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Introduction

The Slice Straw Proposal defines and further develops the Bonneville Power Administration's ("BPA") Slice Proposal that was included in BPA's final subscription policy of December 21, 1998. Among the features that have been further developed are methods for defining a customer's Slice "percentage", a proposal for dispute resolution, and a paper-pond accounting model. BPA expects to modify this Straw Proposal considering input from customers and their representatives. Provisions of the Straw Proposal will be used by BPA as basic principles in developing a Slice contract. The Straw Proposal attempts to meet two goals: 1) maintain the overall balance of equity contained in the original Slice Proposal, and 2) simplify as much of the Slice Product design as possible. The simplification effort goes to implementation, rate design, and administration issues (including minimizing potential disputes).

The Straw Proposal is intended to be a living document and is subject to frequent change. The current version of the Straw proposal is attached.

Annotated Proposal¹

I. Nature of Slice Product

A. General Description

The Slice of the System Product (Slice) is a power sale which is based upon a customer's annual net firm requirements load and mapped to provide power in the shape of BPA's Federal Base System generation over the year. Although the calculated percentage of a Slice purchase would not exceed a customer's net firm load on an annual basis, in certain periods of the year and dependent upon water conditions the total amount of megawatt hours provided in those periods might exceed the customer's planned loads. Slice has a component that is firm power to meet requirements loads, the portion based on critical water firm load carrying capability, and a nonfirm or surplus firm component. The surplus firm component will occur on a planning basis in spring months when water conditions are high due to several factors and far exceed BPA's planned firm loads in the region.

B. Slice Product as a Requirements Product

Eligibility for the Slice Product is limited to preference customers who can request to place their net firm regional load on BPA pursuant to section 5(b) of the Northwest Power Act. Such preference customers have the statutory right to obligate BPA to serve their net firm regional loads not served by such customers' declared firm resources, regardless of the magnitude or duration of such firm loads.

By electing to take service under the Slice Product, these preference customers will agree to have BPA serve that portion of their net requirements load by the Slice product, and agree to accept power from BPA as it is generated by the Federal power system. Since, under this arrangement, Federal power under the Slice Product will not match consumer load by occasionally exceeding or being less than the net requirement loads of a Slice purchaser, the Slice purchaser will declare sufficient firm resources to meet its load in those periods in which the Slice power delivery is less than what an annual average net requirement delivered in all months would provide. The Slice Product will provide power in excess of load in other periods within the year and be an advance sale of surplus power.

The advance sale of surplus power on a planning basis within the region to preference customers under the Slice Product is consistent with BPA's statutory

¹ This version of the Straw Proposal is annotated to reflect the status of certain ongoing issue rather than detail specific agreements.

obligations. During any period that it is delivering surplus power to any Slice purchaser, BPA will on an annual planning basis have met its firm power obligations on a planning basis to all regional loads that it is obligated to serve. As a consequence, the power being delivered to a Slice purchaser in excess of its net requirements load at any point in time is surplus power because it is power that is in excess of that needed by BPA to serve regional loads it is obligated to serve.

Finally, the periodic sale of excess power from non-Federal resources owned by Slice purchasers, whether such excess power is sold within or without the region, will be permitted under the Slice product. Excess non-Federal power (power that cannot reasonably be conserved or kept available for the utility's use) can be sold outside the region if such sale does not increase the firm energy requirements of the Slice purchaser or other customers of BPA. Since the sale of excess non-Federal power outside the region cannot under any circumstances increase the net requirements of any Slice purchaser or other BPA customer, such sales of excess non-Federal power outside the region is statutorily permissible.

II. Term

A. Duration

10 to 20 years.

B. No Off-Ramps

There will be no off-ramps to Slice Contracts.

C. Commencement Date

The Slice Contracts will become effective on October 1, 2001.

III. Eligibility

Only BPA customers that have (i) a Northwest Power Act Section 5(b) Net Requirements load and (ii) a statutory public preference right are eligible to purchase Slice ("Eligible Customer").

