supportable rate determinations. (Emphasis in original.)

FD-85-0-10.

In summary, the Hearing Officer held that the testimony of the parties' witnesses was admissible in the rate hearing in order "to render views, questions, data and arguments meaningful and comprehensible." Id. The Hearing Officer did not hold that nonratemaking issues were to be resolved in a ratemaking proceeding. Quite the opposite, the Hearing Officer held that the "quantity, quality, terms, conditions and restrictions regarding service are noted in the rate hearings, but are determined by contract, not by ratemaking." (First emphasis in original, second emphasis added.) Id. The Hearing Officer held that non-ratemaking information was admissible, not that non-ratemaking issues are to be resolved in the ratemaking forum.

Vernon argues that Pacific Power & Light Co. v. BPA, 589 F.2d 539 (D. Or. 1984), holds that a change in the ASC (Average System Cost) methodology is a rate matter. The cited authority is inapposite. Vernon's quotation of the opinion rebuts Vernon's argument. The court stated that "[p]laintiffs are correct that the ASC methodology is not a section 7 rate matter." (Emphasis

added.) Id. at 545. The court noted, however, that the ASC methodology establishes rates which are reviewed under the Federal Power Act. These, of course, are not rates for the sale of BPA power. Further, while BPA programs necessarily affect BPA's costs and thus, indirectly, BPA's rates, such programs are not determined in rate proceedings.

APAC and Vernon cite Portland General Electric Co. v. Johnson, 754 F.2d 1475 (9th Cir. 1985) as support for their argument that contract provisions should be established in ratemaking proceedings. Reply Brief, APAC, R-PA-01, 10; Reply Brief, Vernon, R-VC-01, 18. APAC and Vernon note that the court stated that a "change in the availability provisions of the rate schedules constitutes ratemaking." PGE v. Johnson at 1481. BPA agrees with the court. The FD-85 rate contains an availability section and BPA has allowed all parties to address this issue in the rate proceeding. The availability section, however, simply notes the sales to which the rate applies. It does not establish the terms and conditions of power sales. Furthermore, APAC and Vernon submitted no testimony suggesting changes to the availability section of the FD rate. The fact that BPA's rate schedules contain an availability section does not mean that contract provisions should be established in ratemaking proceedings.

APAC and Vernon cite City of Seattle v. Johnson, 9th Cir. Nos. 83-7947 and 84-7591, arguing that BPA claims the parameters of its ratemaking are broad. Reply Brief, APAC, R-PA-01, 11; Reply Brief, Vernon, R-VC-01, 17. This argument makes little sense. In City of Seattle, petitioners challenge the availability charge section of the PF rate schedule. BPA maintains that where a party challenges a section of a BPA rate schedule, it should do so when the court reviews the lawfulness of BPA's rates following confirmation and approval by the Federal Energy Regulatory Commission. Central Lincoln II, 735 F.2d 1101 (9th Cir. 1984). BPA does not claim that contract provisions should be established in ratemaking proceedings.

In summary, the purpose of the FD rate proceeding is to develop an FD rate, not to develop the terms and conditions of sales of FD power which are established by contract.

A. Availability of Surplus

Issue

Has BPA properly calculated the surplus firm capacity it has available for sale at the proposed FD-85 rate?

Summary of Positions

BPA calculates that 2000 megawatts of surplus capacity are available to market for 20 years. Carr, BPA, E-BPA-01, 4. This projection is based on BPA's "20 Year Projection of Peak Loads and Resources." Carr, BPA, E-BPA-02RS, 9.

PPC and APAC contend that BPA's projection of surplus capacity should be more conservative. Wolverton and Drummond, PPC, E-PP-01, 15; Cook, APAC, E-PA-01, 26. PPC argues that the following changes should be made: the probability that actual loads would exceed projected loads should be reduced from 50 percent to 40 percent; the peak period should be changed from 50 hours to 70 hours; and WNP-1 and -3 should be removed from the forecast of resources. Wolverton and Drummond, PPC, E-PP-01, 15-17. In addition, PPC asserts that BPA should consider future forebay and tailwater restrictions and the effects of the WNP-3 settlement on BPA's load requirements. Wolverton and Drummond, PPC, E-PP-01, 16. PPC states that BPA has not taken into account the "far-term risk" of "resource acquisition or construction." Reply Brief, PPC, R-PP-01, 3.

APAC argues that a more conservative forecast would result if BPA were to assume: high rather than medium load forecasts; the removal of WNP-1 and -3 from resource forecasts; and the use of a 1936-1937 water year instead of 1929-1930 water conditions. Cook, APAC, E-PA-01, 26-28; E-PA-02R, 1.

PP&L contends that the BPA's projections of surplus capacity should assume that existing 7(b), 7(c), and 7(f) contracts are renewed. Hammerquist, PP&L, E-PL-01, 4.

Evaluation of Positions

APAC and PPC allege that the medium load forecast used in BPA's capacity study is not sufficiently conservative. Cook, APAC, E-PA-01, 27; Wolverton and Drummond, PPC, E-PP-01, 17. APAC recommends using the high load forecast for the capacity analysis. Cook, APAC, E-PA-01, 27. PPC recommends lowering the probability that actual loads would exceed forecast loads from 50 to 40 percent. Wolverton and Drummond, PPC, E-PP-01, 17.

BPA uses a medium load forecast in long-range planning. The medium forecast has a 50 percent probability of forecast loads being exceeded by actual loads. Carr, BPA, E-BPA-02RS, 12. This procedure follows a standard utility ratemaking practice in the Pacific Northwest. Id. Medium load forecasts are used by both the PNUCC and the Northwest Power Pool in developing peakload forecasts. Id. BPA's load forecast also corresponds to standards contained in the Coordination Agreement. Id. Long range planning analyses use peakloads from a medium load forecast that has a 50 percent probability of being exceeded. Id. The use of a medium load forecast in the capacity study is therefore appropriate.

APAC states that the PNUCC and the Northwest Power Pool load forecasts, even though consistent in their "medium" load assumption with BPA's load forecast, show the capacity surplus ending sooner than shown by BPA's forecast. Reply Brief, APAC, R-PA-01, 8. This fact, APAC claims, supports offering the FD rate for less than the proposed 20 years. Id. APAC is incorrect. Although BPA's Twenty Year Capacity Projection and the PNUCC Northwest Regional Forecast both assume medium load growth, the two forecasts use different assumptions about resource acquisition to meet projected

deficits. BPA's forecast adds generic resources as necessary to meet energy deficits; PNUCC's forecast adds only resources under construction or planned. See Baldrice, BPA, TR 261-264. See also BPA, E-BPA-09, 13, TA-16, TA-17; BPA, E-BPA-10, I-4- I-10, II-5. No party argues that it is unreasonable to assume that generic resources would be acquired if necessary to meet projected energy deficits. Thus, the forecasts do not support offering the FD rate for less than a 20 year term. APAC's argument on term of the FD contracts is addressed in section IV.F.

PPC argues that the peak definition should be changed from 50 hours to 70 hours in order to make the capacity forecast more conservative. Wolverton and Drummond, PPC, E-PP-01, 17. BPA bases its estimate of capacity surplus on 50-hour sustained capacity sales. Carr, BPA, E-BPA-02RS, 13. Clearly, projections of surplus capacity would be reduced under an assumption of 70-hour sustained capacity sales. However, BPA is not offering to make 70-hour capacity sales. Id., 13. The current FD contract principles provide for sales of capacity on a 50-hour sustained basis. Id. The sustained peak and energy return surcharges were designed to compensate for deliveries beyond such limitations. Id., 13-14. PPC has presented no reason for assuming that 70-hour sustained capacity sales are more likely than 50-hour sales.

PPC and APAC contend that WNP-1 and -3 should be excluded from BPA's list of forecasted resources. Wolverton and Drummond, PPC, E-PP-01, 16; Cook, APAC, E-PA-01, 27-28. PPC and APAC argue that if the WNP plants were not available, surplus capacity availability would be lower by the entire amount of capacity that the WNP plants would have provided. Id. While the parties' argument might be true on a typical thermal system, it does not follow on BPA's energy-constrained system. Carr, BPA, E-BPA-02RS, 13. In BPA's capacity forecast, a stack of generation resources is assumed available to meet projected energy deficits. Id. As energy deficits arise, resources are added to the system as needed. Such resources also provide capacity. Id. Currently, the WNP plants are added to meet projected energy deficits. Id. If WNP-1 and -3 were not available as assured resources, other resources would be needed to meet the same level of energy deficits and would provide capacity along with energy. Id. Therefore, removal of the WNP plants from the capacity forecast would not result in a loss of all of the capacity that the WNP plants would have provided. Id. The record establishes that even without the inclusion of WNP-1 and -3, the effective results of BPA's capacity studies are the same. Baldrice, BPA, TR 175.

PPC alleges that substitution of conservation or renewable resources would not add capacity to the system as well as energy. Opening Brief, PPC, B-PP-01, 10. PPC's citation to the record regarding the capacity benefit of conservation resources establishes the opposite. Carr, BPA, TR 188. While some conservation would not necessarily add the same amount of capacity as WNP-1 and -3, other conservation might add more capacity than a typical nuclear plant. Id. PPC is correct that "[u]ntil BPA actually acquires . . . resources the region will not know what the capacity and energy contributions of such resources will be." Reply Brief, PPC, R-PP-01, 5. However, this is true whether BPA is selling power under a 20-year contract for Firm Displacement power or a shorter term sale of Priority Firm power.

Uncertainty about the future, or the "far-term risk," is the reason BPA prepared its "20 Year Projection of Peak Loads and Resources" in the 1985 rate proceeding, on which the FD rate proposal was based. Carr, BPA, E-BPA-02RS, 9. BPA's forecast is reasonable and conservative. Id., 9-15. Furthermore, the escalators in the FD rate are designed to recover BPA's costs in the future. See sections II.4., III.B.4.

PPC correctly observes that the capacity study did not consider the effect of the WNP-3 Settlement on BPA's load requirements. Wolverton and Drummond, PPC, E-PP-01, 16. The WNP-3 Settlement terms were not available when the capacity study was completed in April 1985. The WNP-3 Settlement Agreement has since been signed. BPA studied the effect of the WNP-3 Settlement on its projected surplus capacity. The study, which is an update of the April 1985 capacity study, shows that the settlement does not reduce BPA's surplus firm capacity below the amount necessary to support an annual sale of 2000 MW and, in fact, increases BPA's surplus capacity slightly. WNP-3 Settlement Record of Decision (September 19, 1985), 86.