IV. Slice Entitlement

The annual amount of firm requirements power that a Participant is entitled to purchase is a function of applying the Participant's Slice Percentage to the Slice System generation assuming no change in storage ("Slice Entitlement"); *provided* the exact amount of a Participant's Slice Entitlement on each hour will be influenced by such Participant's on-going use of Slice Entitlement as reflected in the Participant's Slice System Storage Account (see Accounting and Scheduling Sections below, including all editorial comments). The Participant may vary the rate of its Slice Entitlement so long as the rate of delivery of Slice is between the maximum and minimum bounds established by BPA. BPA will calculate these bounds by multiplying the maximum and minimum generation of the Slice System by the Participant's Slice Percentage. The Slice System Storage Account will be used to track the accumulated difference between the power received and the Slice Entitlement. A Participant is not required to take delivery of its full Slice Entitlement; rather a Participant has the flexibility to schedule within the maximum and minimum operating limits of the Slice System. The Participant agrees that when the Participant's request of its Slice Entitlement is below its maximum Slice Entitlement, BPA may use any portion of the unused maximum Slice Entitlement so long as BPA does not restrict the Participant's access to such Slice Entitlement if called upon.

V. Slice Percentage

A. [Determination of Maximum Percentage](#)

The maximum percentage of the Slice System Capability that an Eligible Customer may purchase ("Maximum Percentage") shall be determined by the following formula:

$$\text{Max Percent} = [\text{customer's firm load} - \text{customer firm resources}] \text{ or } [\text{Net Entitlement}] / \text{Total Inventory}$$

Where,

Max Percent = The Maximum Percentage of the Slice System Capability that an Eligible Customer may purchase.

Net Entitlement = The annual average quantity of the Eligible Customer's Net firm load Requirement (measured in average megawatts of energy) calculated for such Eligible Customer in the Subscription Process (using the same methodology and operating year as used to determine entitlements to purchase Partial Block Service)² and

² "Speech Number 1" (or a general qualifier) for the Slice negotiations and for this Straw Proposal is that the Slice Product must be consistent with certain decisions coming out of Subscription. This is especially true with respect

Total Inventory = The annual average firm energy load carrying capability (measured in average megawatts of energy) calculated in the Rate Case for “PNCA-Identified” Federal System Resources, adjusted by System Obligations of the FCRPS as defined below in Section VI. For this purpose “PNCA-Identified” Federal System Resources are those FCRPS resources identified in BPA’s Pacific Northwest Coordination Agreement (“PNCA”) 1998-99 data submittal.³

Determining an Eligible Customer’s Maximum is a calculation made prior to the execution of a Slice Contract, and its sole purpose is to set the Maximum Percentage available to such customer.

B. Slice Percentage

An Eligible Customer may purchase a Slice Percentage in an amount up to its Maximum Percentage. The percentage purchased must remain constant throughout each year of the Slice Contract. Once selected, a Slice Percentage is fixed regardless of whether the Participant subsequently acquires or loses resources or has unexpected temporary load increases or decreases during an operating year or years.⁴

C. Process to Select Slice Percentage

BPA shall identify the Maximum Percentage for an Eligible Customer at the time the Slice Contract is executed. A blank "Selected Slice Percentage Exhibit" will be attached to the contract. Within 120 days (this duration is meant to be consistent with the selection window available for other Subscription Products) following the end of the Rate Case, the Eligible Customer will notify BPA of whether it wishes to purchase its power service as a Slice and if so its selected Slice Percentage (including zero percent, in which case the Slice Contract would terminate), and there will be a one-time revision to the Selected Slice Percentage Exhibit to show the selected percentage.

to a potential Participant’s Net Entitlement.

³ The energy associated with BPA’s Inventory Solution is not included in the Total Inventory; Participants pay their proportionate share of the net cost of the Inventory Solution but do not receive any of the increased capability resulting from the Inventory Solution.

⁴ The issue of a Participant’s loss of net requirement load on a planning basis has not been addressed and BPA is considering terms which will address this issue.

VI. Slice System Capability

The Slice Product is not a sale of Federal System Resources but rather it is a power sale that is indexed to and follows the capabilities of an agreed upon and specific set of Federal System Resources.