APAC contends that more conservative surplus capacity projections would result if 1936-37 water conditions were used instead of 1929-30 water conditions. Cook, APAC, E-PA-01, 28. APAC is incorrect. Use of 1929-1930 water conditions is a more conservative assumption than use of 1936-1937 water conditions. The 1929-30 water condition represents one of the worst water years for annual peaking capacity. Carr, BPA, E-BPA-01, 11. Under 50-hour sustained peaking conditions, BPA would expect better than 1929-30 water conditions 93 percent of the time. Id. Water conditions better than 1936-37, on the other hand, would occur 85 percent of the time. Id. Although the 1936-37 water year includes the worst January on record, and some months of 1936-37 exhibit less sustained peak capability than the corresponding months of 1929-30, overall 1929-30 is a worse water year than 1936-37. Carr, BPA, E-BPA-02RS, 11, and Attachment 3. PPC agrees that BPA acted conservatively in using 1929-30 water conditions to estimate hydro peaking capability. Wolverton and Drummond, PPC, E-PP-01, 15. BPA used a more conservative assumption in selection of the water year than would be attained with the 1936-37 water year. Carr, BPA, E-BPA-02RS, 11.

PPC alleges that BPA did not consider future tailwater and forebay restrictions on its hydro operations. Wolverton and Drummond, PPC, E-PP-01, 16. However, inclusion of possible tailwater and forebay restrictions would entail considerable speculation. Carr, BPA, E-BPA-02RS, 11. Also, given the possible removal of some current restrictions, a consideration of all possible future restrictions could lead to an increase, not a decrease, in projected surplus firm capacity. Id. Finally, the PPC's own capacity analysis did not empirically address these restrictions. Id.

APAC alleges that BPA did not consider the effect on peak capacity of BPA's new resource strategy, new fish spill amounts, and the duration of assumed sustained peak. Opening Brief, APAC, B-PA-01, 21. These allegations are inaccurate. Consideration was given to alternative resources. Baldrice, BPA, TR 186-187. While there was limited discussion of fish spill amounts on the record, TR 184, PPC noted that the interim fish spill amendment proposed

by the Northwest Power Planning Council was rejected. Opening Brief, PPC, B-PP-01, 10. BPA uses the most current hydro operating restrictions, including fish flow logic, in calculating the capacity surplus. Baldrice, BPA, TR 184. Estimating possible future system constraints from fish spill would not only require speculation, but it is possible that overall changes in current restrictions could lead to an increase in the projected capacity surplus. Id.; Carr, BPA, E-BPA-02RS, 11. Finally, the duration of the assumed sustained peak has been discussed above.

It is highly unlikely that the events advocated by PPC and APAC would occur simultaneously. Id., 14. Yet, in order for PPC's conclusions regarding negative surpluses of capacity to be valid, all three adjustments proposed by PPC must so occur. Id. The adjustments proposed by APAC and PPC are overly conservative and would result in a decision not to sell available surplus capacity that would provide needed revenues to BPA. Id. These adjustments would lead to foregone revenues from potential long-term capacity sales that would have to be recovered, at least in part, from BPA's PNW customers. Id.

PP&L contends that the BPA capacity surplus should assume the renewal of 7(b), 7(c), and 7(f) contracts. Hammerquist, PP&L, E-PL-01, 4. The capacity study assumes that BPA's contracts will be renewed with its preference and DSI customers, which otherwise expire on June 30, 2001. See E-BPA-09, TA-14 and TA-16 (lines 4-6, 10-11). The capacity study projects the capacity surplus assuming 100 percent IOU obligations (which would be served from the 7(f) rate pool), as shown in the 20 Year Monthly Peak Summary. E-BPA-09, TA-29.

Decision

BPA's estimate that 2000 megawatts of surplus capacity are available to market for 20 years is reasonable and conservative. The parties' proposed adjustments to assumptions used in the capacity study are overly conservative and could result in the failure to sell available surplus capacity. This could result in foregone revenues to BPA which are needed to meet BPA's financial obligations.

B. Matching Load Factor and Shape

Issue

How closely should the load factor and shape of an FD sale match the load factor and shape of the PNW-PSW sale?

Summary of Positions

APAC states that the FD rate schedule should include provisions to assure that the load factor of the FD sale "precisely matches" the load factor of the sale from the PNW utility to the PSW in order to prevent erosion of BPA sales at the SP and NR rates and undue access to the PNW-PSW Intertie by FD purchasers. Opening Brief, APAC, B-PA-01, 11-12; Cook, APAC, E-PA-01, 35, 38.

PPC warns that the FD rate could interfere with BPA's ability to make profitable short-term sales. Opening Brief, PPC, B-PP-01, 18. PPC describes three "problems": the FD purchaser's ability to gain undue access to the Intertie; to move capacity between seasons or times of day; and to trade energy for capacity. Wolverton and Drummond, PPC, E-PP-01, 20-22; Opening Brief, PPC, B-PP-01, 18-19.

BPA considers the load factor and shaping issue as appropriately addressed in the contract development process. The draft FD contract principles state that the sale of FD power to a PNW purchaser "shall match on an hour to hour basis" the PNW displaced resources sold to the PSW. Carr, BPA, E-BPA-02RS, 3.

Evaluation of Positions

PPC contends that FD sales could cause BPA to lose short-term surplus firm power or nonfirm energy sales. BPA's revenues could decrease and rates to BPA's customers could increase. Opening Brief, PPC, B-PP-01, 18-19; Wolverton and Drummond, PPC, E-PP-01, 22-23. It is clear, however, that BPA's goal during the FD contract development process has been that the sale of BPA's surplus firm power under the FD rate schedule should enhance, not interfere with, BPA's power marketing program. Carr, BPA, E-BPA-01, 4; E-BPA-02RS, 3; TR 210, 211, 247; Cook, APAC, E-PA-02R, 7. In fact, BPA's foremost objective is to maintain its revenues. Carr, BPA, TR 247. PPC argues that at times "BPA can get a higher rate in the short-term market than through the FD sale." Opening Brief, PPC, B-PP-01, 19. This situation has not occurred historically and BPA cannot prudently assume that it would occur in the future. To the contrary, long-term sales such as under the FD rate schedule would allow for more stable BPA rates and higher revenues. Carr, BPA, E-BPA-02R, 2-6, 7-8; TR 178, 223, 230-233, 269, 293-294.

APAC and PPC are concerned that PNW purchasers of FD power would be able to profit at BPA's expense from their sale to the PSW by changing the load factor or shape of the FD purchase using their own surplus resources. Cook, APAC, E-PA-01, 33-34; Wolverton and Drummond, PPC, E-PP-01, 22. APAC fears that FD power could be used to serve PNW loads. Opening Brief, APAC, B-PA-01, 12. The FD rate schedule states that FD power must be used to displace the purchaser's resource(s) that had been planned to serve the purchaser's regional loads. The PNW purchaser would then sell its own generation resources to the PSW. Carr, BPA, E-BPA-01, 3; Attachment 1, 1; E-BPA-02R, 9; TR 247-248. BPA's FD rate proposal makes no assumptions regarding the correspondence between the shape of the FD sale and the shape of the generation of the resource(s) being displaced. The issue of shaping is properly a matter for contract negotiation. Carr, BPA, TR 192-195, 200, 205-206, 213; E-BPA-02RS, 3. BPA's FD rate proposal states only that "(t)he amount of Firm Displacement power purchased may not exceed the planned output of resources exported from the region." Carr, BPA, E-BPA-01, 5. The issue of matching load factors is being addressed in BPA's public involvement proceedings for the development of FD power sales contracts. Carr, BPA, E-BPA-02RS, 3.

APAC admits that BPA designed the proposed FD rate to protect BPA's PNW sales, but is concerned that the sales to the PSW enabled by FD purchases could erode BPA's extraregional sales. Opening Brief, APAC, B-PA-01, 12-15. It is clear, however, that the FD purchaser could be making sales of its surplus to the Southwest "with or without an FD arrangement." Carr, BPA, TR 248. See also Carr, BPA, TR 394. The FD rate schedule thus cannot restrict the shape of the PNW-PSW sale; even the draft FD contract principles address only the matching of the shape of FD sales with the PNW purchaser's displaced resource(s). Carr, BPA, E-BPA-02RS, 3.

BPA's rate schedules are not designed to shape demand or to change a purchaser's load factor. BPA's cost classification reflects the pattern of cost incurrence and provides economically correct price signals, but has no systematic relationship to load factor. 1985 Administrator's Record of Decision, WP-85-A-02, 35-36. Operational aspects such as load shaping of firm power sales are more properly resolved in contract negotiations with each particular purchaser.

The issue of Intertie access is addressed in section IV.G.

Decision

The issue of conforming the load factor and shape of BPA's sale of FD power to the shape of the utility's displaced resource(s) will not be addressed in the FD rate schedule. The issue of shaping is a matter for contract negotiation. The proposed FD rate schedule contains sufficient provisions to protect BPA's revenues.

C. Availability Charge

Issue

How will the purchase of FD power affect the availability charge of a computed requirements customer?

Summary of Positions

APAC claims that a computed requirements customer would face a higher availability charge if it were to purchase FD power. APAC recommends that either: (1) the resource(s) displaced by the FD purchase should not be removed from the purchaser's firm resource exhibit to its power sales contract; or (2) the availability charge should be eliminated for computed requirements customers "who desire to enter into an FD transaction." Cook, APAC, E-PA-01, 42-43.

A purchase of FD power would not affect a computed requirements customer's availability charge. Carr, BPA, E-BPA-02RS, 2.

PP&L urges, in the context of the availability charge discussion in the Draft ROD, that the issue of hour-by-hour matching should not be resolved in this section 7(i) proceeding. Reply Brief, PP&L, E-PL-04, 9-10.

Evaluation of Positions and Decision

APAC's concern is that the resource(s) displaced by the FD purchase would be removed from the purchaser's Firm Resource Exhibit, thus increasing the FD purchaser's computed requirements on BPA and, as a result, its availability charge. Cook, APAC, E-PA-01, 42. APAC failed to consider two points. First, computed requirements are the calculated difference between a purchaser's regional load and its firm resource capability. Sales outside of the region, such as the sale of the output of resources displaced by an FD purchase, have no effect on the calculation of computed requirements. Carr, BPA, E-BPA-02RS, 2. Second, APAC fails to recognize that the FD purchase would replace the resource removed from the Firm Resource Exhibit.

Since a purchase of FD power would match the displaced resource(s), there would be no difference in determining computed requirements and thus the availability charge from a generating resource. Carr, BPA, E-BPA-02RS, 2. No adjustment is required by the presence of the availability charge. APAC states that it is satisfied with BPA's explanation and no longer is concerned about computed requirements customers' availability charge. Reply Brief, APAC, R-PA-01, 12-13.

PP&L is concerned that the reference to matching in BPA's supplemental rebuttal testimony cited above (Carr, BPA, E-BPA-02RS, 2) could imply that BPA would require "hour-by-hour matching of the FD sale with the purchasing utility's sale to the Southwest." Reply Brief, PP&L, E-PL-04, 9. PP&L states that the matching issue is a matter to be addressed in the contract negotiation process, not in this section 7(i) proceeding. Id., 10. PP&L is correct. Carr, BPA, E-BPA-02RS, 3. See also section B, above.

D. Reservation of Power for Future Sales

Issue

Should BPA reserve an amount of power for the City of Vernon until Vernon obtains transmission access to the Pacific Northwest?

Summary of Positions

Vernon argues that BPA should reserve a portion of its projected surplus firm power for entities such as Vernon that are presently unable to take delivery of power from Pacific Northwest suppliers. Vernon suggests four methods of reserving such power. Vernon also alleges that the public body preference applies to FD sales. Opening Brief, Vernon, B-VC-01, 9, 17; Russell, Vernon, E-VC-01, 6-7, 11; Reply Brief, Vernon, R-VC-01, 28.

BPA states that establishment of the FD rate does not require BPA to sell any power and does not establish quantities of power to be sold under the FD or other rate schedules. Sales of power or reservations of power must be negotiated and established by contract, not ratemaking. Reservation of an amount of power in a rate proceeding is impractical and inappropriate. Carr, BPA, E-BPA-02RS, 3-5.

Evaluation of Positions

Vernon argues that BPA should reserve power for Vernon until Vernon gains transmission access to the Pacific Northwest. Russell, Vernon, E-VC-01, 6-7. The purpose of this ratemaking proceeding, however, is to develop an FD rate. Carr, BPA, E-BPA-02RS, 3. The establishment of a rate schedule does not require BPA to sell any power under that rate schedule. Id. The establishment of a rate also does not establish the quantities of power that will be sold at that rate or pursuant to other rate schedules. Id. BPA's rate schedules historically have established the prices for power sales, but have themselves never reserved amounts of power for immediate or future sales. Id., 3-4. Sales of power must be negotiated and established by contract. Id., 4. Sales are not established by ratemaking. Id. Vernon has failed to demonstrate how reserving power for future purchase would affect the price of FD power. Id. Furthermore, Vernon's request is actually a request for a reservation of power for a future bilateral sale from BPA to Vernon. This is not appropriately addressed in a proceeding to establish a rate for FD sales, which would be sales of power to PNW purchasers.

Vernon argues that rates and the conditions on which sales are made should be established at the same time. Opening Brief, Vernon, B-VC-01, 21. Vernon fails to distinguish between rates and contracts. If Vernon's position were correct, there would be only rates or contracts, as each would subsume the other. This, however, is not what Congress intended. Congress established different statutory provisions and procedural requirements for contracts and rates. See CEC v. Johnson, No. 81-7809 (9th Cir. February 24, 1986), slip op. at 15. Furthermore, BPA is attempting to establish the rates and conditions for FD sales at the same time. The FD rate is being established in a ratemaking proceeding and the terms and conditions of FD contracts are being developed in separate but simultaneous public involvement proceedings. Vernon has been a participant in both proceedings.

If power were reserved for Vernon, BPA would incur a cost for such a reservation. Carr, BPA, E-BPA-02RS, 4. Any reserved power would have to be sold in the meantime in the surplus power spot market until Vernon's access to the Intertie, if any, is determined. Id. This power would be sold at rates lower than FD by 3.8 to 9.6 mills per kilowatthour (the SP rate) or more (the NF rate). Id. Vernon argues that BPA has indicated that it does not expect to sell all of its surplus firm power at the FD rate, so a reservation for Vernon would not affect FD sales unless all surplus were slated to be sold under that rate schedule. Opening Brief, Vernon, B-VC-01, 22. However, Vernon itself suggested that BPA reserve an amount of surplus power "which it is making available for marketing under Schedule FD-85." (Emphasis added.)

Russell, Vernon, E-VC-01, 6. Thus, if BPA reserved power it would have sold under FD-85, the noted losses would occur. Even assuming, however, that BPA reserved other surplus power, any reserved power would have to be sold in the volatile spot market for an extended period of time. This would likely result in a similar underrecovery of costs. Carr, BPA, E-BPA-02R, 2-4. In addition, Vernon's argument proves too much. If, as Vernon suggests, BPA will not sell all its surplus power under the FD rate schedule, then the question arises whether Vernon actually requires a reservation of power. The need for a reservation of power would only arise where BPA's surplus was extremely small.

Vernon suggests that BPA should establish a callback provision governing FD sales. Opening Brief, Vernon, B-VC-01, 19. Callback provisions are being discussed in a separate BPA proceeding for development of FD contract principles. Callback provisions are properly established by contract, not by ratemaking. However, BPA testimony established that if BPA were to sell FD power with a callback provision to provide power for Pacific Southwest utilities that eventually may gain intertie access, the FD power would be a lower valued product. Carr, BPA, E-BPA-02RS, 4. A potential purchasing utility would be willing to pay a lower price because capital deferral benefits would be decreased. Id. This would result in a loss of revenue to BPA. Id.

Vernon argues that the law requires BPA to include callback provisions. Opening Brief, Vernon, B-VC-01, 22. Vernon also argues that callback provisions for Vernon alone would be so insignificant as to be unlikely to affect the marketability of BPA power. Id. However, callback provisions are properly established by contract, not by ratemaking. Furthermore, Vernon's legal analysis is incorrect. See section IV.I. Vernon has no preference to power whatsoever until there is "no market in the Pacific Northwest at any rate established for the disposition of such energy ... [or] capacity." 16 U.S.C. 839f(c). The very fact that a Pacific Northwest purchaser would buy FD power from BPA establishes that there is a market for such power in the Pacific Northwest and eliminates Vernon's alleged "preference" to any such power. The sale of FD power is not a pass-through sale to the Pacific Southwest. Further, the allegation that Vernon's individual request for power is so small that it will not affect the marketability of BPA power misses the point. If Vernon's arguments were applied to all utilities which allegedly might gain transmission access to the Pacific Northwest at some uncertain future date, the callback provisions would significantly reduce the value of FD power. See Carr, BPA, E-BPA-02RS, 4.

Vernon alleges that public body preference applies to sales made under the FD program. Reply Brief, Vernon, R-VC-01, 28. FD sales will be offered first to Pacific Northwest preference customers and then to Pacific Northwest non-preference customers. This is consistent with public preference. Vernon argues at great length regarding an alleged public preference to Federal power despite statutory provisions establishing preference for Pacific Northwest power purchasers. Reply Brief, Vernon, R-VC-01, 28-44. This argument is incorrect and misplaced. See section IV.I. Issues of preference arise only when there is a sale of power. Until there is a sale of power, there can be

no violation of preference. Establishment of a rate for power sales does not create such sales.

Vernon alleges that BPA must consider the effects of its actions on competition and condition the FD program to ensure that Vernon is able to compete for BPA surplus power when it obtains transmission. Reply Brief, Vernon, R-VC-01, 26. The FD rate proceeding, like other BPA rate proceedings, establishes a rate for power sales. The FD rate, like other BPA rates, does not establish the contractual terms and conditions of power sales or the amounts of power to be sold. Vernon has not demonstrated that the price for FD power should be changed to reflect its concerns regarding competition. In fact, Vernon seeks only to have a block of power reserved for its future purchase. Vernon's concern is one of power supply, not ratemaking. There is no evidence in the record to support an allegation that the FD rate is anticompetitive. Cf. Department of Water and Power v. BPA, 759 F.2d 684 (9th Cir. 1984). Vernon's allegations address only power sales.

It is inappropriate and impractical to reserve power by establishing a rate schedule. Carr, BPA, E-BPA-02RS, 5. Each party to a rate proceeding could allege that it should be reserved an amount of power. Yet, establishment of a rate does not guarantee that a party must purchase or BPA must sell power at the rate. Only a contractual agreement can guarantee performance by the involved parties. Id. It is obviously administratively infeasible for all contractual terms and conditions of every potential sale of power under a given rate schedule to be established in a proceeding designed to develop a rate. Id. It would also be improper for BPA to attempt to reserve power for Vernon when the FD rate proceeding was not represented to be a forum for the allocation of BPA's surplus firm power. It is likely that other parties interested in purchasing BPA's surplus firm power did not become parties in the FD rate proceeding because it could not reasonably be anticipated that BPA would allocate surplus firm power in that forum.

Vernon alleges that the Draft ROD indicates that BPA does not intend to reserve power for Vernon. Reply Brief, Vernon, R-VC-01, 28. This is incorrect. BPA takes no position at this time regarding whether power should be reserved for Vernon. This issue is not properly resolved in a ratemaking proceeding.

Decision

Whether an amount of power should be reserved for future purchase by Vernon is not a ratemaking issue and will not be decided in this forum.

E. Delivery and Return of Peaking Capacity

Issue

Should provisions regarding delivery of peaking capacity and return of energy be incorporated in the FD rate schedule?

Summary of Positions

APAC states that "the FD rate schedule should allow BPA to avoid cost incurrence related to energy return and sustained peaking." Opening Brief, APAC, B-PA-01, 23. To this end, APAC proposes that the rate schedule should include six provisions: (1) delivery of firm capacity cannot exceed the contract demand in any hour; (2) BPA will deliver firm capacity for up to 8 hours each day; (3) firm capacity may not be scheduled for longer than 8 hours without incurring an extended peaking surcharge; (4) the FD purchaser will return replacement energy within 7 days at a return rate not to exceed 60 percent of the contract demand; (5) replacement energy may not be returned at a rate exceeding 60 percent of the contract demand without incurring a rate of return surcharge; and (6) BPA will have the right to delay return of replacement energy during the months of July-November. Cook, APAC, E-PA-01, 24, 38; Opening Brief, APAC, B-PA-01, 24. APAC also states that "the public preference right to BPA nonfirm energy can be circumvented by PNW IOUs who enter into FD contracts." This would be accomplished, APAC claims, by the IOUs paying for rather than returning the energy that accompanies the delivery of naked capacity. Cook, APAC, E-PA-01, 39-40.

PPC states that "return restrictions should be carefully crafted." Wolverton and Drummond, PPC, E-PP-01, 19.

BPA has proposed in the draft FD contract principles delivery and return provisions similar to those proposed by APAC. BPA believes that such issues are properly addressed in the contract development process rather than in this proceeding. Carr, BPA, E-BPA-02RS, 6.

Evaluation of Positions

The proposed FD rate schedule includes provisions for surcharges for firm capacity taken at full contract demand for more than 8 hours, and replacement energy returned at greater than 60 percent of contract demand. Carr, BPA, E-BPA-02RS, 5; Attachment 1. The proposed surcharge provisions (see Section III.F.) discourage the conditions of delivery and return that APAC contends should be prohibited by provisions in the rate schedule. In addition, the surcharges would allow for economic sanctions if the specified conditions were exceeded. Carr, BPA, E-BPA-02RS, 5-6. BPA's other rate schedules provide that surcharges may be applied if specified delivery or return conditions are exceeded. Carr, BPA, E-BPA-02R, 17. BPA's rate schedules do not include delivery or return provisions; BPA's contracts contain such provisions. Delivery and return provisions are matters for negotiation and are properly addressed in the contract development process. BPA has already proposed delivery and return provisions in the draft FD contract principles which are similar to those proposed by APAC. Carr, BPA, E-BPA-02RS, 6.