A. [Slice System Resources](#)⁵

The Federal system resources that comprise the “Slice System” includes the Federal System Resources identified by BPA in its 1998-99 Pacific Northwest Coordination Agreement data submittal, which resources are reflected on Attachment 1.

B. [Capability of “Slice System”](#)

The capability of the “Slice System” is the energy capability of the “Slice System Resources”, after adjusting for all non-power requirements and unit outages.

Energy capabilities of the “Slice System” will be monitored by PBL and will be updated as necessary.

C. [System Obligations](#)

System Obligations are the net power obligations of BPA that support the FCRPS and other Federal commitments related to the Federal System. Net power obligations, as used in this context, mean the accumulated increases and decreases in energy capability as well as generation. BPA will adjust the Slice System Capabilities as well as the Slice Entitlement for any net power obligations that are energy transactions either into or out of the Federal system. For net power obligations that have no energy component, BPA will adjust the Slice System Capabilities but not the Slice Entitlement. For example, if a system obligation was an obligation to hold an amount of generating capability (reserves) the maximum and minimum Slice System Capabilities would be adjusted but not the Slice Entitlement.

The test for determining whether a BPA energy obligation is a System Obligation or an obligation of BPA is whether BPA would still have had the commitment if 100% of its Federal net firm requirements load obligation in the region had been satisfied through Slice purchases. System Obligations that are currently known

⁵ BPA has used the term Slice system Resources to denote those Federal resources upon which BPA will base the Slice Product. This is done to recognize the fact that during the contract BPA may add by purchase or acquisition new resources to the Federal Base System which are not, and may not be, included as a part of the Federal Base system upon which the Slice is based.

include the net of all transactions associated with:

1. Canadian Entitlement obligations;
2. Hourly Coordination obligations;
3. Pacific Northwest Coordination Agreement (“PNCA”) obligations (all PNCA energy transactions will be accommodated prior to BPA calculating the Slice System Capabilities; BPA will not adjust its resources declaration under the PNCA for Slice; other Participants will reflect their Slice Entitlement as a firm transfer in PNCA firm planning; parties to the current PNCA at the time of execution of the Slice Contract shall be required to execute the 1997 PNCA);
4. Non-Treaty Storage obligations;
5. Biological Opinion obligations; and
6. System commitments to BPA’s Transmission Business Line (TBL), including generation dropping under the remedial action scheme (“RAS”)⁶.

D. Upgrades, Adjustments, Acquisitions and Replacements

The composition and generating characteristics of the “Slice System Resources”, with the following exceptions, shall remain constant over the term of the Slice Contract. Generating characteristics, for this purpose, are the physical generating characteristics of a project before operational limits are applied. The capabilities of the “Slice System Resources” are expected to vary as operating requirements change.

(1) Physical Upgrades or Adjustments

Any physical upgrade or adjustment (increase or decrease) to a “Slice System Resource” or to a unit of a “Slice System Resource” will be included in the “Slice System” and, as such, the Participants shall be responsible for their proportionate share of the associated costs of such upgrade or adjustment. Adjustments may also include the removal or diminishment of a “Slice System Resource” (for example the removal of a dam or a generating unit). BPA shall provide Participants with advance notice of the upgrade or adjustment.

⁶ At this time, BPA will treat its RAS obligations as a System Obligation. A Participant will be affected the same as BPA when a RAS is put in place (generation capability will be dropped). To the extent BPA receives revenues for the RAS it will be credited to the Slice Revenue Requirement. Notwithstanding this, BPA expressly reserves the right to choose to supply RAS out of its “Slice” at a future date.

(2) Public Purpose Resource Acquisitions

Any Public Purpose Resource Acquisition made by BPA will be included in the “Slice System” and, as such, the Participants shall be responsible for their proportionate share of the associated costs of such Public Purpose Resource Acquisition. The capability of the “Slice System” shall be adjusted to reflect such addition to the “Slice System”. BPA shall provide Participants with advance notice of any Public Purpose Resource Acquisition.