APAC contends that the public preference to BPA nonfirm energy can be circumvented by PNW investor-owned utilities. Cook, APAC, E-PA-01, 39-40. The implications of the situation that APAC posits, wherein a PNW IOU would be

able to purchase, rather than return, the energy delivered with a firm capacity contract, cannot be inferred from APAC's example. See Cook, APAC, E-PA-01, 39-40. BPA's policy is to make nonfirm energy available at a particular price. If PNW preference customers desire to buy the nonfirm energy at that price, they have priority over IOUs to do so. If preference customers are unable or unwilling to purchase nonfirm energy at the available price, the IOUs would then have the option to purchase energy to satisfy their obligations or to make the energy returns.

Decision

The proposed FD rate schedule does not include provisions regarding delivery of peaking capacity and return of energy. Those provisions are properly addressed in the development of FD contract principles and through the rate schedule surcharge.

F. Term of Contract

Issue #1

Should the expiration date of the FD contracts be the same as that of the power sales contracts with regional entities?

Summary of Positions

BPA has proposed in the FD contract forum that FD contracts be offered for a term up to 20 years. Carr, BPA, E-BPA-01, 5; E-BPA-02RS, 7; TR 150. The proposed contract principles include a provision to recall capacity on 5 years notice to serve PNW preference agency loads. Carr, BPA, TR 279-280.

The DSIs advocate a maximum 15 year term for the FD power sales contracts. Opening Brief, DSI, B-DS-01, 4; Reply Brief, DSI, B-DS-02, 1. This would assure that FD contracts would "terminate on a date no later than the expiration date of the Power Sales Agreements" that BPA has with regional utilities and DSIs. Young, DSI, E-DS-01, 4.

The DSIs and PP&L suggest including a 5 year recall provision in the rate schedule or contract provisions to protect all firm PNW loads and the renewal or renegotiation of regional firm power sales contracts. Opening Brief, DSI, B-DS-01, 4; Reply Brief, DSI, B-DS-02, 2; Hammerquist, PP&L, TR 449-450; Opening Brief, PP&L, B-PL-01, 9-10.

APAC proposes that the term of the FD contracts be 15 years, with a review point 10 years prior to termination and a potential 5 year extension of the contract term if agreed upon 5 years prior to the original termination date. Cook, APAC, E-PA-01, 28-29. APAC argues that a more conservative approach to forecasting the availability of surplus firm capacity than BPA uses supports a contract term of 15 years. Reply Brief, APAC, R-PA-01, 8.

Evaluation of Positions

The term of the contracts to be offered for sales of FD power, and the possibility of callback provisions, are matters for negotiation by BPA and the FD purchaser. They are not issues to be considered in this 7(i) proceeding. Carr, BPA, E-BPA-02RS, 6-7.

The DSIs are concerned that FD sales made for 20 years could jeopardize the renewal of the regional firm power sales contracts currently in effect. To preclude such an occurrence, the DSIs state that BPA should offer FD contracts that would terminate no later than the current power sales contracts, and provide for a 5-year notice of recall of capacity needed to serve PNW firm power sales contracts. Young, DSI, E-DS-01, 4; Opening Brief, DSI, B-DS-01, 4. The DSIs' reply brief states that a contract term ending in the year 2001 or a callback provision to protect all regional firm loads is necessary. Reply Brief, DSI, B-DS-02, 2. PP&L agrees with BPA's proposed 20 year contract term, but supports a 5 year callback provision to protect PNW loads. Opening Brief, PP&L, B-PL-01, 9-10.

Sales of power at the FD rate would be sales of surplus firm energy and capacity. Carr, BPA, E-BPA-01, 3-4; E-BPA-02R, 9; TR 208. If no surplus power were available, therefore, sales would not be made under the FD rate schedule. See section III.C. on energy escalators and determining delivery of energy. See also section IV.A, Availability of Surplus. It is conceivable that BPA's surplus firm power could run out prior to the termination date of an FD contract. This possibility is remote, however, in light of BPA's conservative capacity forecast. The risk can be reduced further by conservative marketing. The remedy to this potential situation, since it could involve BPA's responsibility to supply power to an FD purchaser pursuant to the BPA-PNW utility contract, would necessarily be a matter for negotiation. Carr, BPA, TR 208-209.

BPA assumes in its forecasts that existing regional firm power sales contracts are renewed or renegotiated. Reply Brief, DSI, B-DS-02, 2. See also section IV.A. The DSIs state that even with BPA's implied assurances of "renewal of Regional Act contracts, . . . [a] provision ensuring this [renewal] should be included in the FD rate schedule or contracts." Reply Brief, DSI, B-DS-02, 2-3. Such a provision is not appropriately included in a rate schedule, however, but is addressed in contract negotiations. Carr, BPA, TR 208-209.

The DSIs claim that "the Administrator ruled that FD contracts would be offered for terms up to 20 years. Draft ROD, page 55." This is incorrect. The FD rate schedule will be offered for contracts of up to 20 years in order to enhance the marketability of FD power. Id. The effective term of the contracts will be negotiated in the contract development process. Id.

A 20-year firm contract term would allow PNW FD purchasers to offer contract terms that would be attractive to potential PSW purchasers. For example, a 20-year firm power contract could allow a PSW utility to defer or

avoid resource construction or refurbishment. Carr, BPA, E-BPA-02R, 5; E-BPA-02RS, 8. A 15-year term would not have the same value to the PSW utility. Carr, BPA, E-BPA-02RS, 8. Including a 5-year recall provision for PNW public preference customers in the contract would adequately protect BPA's regional preference load and future renewal or renegotiation of existing power sales contracts. Opening Brief, PP&L, B-PL-01, 9-10. The possible inclusion in the contract of a 5-year recall provision to protect all PNW firm loads has been discussed in the contract development process.

In support of its proposal of contract term, APAC relies on a document dated July 20, 1983, released by the Pacific Northwest Utilities Conference Committee (PNUCC) entitled, "Principles for Negotiation of Surplus Firm Power Contracts Between Pacific Northwest And California Utilities." This document, according to APAC, "sets forth" the position APAC has adopted in this FD rate proceeding. Cook, APAC, E-PA-01, 28. The applicability of PNUCC's draft Principles for PNW-PSW sales to an FD transaction is not addressed by APAC. Cook, APAC, E-PA-01, 28-29. The FD transaction is a regional, not an extraregional, sale. Carr, BPA, E-BPA-01, 3, 5, 6.

APAC alleges that BPA should rely on the draft PNUCC Principles to determine the term of the FD contract. Opening Brief, APAC, B-PA-01, 23; Cook, APAC, E-PA-01, 28. APAC claims that "the Administrator directed his staff to use [the Principles] as the foundation for developing the FD program That document calls for a term up to 15 years." Opening Brief, APAC, B-PA-01, 23. (Emphasis added.) In fact, a careful reading of APAC's own exhibit shows that APAC has misstated both the Principles and BPA's reliance on them. See Cook, APAC, E-PA-03, 10. In a February 29, 1984, letter to BPA customers, the Acting Administrator stated that "it will be those offers to sell for at least 15 years which will be most useful in putting together a long-term sale California utilities are interested in firm sales for a minimum of 15 years." Cook, APAC, E-PA-03, 10. (Emphasis added.) The Acting Administrator noted that "[a]s negotiations develop, changes in the initial information may be required." *Id.* As BPA's witness testified, the PNUCC Principles did not dictate BPA's position regarding contract term in its marketing effort, but merely provided "some input or set the stage . . . for some of the preliminary work on the marketing effort, which BPA then . . . took over on its own in early 1984." Carr, BPA, TR 257.

The APAC proposal would provide for termination of the contract after as little as 10 years. Cook, APAC, E-PA-01, 28-29. This suggestion is in response to APAC's concern that BPA estimate the amount of available surplus firm power conservatively, in order to protect BPA's customers, and include a 5-year callback provision in the FD sale. Cook, APAC, E-PA-01, 6, 9; E-PA-02R, 1. APAC states that if BPA has surplus capacity available after the 15 year contract term, the capacity could be sold "on a shorter-term basis." Reply Brief, APAC, R-PA-01, 8. The advantages of a long-term sale over short-term sales, which APAC does not recognize, are addressed in Chapter II. That is, long-term sales would provide rate stability to purchasers and enhance cost recovery and revenue stability to BPA.

APAC states that because the load forecasts prepared by regional entities other than BPA predict deficits "prior to the end of the proposed twenty-year term, . . . BPA should shorten the FD rate term to fifteen years." Reply Brief, APAC, R-PA-01, 8. As discussed in section IV.A., however, the difference in the projections of deficit by the load forecasts is due to BPA's forecast assuming that generic resources would be acquired to meet the deficit. See section IV.A. BPA's forecasts of the availability of its surplus firm power are reasonable and conservative. Carr, BPA, E-BPA-02RS, 9-15. The proposed FD rate was designed to consider the availability of surplus firm power. Carr, BPA, E-BPA-02RS, 7. Reducing the term of assured availability of FD power, as APAC proposes, would lower the value of that power to the purchaser, and, similarly, to the PSW utility that would buy the output of the PNW resource(s) displaced by the FD purchase. Carr, BPA, E-BPA-02RS, 8; TR 155, 234-235, 241.

Decision

The FD rate schedule will be offered for contracts of up to 20 years in order to enhance the marketability of FD power. The effective term of the contracts will be negotiated in the contract development process.

G. Intertie Access Policy

Issue

Should conditions of long term intertie access be resolved in the FD rate schedule?

Summary of Positions

APAC alleges that a load factor mismatch could give an FD purchaser greater intertie rights than warranted by the FD purchase. Opening Brief, APAC, B-PA-01, 11. APAC alleges that this could impair BPA's ability to market its own surplus firm power and nonfirm energy. *Id.*, 12. APAC states that this problem could occur if an FD purchaser receives FD-related intertie access, in an amount up to its FD capacity, for more hours than necessary to deliver an amount equal to its FD energy purchase. *Id.* APAC urges that, even though intertie access cannot be granted in this proceeding, it should be limited for FD purchasers to the amount of FD power purchased (emphasis in original). Reply Brief, APAC, R-PA-01, 7.

Similarly, PPC alleges that load factor "gameplaying" may result when an FD purchaser buys FD at a lower load factor, gains intertie access in the amount of the capacity purchase, augments the energy portion of the sale with its own energy, and sells the higher load factor power to the Pacific Southwest using the intertie capacity gained through the low load factor FD purchase. Opening Brief, PPC, B-PP-01, 18-19. PPC alleges that BPA would lose nonfirm sales revenues and high load factor benefits. PPC also alleges that FD sales could erode the quality of power in the short-term markets,

lower the price at which SP power could be sold, and affect the sales of nonfirm energy to CF capacity purchasers. Id. PPC also alleges that an FD purchase affords the purchaser firm intertie access. Id., 24.

Seattle City Light argues that priority for FD sales on the intertie could result in displacement of nonfirm energy sales of non-thermal utilities. Nelson, SCL, E-SL-02A, 5-6.

Issues related to intertie access are not ratemaking issues. Carr, BPA, E-BPA-02RS, 9. BPA also states that issues related to intertie access will be determined through a separate process to develop the Long Term Intertie Access Policy. Id.

Evaluation of Positions

The parties have raised issues of intertie access and load factor gameplaying. Load factor issues have been addressed at section IV.B. Issues of intertie access cannot be resolved in a ratemaking proceeding. There is no evidence in the record which demonstrates that issues of intertie access would affect the calculation of the FD rate schedule charges. See Carr, BPA, E-BPA-02RS, 8-9. No proposed changes in the FD rate level based upon intertie access conditions have been suggested by the parties.

BPA resolves issues of intertie access in the development of its intertie access policy. BPA's first intertie access policy, an interim policy, was established in 1984. See 49 FR 44,232 (November 5, 1984). This policy was affirmed by the U.S. Court of Appeals for the Ninth Circuit in Los Angeles Dept. of Water Power v. Bonneville Power Administration, 759 F.2d 684 (1985). BPA then established the Near Term Intertie Access Policy presently in effect. See 50 FR 26,827 (June 28, 1985). BPA is currently conducting a public involvement process for development of a Long Term Intertie Access Policy. On March 11, 1986, BPA issued a "Discussion Paper of Major Issues in the Development of the Draft Long Term Intertie Access Policy." This discussion paper addresses issues of assured delivery access for export contracts resulting from sale of FD power. Copies of this paper are available from BPA's Public Involvement Office. Issues regarding intertie access are properly raised in this separate forum.

The Federal Energy Regulatory Commission has held that the development of an Intertie Access Policy does not constitute ratemaking, and therefore is not properly addressed in a section 7(i) ratemaking proceeding. See Order Denying Petition For Declaratory Relief, Docket No. EL85-6-000. The Commission noted that "the Northwest Parties [including APAC, PPC and SCL] allege that the IAP is not a BPA rate action within the Commission's jurisdiction to review ..." Order at 2. Thus, the parties themselves have admitted that the intertie access issues they attempt to raise are not ratemaking issues.

Decision

The FD rate establishes a price for sales of FD power. It does not define the amount of power to be granted intertie access. Matters related to intertie access are being addressed in the development of BPA's Long Term Intertie Access Policy.

H. Average System Cost

Issue

Should future average system cost treatment of FD transactions be resolved in the FD rate schedule?

Summary of Positions

APAC implies that ASC treatment of an FD transaction should be resolved in establishing the FD rate. APAC states that an FD purchase should never result in an increase in a purchaser's average system cost. APAC suggests that a utility should include the costs of its displaced resources and include a debit for the FD purchase and a credit for the FD sale. Opening Brief, APAC, B-PA-01, 26-27; Cook, APAC, E-PA-01, 41.

PGE states that the risk of adverse ASC treatment reduces the potential benefits of an FD transaction. PGE suggests that BPA establish administrative rules on which potential Northwest FD purchasers could rely. PGE suggests that the net margins earned by a Northwest utility should be credited to the ASC revenue requirements of an exchanging utility. Opening Brief, PGE, B-GE-01, 6; Kellerman and McCullough, PGE, E-GE-01, 8.

PPC states that if an FD purchaser loses money on a sale outside the region, the ASC of the utility could increase. PPC alleges that the increase would be passed on to BPA's other ratepayers. However, PPC states that the issue of proper ASC treatment can be resolved in individual ASC determinations. Opening Brief, PPC, B-PP-01, 18.

PP&L states that BPA should interpret the ASC methodology in the ROD, or, alternatively, BPA should not limit the resolution of ASC issues to individual ASC determinations. Reply Brief, PP&L, R-PL-01, 5-9.

Evaluation of Positions

The residential exchange program was established by the Pacific Northwest Power Act, 16 U.S.C. §839c(c). Whenever a Pacific Northwest electric utility offers to sell electric power to the Administrator at the average system cost of that utility's resources in each year, the Administrator acquires such power by purchase and exchanges an equivalent amount of power to the utility for resale to the utility's residential users within the Pacific Northwest. Id. Under the Act, ASC determinations are made by the BPA Administrator on the basis of a methodology he develops for that purpose. 16 U.S.C. §839c(c)(7). The filing utility submits its proposed ASC to the Administrator

at the beginning of the residential exchange program and thereafter each time it files a change in its retail rates. BPA reviews the utility's filing and issues a determination of the utility's ASC in a report addressing the issues raised before the Administrator. The Administrator's ASC determinations for IOUs are then reviewed by the Federal Energy Regulatory Commission. 16 U.S.C. §839f(g).

It is clear that there is a statutory and administrative process separate from this section 7(i) proceeding for the determination of average system cost. Also, determinations of ASC are extremely complex. It is inappropriate to establish ASC treatment in a wholesale power rate proceeding. Such issues can be addressed in other forums and also in individual ASC determinations. When an FD issue is raised before the Administrator in an individual ASC determination, all parties will have a full opportunity to present their arguments regarding appropriate treatment. Following the Administrator's determination, the parties will have the opportunity to present their arguments before the Federal Energy Regulatory Commission. 16 U.S.C. §839f(g). Following review by FERC, the parties may seek judicial review before the U.S. Court of Appeals for the Ninth Circuit. 16 U.S.C. §839f(e).

Decision

Determinations of ASC are not properly made in BPA wholesale power ratemaking proceedings. ASC treatment for FD purchases can be resolved in other forums and will be reflected in individual ASC determinations.

I. Regional Preference

Issue

Is the FD rate schedule consistent with the regional preference requirements of the Pacific Northwest Power Act and the Pacific Northwest Regional Preference Act?

Summary of Positions

A number of parties question whether the FD rate schedule is consistent with the regional preference requirements of the Pacific Northwest Power Act and the Pacific Northwest Regional Preference Act. Opening Brief, SCL, B-SL-01, 3-11; Reply Brief, SCL, R-SL-01, 1-10; Opening Brief, APAC, B-PA-01, 3-4; Reply Brief, APAC, R-PA-01, 4-5; Opening Brief, PPC, B-PP-01, 12-14; Reply Brief, PPC, R-PP-01, 8-11.

Evaluation of Positions

Regional preference issues do not arise unless and until an actual sale of power is made. See, e.g., 16 U.S.C. § 839f(c) ("[a]ny contract of the Administrator for the sale or exchange of electric power . . .")(emphasis

added). Establishment of a rate schedule does not constitute a sale of electric power. While regional preference issues do not become ripe until a contractual sale of power is consummated, BPA will respond briefly to regional preference arguments raised by the parties. This discussion does not imply that regional preference issues are properly raised in challenges to the FD rate.

The most lengthy discussion of regional preference is found in the opening and reply briefs of the City of Seattle. Opening Brief, SCL, B-SL-01, 3-11; Reply Brief, SCL, R-SL-01, 1-10. Except as noted infra, issues raised by other parties are subsumed in the points raised in SCL's briefs. SCL's basic argument is as follows. The Regional Preference Act forbids the "replacement" either directly or indirectly of Pacific Northwest hydroelectric power to a non-federal utility for export out of the region. Section 9(c) of the Pacific Northwest Power Act limits the sale of all BPA power to the same limitations and conditions that correspond to a sale of surplus hydroelectric power under the Regional Preference Act. Therefore, this limitation applies to the replacement, directly or indirectly, of electric power to a non-federal utility for export outside the region. Opening Brief, Seattle, B-SL-01, 9. While this simplistic argument has appeal at first blush, it collapses upon review of the statutory language.

The Pacific Northwest Regional Preference Act (Regional Preference Act) establishes certain restrictions on BPA sales of hydroelectric power outside the Pacific Northwest region. 16 U.S.C. § 837a, 837b. The Act provides:

SEC. 2. Subject to the provisions of this Act, the sale, delivery, and exchange of electric energy generated at, and peaking capacity of, Federal hydroelectric plants in the Pacific Northwest for use outside the Pacific Northwest shall be limited to surplus energy and surplus peaking capacity. At least 30 days prior to the execution of any contract for the sale, delivery, or exchange of surplus energy or surplus peaking capacity for use outside the Pacific Northwest, the Secretary shall give the then customers of the Bonneville Power Administration written notice that negotiations for such a contract are pending, and thereafter, at any customer's request, make available for its inspection current drafts of the proposed contract.

SEC. 3. (a) Any contract for the sale or exchange of surplus energy for use outside the Pacific Northwest, or as replacement, directly or indirectly, within the Pacific Northwest for hydroelectric energy delivered for use outside that region by a non-Federal utility, shall provide that the Secretary, after giving the purchaser notice not in excess of sixty days, will not deliver electric energy under such contract whenever it can reasonably be foreseen that such delivery would impair his ability to meet, either at or after the time of such delivery, the energy requirements of any Pacific Northwest customer

Regional preference is also addressed in the Pacific Northwest Power Act. Section 9(c), 16 U.S.C. § 839f(c), provides:

Any contract of the Administrator for the sale or exchange of electric power for use outside the Pacific Northwest shall be subject to limitations and conditions corresponding to those provided in sections 2 and 3 of the Act of August 31, 1964 (16 U.S.C. 837a and 837b) for any contract for the sale, delivery, or exchange of hydroelectric energy or peaking capacity generated within the Pacific Northwest for use outside the Pacific Northwest. In applying such sections for the purposes of this subsection, the term "surplus energy" shall mean electric energy for which there is no market in the Pacific Northwest at any rate established for the disposition of such energy, and the term "surplus peaking capacity" shall mean electric peaking capacity for which there is no demand in the Pacific Northwest at the rate established for the disposition of such capacity. The authority granted, and duties imposed upon, the Secretary by sections 5 and 7 of such Act (16 U.S.C. 837e and 837f) shall also apply to the Administrator in connection with resources acquired by the Administrator pursuant to this Act. The Administrator shall, in making any determination, under any contract executed pursuant to section 5, of the electric power requirements of any Pacific Northwest customer, which is a non-Federal entity having its own generation, exclude, in addition to hydroelectric generated energy excluded from such requirements pursuant to section 3(d) of such Act (16 U.S.C. 837b(d)), any amount of energy included in the resources of such customer for service to firm loads in the region if (1) such amount was disposed of by such customer outside the region, and (2) as a result of such disposition, the firm energy requirements of such customer or other customers of the Administrator are increased. Such amount of energy shall not be excluded, if the Administrator determines that through reasonable measures such amount of energy could not be conserved or otherwise retained for service to regional loads. The Administrator may sell as replacement for any amount of energy so excluded only energy that would otherwise be surplus.