(3) Resource Acquisition by BPA

BPA will not be obligated by the Slice contract to acquire resources for any reason, including the replacement of resources that are part of the Slice System. Nothing in the Slice product shall affect the respective rights and obligations of the parties pursuant to section 6(m) of the Regional Power Act. Any offer of participation under section 6(m) made by BPA to a Slice purchaser shall be a separate purchase under a new contract.

(4) Federal Base System Replacement Resources

Should BPA acquire a resource that it designates as a Federal Base System replacement resource, and a Slice participant elects to participate in such resource, the new contract governing the new resource shall set forth the conditions for such purchase and may include terms under which the Slice participant’s share of such resource may be coordinated with its Slice share.

E. Economic Displacement of WNP2

When BPA reduces the WNP2 generation for economic reasons to a level other than zero, PBL will give the Participants notice of such reduction the later of the time the decision to displace is made or 48 hours before the reduction. The Participants must then decide whether to participate in such reduction or to continue to receive the current level of energy attributed to the plant. This decision will be for the duration of the economic reduction. The decision must be received by PBL not less than 24 hours before the start of the reduction so that the appropriate generation level can be requested at the plant to accommodate both the economic reduction and those requests for energy deliveries based on the unreduced generation level.

For economic reductions in the plant that take the plant's generation to zero, the same notice period will apply. The Participants will not have an option to take power from the plant but will have the option of purchasing energy from BPA in the amount that is being displaced at an indexed price.

F. Other Things to Address

Distinguishing between Replacements and Inventory Solution. Depending upon the form of the "Inventory Solution," there might be a need to distinguish between replacements and the Inventory Solution in the Slice Contracts (the concern is that in the second 5 year period, the costs of true replacements should not be placed into the Slice Revenue Requirement as part of the Inventory Solution).

VII. Payments

A. Slice Revenue Requirement

(1) Components of the Slice Revenue Requirement

(a) Power Business Line's Revenue Requirement

The Slice Revenue Requirement shall be comprised of all of the line items in PBL's revenue requirement as identified in all of PBL's rate cases for the years that are within the term of the Participant's Slice Contract with the following exceptions:

1. Transmission costs (other than those associated with the fulfillment of System Obligations);
2. Power purchase costs (with the exception of those net costs incurred as part of the Inventory Solution discussed below); and
3. Net Revenues for Risk.

(See Attachment 2 for an example of the Slice Revenue Requirement).

(b) Depreciation of Costs within the Term of the Slice Contract

[This and other sections may need to be revisited depending upon the outcome of the discussion of some of the customers' Capital Investment proposal] If BPA incurs a cost that is eligible for inclusion in the Slice Revenue Requirement and chooses to depreciate its payment obligation over a multi-year period (so long as the depreciation schedule does not extend beyond the term of the Slice Contract), BPA will correspondingly depreciate the payment obligation in the Slice Revenue Requirement. (See below for discussion of depreciation of costs beyond the term of the Slice Contract) *[Although, of course, we'll have to figure out how to handle those costs before we can add the following discussion! BPA is still considering].*

(c) Previously Unidentified Costs

If a BPA cost arises that was not previously identified, it should be included in the Slice Revenue Requirement to the extent it is a System Obligation as described in Section VI above.

(d) Inventory Solution

(1) General

It is anticipated that as a result of BPA's current Subscription Process, BPA may take steps to supplement the FBS' capability ("Inventory Solution"). The Participants will share in the estimated net cost of the Inventory Solution, although the capability of their "Slice Systems" will not be adjusted. Although it is not currently known whether an Inventory Solution will be necessary or what form the Inventory Solution will take, the governing Slice principle is that whatever is agreed to in Subscription will carry over into the Slice Contracts.

(2) Calculation of the Net Cost of the Inventory Solution on a Projected Basis

The estimated net cost of the Inventory Solution will be placed in the Slice Revenue Requirement as set out below. These costs will not be subject to a true up to reflect the actual net cost of the Inventory Solution.