The sale of FD power takes place completely within the Pacific Northwest. The FD rate schedule is available only for the contract purchase of firm power from BPA by only Pacific Northwest utilities for use only within the Pacific Northwest. Carr, BPA, E-BPA-01, 3; Id. at Attachment 1. Power is not sold outside of the region under the FD rate schedule, and a Pacific Northwest utility may not purchase FD power for export outside the region. Id. Therefore, the sale of FD power is not a "contract of the Administrator for the sale or exchange of electric power for use outside the Pacific Northwest" as provided in section 9(c) of the Pacific Northwest Power Act. 16 U.S.C. § 839f(c). Consequently, the limitations and conditions corresponding to sections 2 and 3 of the Regional Preference Act do not apply. Id.

SCL contends that a sale of FD power is an extraregional sale. Reply Brief, SCL, R-SL-01, 2-4. This is incorrect. The purchase of FD power from BPA by a Pacific Northwest utility must be used to displace the utility's resources that otherwise would have been planned to serve Pacific Northwest firm loads. Carr, BPA, E-BPA-01, 3. There is no sale of FD power unless the power purchased from BPA is used to meet Pacific Northwest loads. *Id.* While, as noted by SCL, FD sales will not occur in the absence of a separate contract between an FD purchaser and a Pacific Southwest utility, BPA is not a party to such extraregional contracts. The sale of FD power will be made only to Pacific Northwest purchasers to serve their Pacific Northwest loads. No FD power is sold outside the region. Thus, FD sales are not sales of power for use outside the Pacific Northwest and the limitations of the Regional Preference Act do not apply.

This conclusion is supported by the terms of the Regional Preference Act. The Regional Preference Act provides that sales of hydroelectric energy and capacity are limited to surplus energy and surplus peaking capacity. Section 9(c) of the Pacific Northwest Power Act defines surplus energy as "electric energy for which there is no market in the Pacific Northwest" and surplus peaking capacity as "electric peaking capacity for which there is no demand in the Pacific Northwest." 16 U.S.C. §839f(c).

The limitations and conditions of sections 2 and 3 of the Regional Preference Act apply only to contracts for the sale or exchange of surplus energy, whether sold directly outside the Pacific Northwest, or as replacement, directly or indirectly, within the Pacific Northwest for hydroelectric energy sold outside the region by a non-Federal utility. 16 U.S.C. §837b(a). In other words, if a sale is not a sale of "surplus" energy, the limitations and conditions contained in sections 2 and 3 do not apply. Therefore, the limitations and conditions of section 2 and 3 do not apply to FD sales because, by definition, FD sales are not "surplus" sales as defined by the Pacific Northwest Power Act. That is, if an FD sale is made by BPA to a Northwest utility for use within the Pacific Northwest, the purchase itself establishes that there is a market and demand in the Pacific Northwest for the power, and thus the power is not surplus.

In its reply brief, SCL argues that FD power is surplus power because BPA has literally referred to it as such. Reply Brief, SCL, R-SL-01, 4-5. Seattle fails to distinguish between "surplus power" meaning power surplus to firm load obligations and "surplus power" as defined for purposes of section 9(c) of the Pacific Northwest Power Act. While FD power is a sale of power surplus to BPA's firm load obligations, FD power, as established above, is clearly not surplus power as defined in section 9(c) of the Pacific Northwest Power Act. Seattle also argues that FD power is surplus power as defined in the Pacific Northwest Power Act because there would not be a market in the Pacific Northwest but for the FD sale. *Id.* at 4-5. This is incorrect. The establishment of an FD rate does not create any power sales. An FD sale will occur only when a Pacific Northwest utility has elected to sell some of its resources outside the region and seeks displacement power for such resources. As discussed below, the Pacific Northwest FD purchaser, pursuant to its power sales contract and the Pacific Northwest Power Act, has a right to make such a determination. It is the FD purchaser that creates the market in the Pacific Northwest, not BPA.

SCL argues that FD sales constitute unlawful "indirect" sales. SCL alleges that the Regional Preference Act "forbids the 'replacement,' either directly or indirectly, of Pacific Northwest hydroelectric power to a non-Federal utility for export outside the region." Opening Brief, Seattle, B-SL-01, 9. This is incorrect. The Act places limitations and conditions on BPA sales of surplus energy "as replacement, directly or indirectly, within the Pacific Northwest for hydroelectric energy delivered for use outside the region by a non-Federal utility." 16 U.S.C. §837b(a). The Act, however, does not "forbid" such sales.

APAC argues that regional preference restrictions should apply to FD sales because FD purchasers may make system sales, including hydro power, outside the region. Reply Brief, APAC, R-PA-01, 5. APAC is correct in part. It is not correct to state that sales by FD purchasers to Pacific Southwest utilities will be system sales. The draft FD contract principles provide that "[t]he PNW purchaser will designate a resource or combination of resources in their Firm Resource Exhibits which will be displaced on a planning basis by their BPA FD purchase." Opening Brief, PPC, B-PP-01, Attachment A, 2. APAC is correct, however, in noting that if a PNW purchaser were to designate hydro resources in its Firm Resource Exhibit for displacement, regional preference limitations would apply to FD sales for the amount of the hydro resources sold outside the region. BPA has consistently recognized this principle. The draft FD contract principles provide that "[d]isplacement of a hydro resource for export will result in P.L. 88-552 limitations for such similar amounts of purchases from BPA." *Id.* The application of regional preference principles to sales to displace hydro power, however, does not require application of such principles to sales which displace thermal power.

SCL alleges that section 9(c) of the Pacific Northwest Power Act limits the sale of all BPA power, whether hydro or thermal, to the same limitations and conditions that correspond to a sale of hydropower under the Regional Preference Act. SCL simply assumes that these limitations also apply to the replacement, directly or indirectly, of electric power to a non-Federal utility for export from the region. Again, SCL is incorrect. This assumption is precisely contrary to the language of the Regional Preference Act and section 9(c) of the Pacific Northwest Power Act.

The Regional Preference Act applies solely to hydroelectric power. Section 3(a) of the Regional Preference Act provides: "Any contract for the sale or exchange of surplus energy for use outside the Pacific Northwest, or as replacement, directly or indirectly, within the Pacific Northwest for hydroelectric energy delivered for use outside that region by a non-Federal utility, shall provide that . . ." 16 U.S.C. §837b(a). A list of limitations and conditions follows this introductory language. The Pacific Northwest Power Act, using nearly identical language, provides that "Any contract of the Administrator for the sale or exchange of electric power for use outside the Pacific Northwest shall be subject to [limitations and conditions corresponding to sections 2 and 3 of the Regional Preference Act for hydroelectric power]." 16 U.S.C. §839f(c). The language of section 9(c) of the Pacific Northwest Power Act did not retain the phrase "or as replacement, directly or indirectly, within the Pacific Northwest for hydroelectric energy delivered for use outside that region by a non-Federal utility." *Id.*

SCL argues that the language regarding direct or indirect replacement constitutes a limitation and condition of section 3 of the Regional Preference Act. Reply Brief, SCL, R-SL-01, 6-8. SCL's argument is refuted by the language of the statute. The language regarding direct or indirect replacement precedes the statement of the limitations and conditions in section 3(a) of the Regional Preference Act. 16 U.S.C. §837b(a). The language regarding direct or indirect replacement is not a limitation or condition of section 3; rather, it is a statement of the contracts to which the limitations and conditions apply. The plain language of the statutes therefore provides that the limitations and conditions apply to replacement within the Pacific Northwest for hydroelectric power delivered outside the region by a non-Federal utility, but not to replacement for thermal sales outside the region unless the thermal resources are at that time dedicated to serving regional firm loads. See discussion infra.

If SCL's interpretation were correct, section 9(c) of the Pacific Northwest Power Act would simply read as follows: "Any contract of the Administrator for the sale or exchange of electric power for use outside the Pacific Northwest, or as replacement, directly or indirectly, within the Pacific Northwest for energy delivered for use outside that region by a non-Federal utility, shall be subject to limitations and conditions corresponding to those provided in sections 2 and 3 of [the Regional Preference Act]." See 16 U.S.C. §839f(c) and 16 U.S.C. §837b(a). This would have directly and clearly established the principles which SCL argues exist. Congress notably did not retain the language regarding direct or indirect replacement. This is because the limitations and conditions in sections 2 and 3 of the Regional Preference Act were not intended to apply to BPA sales to Northwest utilities for meeting Pacific Northwest loads, which utilities in turn may sell their own displaced thermal resources outside the region. Ironically, if SCL's interpretation were adopted, regional preference recall provisions would apply to BPA firm power sales to public utilities selling a resource outside the region that previously had been used to serve public utility firm loads.

BPA's interpretation is verified by the provisions of the Regional Preference Act and the Pacific Northwest Power Act. A primary purpose of the Regional Preference Act is to guarantee electricity consumers in the Pacific Northwest first call on electric energy generated at Federal hydroelectric plants in that region. H.R. Rep. No. 590, 88th Cong., 1st Sess. 2 (1963). In order to ensure this regional power preference, Congress provided that all contracts for the sale or exchange of surplus energy for use outside the Pacific Northwest, or as replacement, directly or indirectly, within the Pacific Northwest for hydroelectric energy delivered for use outside that region by a non-Federal utility are subject to certain limitations and

conditions. 16 U.S.C. § 837b(a). These contracts must give the purchaser notice that the Secretary will not deliver energy under such contracts "whenever it can reasonably be foreseen that such delivery would impair his ability to meet, either at or after the time of such delivery, the energy requirements of any Pacific Northwest purchaser." Id. (Emphasis added.) Thus, the mechanism for ensuring regional preference was to ensure that BPA would be able to meet the "energy requirements" of its Pacific Northwest customers. The term energy requirements is a term of art in the Regional Preference Act. 16 U.S.C. §837(f).

Congress continued to use the concept of energy requirements to define regional preference in the Pacific Northwest Power Act. However, a proper understanding of the regional preference provisions of the Pacific Northwest Power Act must begin with an understanding of the Administrator's obligations under that Act to meet the power requirements of Pacific Northwest utilities. Section 5(b) of the Pacific Northwest Power Act, 16 U.S.C. §839c(b), provides:

(b)(1) Whenever requested, the Administrator shall offer to sell to each requesting public body and cooperative entitled to preference and priority under the Bonneville Project Act of 1937 and to each requesting investor-owned utility electric power to meet the firm power load of such public body, cooperative or investor-owned utility in the Region to the extent that such firm power load exceeds--

(A) the capability of such entity's firm peaking and energy resources used in the year prior to the enactment of this Act to serve its firm load in the region, and

(B) such other resources as such entity determines, pursuant to contracts under this Act, will be used to serve its firm load in the region.

In determining the resources which are used to serve a firm load, for purposes of subparagraphs (A) and (B), any resources used to serve a firm load under such subparagraphs shall be treated as continuing to be so used, unless such use is discontinued with the consent of the Administrator, or unless such use is discontinued because of obsolescence, retirement, loss of resource, or loss of contract rights.