(3) Inclusion of Net Cost of Inventory Solution in the Slice Revenue Requirement

a) First Rate Case five-year Period (2002 through 2006)

The estimated net cost identified in the Rate Case for the Inventory Solution (including the Inventory Solution for both short- and long-term power sales contracts) shall be included in the Slice Revenue Requirement on a uniform monthly basis during 2002 through 2006. The estimated net cost shall be calculated as the projected expense for the Inventory Solution less the expected revenues for the sale of such inventory enhancement as assumed in the Rate Case, and could be a positive or negative number.

For example, if the Rate Case assumes the Inventory Solution costs \$30 million in power purchases to serve load that would pay expected revenues of \$20 million, the net cost to be added to the Slice Revenue Requirement would be \$10 million.

b) Subsequent Rate-Case Periods

In the rates process for subsequent rate periods, BPA will set the Slice Revenue Requirements with regards to the net cost of any "Inventory Solution" in a manner that is reasonably equitable to the treatment of such costs in rates for other 10 year (or longer) requirements contracts. Exclusion of the net costs of the resources to replace FBS resource degradations is an example of adjustments needed to

achieve such equitable treatment.

(d) Physical Upgrades or Adjustments

The costs of any physical upgrade or adjustment (increase or decrease) to a “Slice System Resource” or to a unit of a “Slice System Resource” will be included in the Slice Revenue Requirement.

(e) Public Purpose Resource Acquisitions

The costs of any Public Purpose Resource Acquisition will be included in the Slice Revenue Requirement.

(f) Federal Base System Resource Replacements Included in the “Slice System Resources” upon mutual agreement between BPA and a Participant

Should BPA acquire a resource that it designates as a Federal Base System replacement resource, and a Slice participant elects to participate in such resource, the contract governing the new resource shall set forth the terms for whether the Slice participant’s share of such replacement cost would be included.

(g) Credits

Any monetary credits that PBL receives for items in the Slice Revenue Requirement shall be credited to such Revenue Requirement, including 4(h)(10)(c) and FCCF credits, with the effect that the benefits of such credit shall be shared proportionately by BPA and all Participants. If BPA receives revenues in payment for fulfilling System Obligations, the revenues that are attributable to the sale of capability of the Federal Resources that are included in the “Slice System” will be credited back to the Slice Revenue Requirement. Any revenues attributable to a Federal Resource replacement that the Participant chose not to participate in will not be credited back to that Participant’s Slice Revenue Requirement.

Since the Participant will be entitled to its share of the conservation funds provided by BPA, it will also be responsible to pay its appropriate share of such funds.

B. [Additional Payment Obligations](#)

(1) [Slice Administrative Expenses](#)

The Participants shall pay all overhead costs incurred by BPA that are attributable to implementing Slice. The detailed costs, enhancement costs, and line items will be noted in an exhibit prior to a final Slice Contract being offered for execution. These costs will be categorized into general costs (payable by all Participants in proportion to their Slice Percentages) and specific costs (attributable to individual Participants as they were incurred specifically for the benefit of such Participants, for example, costs of direct signaling).

(2) [Unauthorized Increased Charge](#)

A Participant in BPA's load control area that takes energy from BPA in excess of its Slice Entitlement and any other contracts with BPA will be charged for such excess at the Unauthorized Increase Charge under the PF Rate.

(3) [Transmission Costs](#)

The Participant is responsible for acquiring and paying for all transmission services required for its Slice Entitlement.

C. [Payment Obligation](#)

A Participant shall pay its share of the costs of its "Slice System" on an annual basis. The amount of a Participant's annual obligation shall be calculated by multiplying the sum of all the costs described in subsection (A) above by the Participant's Slice Percentage. In addition, each Participant shall pay for their share of the Slice administrative expenses as described above in subsection (B)(1) above.

D. Payment Schedule

(1) Periodic Payments

A Participant shall pay its annual Slice payment in 12 equal monthly payments.