In other words, the Administrator is obligated to meet the firm power load of requesting Pacific Northwest utilities, subject to certain conditions. Briefly, the Administrator must meet the difference between the capability of the utility's resources and the utility's actual firm power load. Pursuant to section 5(b)(1), the utility determines which of its resources it will dedicate to meet its firm load in the region. This determination is made in the firm resource exhibit to the power sales contract. The contract also contains provisions describing the conditions under which a resource may be added or removed from a customer's firm resource exhibit. If the utility chooses not to include a resource in its firm resource exhibit, the utility is

free to sell the power from such resource outside the region. Pursuant to the power sales contract, the Administrator must provide power equal to the difference between the utility's resources and actual firm power loads.

This statutory scheme was expressly recognized in section 9(c) of the Pacific Northwest Power Act regarding regional preference. Section 9(c) of the Act addresses the definition of energy requirements and the adjustments to energy requirements when a BPA customer sells power outside the region. Section 9(c) provides, in pertinent part:

. . . The Administrator shall, in making any determination, under any contract executed pursuant to section 5, of the electric power requirements of any Pacific Northwest customer, which is a non-Federal entity having its own generation, exclude, in addition to hydroelectric generated energy excluded from such requirements pursuant to section 3(d) of such Act (16 U.S.C. 837b(d)), any amount of energy included in the resources of such customer for service to firm loads in the region if (1) such amount was disposed of by such customer outside the region, and (2) as a result of such disposition, the firm energy requirements of such customer or other customers of the Administrator are increased. Such amount of energy shall not be excluded, if the Administrator determines that through reasonable measures such amount of energy could not be conserved or otherwise retained for service to regional loads. The Administrator may sell as replacement for any amount of energy so excluded only energy that would otherwise be surplus. (Emphasis added).

PPC argues that an FD sale, as an increase in firm power purchases from BPA, constitutes an increase in the FD purchaser's firm energy requirements on BPA. PPC therefore argues that regional preference restrictions should apply to FD sales. Reply Brief, PPC, R-PP-01, 11. This is incorrect. Section 9(c) provides that if a utility does not presently include a resource in its firm resource exhibit, the utility may sell such resource outside the region without increasing firm energy requirements of any BPA customer because BPA is obligated to serve that load without regard to whether the resource is exported or not. If, however, the utility sells outside the region power from a resource which is dedicated to meet regional firm loads (by listing the resource in the firm resource exhibit), then the request to BPA to purchase replacement power would increase the utility's firm energy requirements. Consequently, BPA's obligation to provide firm power to the utility would be reduced in this instance and the limitations of sections 2 and 3 of the Regional Preference Act would apply. The Administrator could then sell as replacement for such energy only surplus energy.

SCL argues that section 9(c) does not relate "to BPA's obligations to meet a customer's energy requirements under section 5(b)(1)" of the Pacific Northwest Power Act. Reply Brief, SCL, R-SL-01, 8-9. This argument makes little sense. Notably, SCL fails to quote the statutory provision in question. Section 9(c) of the Pacific Northwest Power Act provides: "The Administrator shall, in making any determination, under any contract executed pursuant to section 5, of the electric power requirements of any Pacific Northwest customer ..." (emphasis added). Thus, the statute itself references section 5 of the Pacific Northwest Power Act which establishes BPA's firm load obligations. While SCL alleges that section 9(c) does not relate "to BPA's obligations to meet a customer's energy requirements under section 5(b)(1)," the legislative history of section 9(c) cited by SCL provides that "... the Administrator's obligations to meet a customer's firm load requirements will be limited if that customer disposes of a portion of its own resources outside the region and thereby increases its or another regional customer's firm power purchases from the Administrator." (Emphasis added.) S. Rep. No. 96-272, 96th Cong. 1st Sess. 34 (1979). Thus, SCL rebuts its own argument.

PPC argues that the focus of the Regional Preference Act and section 9(c) of the Pacific Northwest Power Act is on keeping BPA power in the Pacific Northwest for regional customers' loads. As discussed previously, however, FD sales are used solely for serving Pacific Northwest loads. FD sales are thus consistent with this goal. PPC also argues that allowing an FD purchaser to sell its resources to the Pacific Southwest and, in addition, to purchase power from BPA is inconsistent with a law designed to allocate scarce FBS (Federal Base System) power. This is incorrect. First, as discussed previously, this was contemplated by Congress. Second, the FD program ensures that Federal resources that otherwise might be exported are allocated to the Pacific Northwest. Finally, there is little impact on the allocation of FBS resources resulting from regional preference principles. For example, if a Pacific Northwest utility were to sell thermal power outside the region, displacement FD power would not be comprised of FBS resources. Even assuming that replacement power were other BPA firm power, NR (New Resources) sales to investor-owned utilities do not include FBS resources. Furthermore, Pacific Northwest publicly owned utilities have little thermal power to replace. Any additional allocation of FBS resources would be minimal at best.

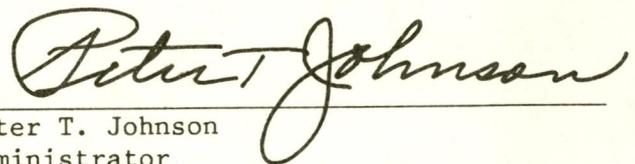
In summary, arguments that FD sales are inconsistent with the Regional Preference Act and the Pacific Northwest Power Act are refuted by the terms of the statutes.

Decision

Issues of regional preference do not arise until an actual power sale is consummated. Establishment of an FD rate does not constitute a sale of power.

Based upon the foregoing, I hereby adopt as Bonneville Power Administration's final rate proposal the attached FD-85 Firm Displacement Power rate schedule.

Issued at Portland, Oregon, this 6th day of June 1986.



Peter T. Johnson
Administrator

APPENDICES

Appendix A

LIST OF PARTIES AND ABBREVIATIONS

<u>Parties</u>	<u>Abbreviations</u>
Association of Northwest Gas Utilities	ANGU
Association of Public Agency Customers	APAC
Bonneville Power Administration	BPA
CP National Corporation	CPN
California Energy Commission	CEC
California Public Utilities Commission	CPUC
Direct Service Industries	DSI
Montana Power Company	MPC
Oregon Public Utility Commissioner	OPUC
Pacific Northwest Generating Company	PNGC
Pacific Power & Light Company	PP&L
Portland General Electric Company	PGE
Public Power Council	PPC
Puget Sound Power & Light Company	PSPL
Snohomish County Public Utility District	SCPUD
Seattle, City of (City Light Department)	SCL
Vernon, California, City of	VC
Washington Water Power Company	WWPC
Western Public Agencies Group	WPAG

Appendix B

LIST OF FIRM DISPLACEMENT RATE HEARING
PARTIES, WITNESSES, AND REPRESENTATIVES

Austin, R. Michael	Bonneville Power Administration
Baldrice, Donald J.	Bonneville Power Administration
Bernheim, Joyce M.	Pacific Power & Light Company
Ballbach, J. Daniel	Puget Sound Power & Light Company
Cameron, John A.	Bonneville Power Administration
Carr, John D.	Bonneville Power Administration
Casad, Kurt R.	Bonneville Power Administration
Chamberlain, William M.	California Energy Commission
Cook, Harold	Association of Public Agency Customers
Crisson, Mark	Direct Service Industries
Drummond, William K.	Public Power Council
Early, Michael B.	Direct Service Industries
Fairchild, Peter G.	California Public Utilities Commission
Flanagan, Daniel O.	Montana Power Company
Furman, Donald N.	Portland General Electric Company
Garten, Allen M.	Association of Public Agency Customers
Gould, John Wiley	CP National Corporation
Grace, David W.	California Energy Commission
Graham, Paul A.	Public Utilities Commissioner of Oregon
Guyer, Brent	Washington Water Power Company
Hammerquist, Floyd E.	Pacific Power & Light Company
Hellman, Marc M.	Oregon Public Utility Commissioner
Ichien, Arlene	California Energy Commission
Kari, Donald G.	Puget Sound Power & Light Company
Kaufman, Paul	Public Power Council
Kellerman, Larry M.	Portland General Electric Company
Kerr, Janice E.	California Public Utilities Commission
Knight, D. H.	Puget Sound Power & Light Company
McCullough, Robert F.	Portland General Electric Company
Meyer, David J.	Washington Water Power Company
Morris, Frederic A.	Puget Sound Power & Light Company
Mundorf, Terrence L.	Snohomish County Public Utility District
Nadal, Joseph	Pacific Northwest Generating Company
Rasmussen, C. Stanley	CP National Corporation
Russell, Whitfield A.	City of Vernon, California
Sabin, Richard W.	Association of Northwest Gas Utilities
Simpson, J. Calvin	California Public Utilities Commission
Wolverton, Lincoln	Public Power Council
Wood, Marcus	Pacific Power & Light Company
Young, Robert	Direct Service Industries

Appendix C

LIST OF PARTICIPANTS

<u>Name</u>	<u>Representing</u>
Barnes, E. Gregory	San Diego Gas & Electric Company
Carey, Linda S.	Sacramento Municipal Utility District
Frazee, Mark A.	Southern California Edison Company
Jauregui, Paul L.	Idaho Power Company
Jones, Richard C.	Pacific Gas & Electric Company
Kaplan, David S.	Sacramento Municipal Utility District
O'Banion, John P.	Sacramento Municipal Utility District
Obrist, Roger S.	Self
Otero, S. James	Los Angeles Department of Water & Power
Sanders, Donald	Western Area Power Administration
Strong, Michael G.	San Diego Gas & Electric Company
Walsh, James F.	San Diego Gas & Electric Company

Appendix D

SCHEDULE FD-85

FIRM DISPLACEMENT POWER RATE

SECTION I. AVAILABILITY

This schedule is available for Firm Displacement contract purchases of power or capacity by Pacific Northwest utilities for use within the Pacific Northwest. Firm Displacement purchases shall replace the generation from resources exported from the Pacific Northwest on a firm basis for a period of at least three years. Schedule FD-85 becomes effective on an interim basis on August 1, 1986.

SECTION II. RATE

The rate for Firm Displacement Power shall be mutually agreed upon by BPA and the purchaser prior to delivery of the power.

A. Contract Rate

The following rate shall apply if the Firm Displacement contract refers to the Contract rate specified in this rate schedule:

1. Demand Charge

a. For contracts that specify 12 months of service per year, \$68.28 per kilowatt per year of Contract Demand billed monthly at the rate of \$5.69 per kilowatt of Contract Demand occurring during the Peak Period in each billing month.

b. For contracts that specify service for fewer than 12 months per year, the monthly demand charge shall be assessed only for the specified service months at the rate of \$5.69 per kilowatt of Billing Demand occurring during the Peak Period plus:

$$\frac{\$5.69 * (12 - \text{specified service months}) * .25}{\text{specified service months}}$$

c. A Load Factor Credit shall be granted based on the annual load factor specified in the FD-85 contract.

(1) For annual load factors equal to or greater than 55 percent, the credit shall be \$0.95 per kilowatt of Contract Demand per month.

(2) For annual load factors less than 55 percent, the credit per kilowatt of Contract Demand per month shall be equal to:

$$\$0.95 * \frac{\text{Annual Load Factor}}{55 \text{ percent}}$$

d. No demand charge during Offpeak Period hours.

2. Energy charge is 22.2 mills per kilowatthour of Billing Energy.

B. Resource Rate

If the Firm Displacement contract specifies that the rate is to be based on the cost of specific resource(s) or purchase(s), the rate shall equal the variable and fixed costs of power from such resource(s) or purchase(s) plus 5.2 mills per kilowatthour. The rate shall be specified in the contract and shall be set at a level that will recover BPA's forecasted cost of power from the resource(s) or purchase(s).

SECTION III. BILLING FACTORS

The billing factors shall be the Contract Demand and Contract Energy.

SECTION IV. ADJUSTMENTS AND SPECIAL PROVISIONS

A. Escalation Factor

The FD-85 Contract and Resource Rate components, Extended Peaking Surcharge and Energy Return Surcharge will be adjusted each October 1, beginning October 1, 1987. The effective rate for each rate component for year 'n' shall be calculated as follows:

$$FD_n = FD_c * \frac{PF_n}{PF_{87}} * (1.02)^n$$

where FD_n = the FD rate components for year 'n' beginning October 1;

FD_c = the FD rate components effective through September 30, 1987;

PF_n = the average Priority Firm Power (PF) rate (or successor rate(s)) effective on October 1 of year 'n'. Such average rate shall be calculated at 55 percent load factor, assuming a uniform demand in all months. If there is more than one successor rate, the average shall be determined by a weighting based on forecasted sales in the rate case;

PF_{87} = the PF rate effective July 1, 1985, at a load factor of 55 percent, assuming a uniform demand in all months.

B. Extended Peaking Surcharge

1. For contract purchases of capacity, the monthly capacity rate specified in section I.A. above shall be increased by the following extended peaking surcharge to compensate BPA for each hour that the purchaser's monthly demand duration exceeds 8 hours:
 - a. \$0.0928 per kilowatt per hour of extended peaking for the months April through November, and
 - b. \$0.0523 per kilowatt per hour of extended peaking for the months December through March.

The charge shall be adjusted pro rata for each portion of an hour of extended peaking supplied to the purchaser.

2. The purchaser's monthly demand duration shall be determined by dividing:
 - a. the kilowatthours supplied to the purchaser under this rate schedule between the hours of 7 a.m. and 10 p.m. on the day of maximum kilowatthour use during those hours, provided such day is not a Sunday, by
 - b. the purchaser's Contract Demand for such month.
3. The purchaser's extended peaking shall be the amount by which the purchaser's monthly demand duration exceeds 8 hours. The extended peaking surcharge shall not be applied during periods when BPA does not require the delivery of peaking replacement energy by the purchaser.
4. The extended peaking surcharge shall be subject to the escalation factor specified in section IV.A. above.

C. Energy Return Surcharge

1. The energy associated with the delivery of Firm Displacement capacity must be returned to BPA in accordance with the terms of the purchaser's Firm Displacement contract. Unless waived by BPA, any purchaser whose energy returns during any single hour exceed 60 percent of the purchaser's Contract Demand during any single hour shall be subject to the following surcharge for each additional kilowatthour so returned:
 - a. 3.57 mills per kilowatthour for the months April through November, and
 - b. 1.51 mills per kilowatthour for the months December through March.
2. The energy return surcharge shall be subject to the escalation factor specified in section IV.A. above.

SECTION V. RESOURCE COST CONTRIBUTION

In compliance with section 7(j) of the Pacific Northwest Power Act, BPA has made the following determinations:

- A. The approximate cost contribution of different resource categories to the FD-85 rate is 99.2 percent Exchange and 0.8 percent New Resources.
- B. The forecasted average cost of resources available to BPA under average water conditions is 17.6 mills per kilowatthour.
- C. The forecasted cost of resources to meet load growth is 33.0 mills per kilowatthour.

SECTION VI. GENERAL PROVISIONS

Sales of power under this schedule shall be subject to the General Rate Schedule Provisions and the following acts, as amended: the Bonneville Project Act, the Regional Preference Act (Pub. L. 88-552), the Federal Columbia River Transmission System Act, and the Pacific Northwest Electric Power Planning and Conservation Act.

GENERAL RATE SCHEDULE PROVISIONS

Add Section II. M.:

M. Firm Displacement Power

Firm Displacement Power is firm power (capacity, or capacity and energy) that BPA makes available to Pacific Northwest utilities for use within the Pacific Northwest. The purchased power will replace the generation from resources that is exported from the Pacific Northwest on a firm basis for a period of at least 3 years. Such power may be restricted pursuant to the Restriction of Deliveries section of the GRSPs (section V.F.).

Appendix E

CALCULATION OF FD-85 RATE

Step 1:

Recalculate the SP-85 Contract rate to reflect delivery of SP power in the PNW. The recalculated rate is derived from billing determinants that reflect network losses but not Intertie losses.

a. <u>Classification</u>	<u>Allocated Costs</u> 1/ (\$000)	<u>Scaled Costs</u> 2/ (\$000)
FCRTS	44	43
Generation Capacity	<u>73,136</u>	<u>72,624</u>
Total Capacity	73,180	72,667
Generation Energy	185,731	184,431

b. Billing Determinants (network losses but not Intertie losses).

	<u>Network Loss Factor</u> 3/	<u>Generated Energy</u> 4/ (aMW)	<u>Delivered Energy</u> (aMW)	(GWh)
October	1.022	1189	1163	865
November	1.024	1189	1161	836
December	1.026	1189	1159	862
January	1.027	1189	1158	862
February	1.025	1189	1160	780
March	1.024	1189	1161	863
April	1.023	1189	1162	837
May	1.023	0	0	0
June	1.023	1189	1162	837
July	1.021	1189	1165	867
August	1.022	1189	1163	865
September	1.021	1189	<u>1165</u>	<u>839</u>

Capacity (MW-mo. at 100 percent load factor) 12779

Energy (GWh) 9313

c. Recalculated SP Rate

Demand charge (\$72,667/12,779) = \$5.69/kW-mo.

Energy charge (\$184,431/9,313) = 19.8 mills/kWh

d. The FD-85 demand charge is \$5.69/kW-mo.

Step 2:

Calculate the average recalculated SP rate at 55 percent load factor.

$$[\$5.69/ (.55)(730)] + \$0.0198 = 34.0 \text{ mills/kWh.}$$

Step 3:

Calculate the FD-85 demand charge for load factors equal to or greater than 55 percent by setting the energy charge equal to the NF-85 Standard rate, 22.2 mills/kWh, and assuming an average rate of 34.0 mills/kWh at 55 percent load factor.

$$\begin{aligned} [X/ (.55)(730)] + \$0.0222 &= \$0.034 \\ X &= \$4.74/\text{kW-mo.} \end{aligned}$$

Step 4:

Calculate the Load Factor Credit.

- a. For annual load factors equal to or greater than 55 percent, the credit is $\$5.69 - \$4.74 = \$0.95/\text{kW-mo.}$
- b. For annual load factors less than 55 percent, each 1 percent increase in load factor will decrease the demand charge by $\$0.95/55 = \$0.0173/\text{kW-mo.}$

-
- 1/ Rate Analysis Model, WP-85-FS-BPA-05, 150.
 - 2/ Wholesale Power Rate Design Study, WP-85-FS-BPA-08, 107.
 - 3/ Rate Analysis Model, WP-85-FS-BPA-05, page 88, line 6.
 - 4/ Rate Analysis Model, WP-85-FS-BPA-05, page 90, line 12.

Appendix F

FD-85
1987 AVERAGE RATES
(mills/kWh)

(A) <u>Load Factor (%)</u>	(B) <u>Initial Proposal</u> <u>1/</u>	(C) <u>Draft ROD FD-85</u> <u>2/</u>	(D) <u>Draft ROD</u> <u>W/LF Credit</u> <u>3/</u>
100	28.7	28.7	28.7
90	29.4	29.4	29.4
80	30.3	30.3	30.3
70	31.5	31.5	31.5
60	33.0	33.0	33.0
55	34.0	34.0	34.0
50	35.5	35.2	35.4
40	39.5	38.4	39.3
30	46.2	43.8	45.8
20	59.7	54.7	58.8
10	100.1	87.1	97.8

1/ Carr, BPA, E-BPA-01, Attachment 1; Cook, APAC, E-PA-01, 14. For load factors of 55 percent or greater, demand charge = \$4.73 kW-mo. For load factors less than 55 percent, demand charge = \$5.90 - [\$1.17 * (Annual LF/55 percent)]. Energy charge = 22.2 mills/kWh.

2/ See Appendix E. Demand charge = \$4.74, energy charge = 22.2.

3/ Same as Column (C), except for load factors less than 55 percent: demand charge = \$5.69 - [\$0.95 * (Annual LF/55 percent)].

Appendix G

FORECASTED SURPLUS FIRM POWER
AND FIRM DISPLACEMENT RATES
(mills/kWh nominal)

(A) Year	(B) Forecasted PF Rate <u>1/</u>	(C) Forecasted SP Rate <u>1/ 2/</u>	(D) SP at 55% Load Factor <u>3/ 4/</u>	(E) FD at 55% Load Factor <u>5/</u>
1987	22.2	29.9	35.3	34.0
1988	23.6	32.4	38.3	36.9
1989	27.0	33.8	39.9	43.0
1990	27.6	35.2	41.6	44.9
1991	29.8	36.8	43.4	49.4
1992	31.8	39.9	47.1	53.8
1993	33.2	42.7	50.4	57.3
1994	34.3	44.0	51.9	60.3
1995	35.3	45.6	53.8	63.3
1996	37.0	47.6	56.2	67.7
1997	38.2	49.3	58.2	71.3
1998	39.2	51.1	60.3	74.6
1999	40.7	53.1	62.7	79.1
2000	42.2	55.1	65.1	83.6
2001	43.9	57.3	67.6	88.7
2002	45.7	58.9	69.5	94.2
2003	47.6	62.6	73.9	100.1
2004	50.7	71.4	83.8	108.7
2005	53.7	80.4	94.9	117.5

1/ Hammerquist, PP&L, E-PL-03R, 3R-2.

2/ Includes Intertie Service charge.

3/ 1987: demand charge = \$5.90/kW-mo., energy charge = 20.6 mills/kWh.
Carr, BPA, E-BPA-01, Attachment 3.

1988-2005: $35.3 \text{ mills/kWh} * [SP_n \text{ (from column (c))} / 29.9 \text{ mills/kWh}]$, for year n.

4/ Excludes Intertie Service charge.

5/ 1987: demand charge = \$4.74/kW-mo., energy charge = 22.2 mills/kWh.

1988-2005: $34.0 \text{ mills/kWh} * [PF_n \text{ (from column (b))} / 22.2 \text{ mills/kWh}]$
 $* (1.02)^n$, for year n.

Pam Marshall - DNSC