(2) True-Up for Actual Expenses

By August 1 of each year BPA will calculate the difference between the Slice Revenue Requirement's forecasted and actual expenses (that are known at that time) and the October payment will be adjusted by the difference. An unusual or unanticipated expense fluctuation of more than a million dollars to BPA [\$1,000,000] will be dealt with as an adjustment to the next month's payment. If a previously unidentified cost discussed in subsection (A)(1)(c) above arises during the year, it will be adjusted by to the true up. Slice administrative costs are adjusted by the true up. The estimated net cost of the Inventory Solution will not be subject to the true-up mechanism. Such costs shall be paid by the Participants on an estimated basis.

The more often during a year that true up occurs, the smaller the adjustment will be to the Participants and the less the cash flow concerns to BPA. BPA will work to provide true-up adjustments on at least a quarterly basis.

E. Other Things to Address

(1) Costs Depreciated Beyond the Term of the Slice Contract

How to treat costs that BPA handles on a depreciated basis beyond the term of the Slice contract. BPA is considering, and the nonfeds are working on a proposal. One suggestion is that the Participants be treated consistently with other ratepayers – if the other ratepayers will be responsible for the depreciation costs during the current rate period then Participants would also be fully responsible; if other ratepayers were only responsible for a portion of such depreciated costs then the Participants would also only be responsible for their proportionate share of such portion. Some of the customers have prepared a Capital Investment proposal that will be considered by BPA.

(2) Timing of the True-Up

BPA is checking to see how often the true up can occur. All parties recognize the dynamic tension in the number of true-ups during a year – the more frequently they happen the less concern there is about cash flow, but the greater the chance the money will have to be exchanged that could otherwise be netted out.

VIII. Deliveries of Power

A. Participants' Acceptance of the Operating Decisions of the Federal Government

The Participants are obtaining a right to purchase power mapped to the Federal system's generating resource capability. The Participants are not buying any right to operate or control the Federal system resources by purchasing Slice. Participants' "Slice System" does not convey any right in the federal system other than the right to take power from the Federal system as calculated by the principles stated herein. Participants agree to accept and not contest the results of the operating decisions of the Federal government (acting through relevant Federal agencies and other entities) regarding the Federal system, including decisions relating to any nonpower requirement being added to or deleted from the Federal System obligations. Examples of nonpower constraints on the Federal System could include: (i) the Biological Opinion ("BO"), (ii) maximum and minimum rates of change on a forebay, tailwater, or discharge at a project, (iii) BPA's decision to economically displace WNP2, (iv) BPA's decision to operate conservatively in January and February to ensure that the Federal System will meet the flood control requirements in April under the BO.

B. Scheduling

Power will be scheduled hourly within the (pro rata) limits of the energy capabilities of the "Slice System", calculated for each Participant (see Section XV below for daily scheduling details). Once everyone is satisfied that the algorithm developed to determine "Slice System Capability" is satisfactory, interested Participants will be able to work with the PBL to develop a strategy for sending a dynamic signal to schedule their Slice Entitlement subject to the final approval of the TBL in doing a dynamic signal for the Participants. All costs to do this will be borne solely by those Participants wanting to schedule by dynamic signal. It is recognized that there will be special issues for Participants in BPA's load control area that schedule Slice and who purchase dynamic load service from BPA. This

will be one of the items worked out in developing a strategy for sending a dynamic signal. For example, with appropriate metering and communications facilities, it is technically feasible to treat such a customer as a nested control area. The PBL is not committing to this approach since the final decision would rest with TBL.

IX. Buy Back Provisions

(The following provision is still being considered by BPA and is dependent on BPA's policy decisions, which have yet to be made.)

A. General

In order to ensure that BPA's sales of the Slice Product will not prevent BPA from serving its other Northwest firm load, on any hour BPA will have the ability to buy back a Participant's Surplus Slice Entitlement on such hour ("Buy Back"). For purposes of Buy Back, a Participant's Net Requirements shall be updated on an on-going basis as provided below.

B. Buy Back Conditions

Buy back may occur when all of the following conditions are met.

(1) A Participant's Slice Entitlement Exceeds its Net Requirements

The Participant's Maximum Slice Entitlement is in excess of its Net Requirements;

For purposes of Buy Back, a Participant's Net Requirement is measured on an on-going hourly basis and is calculated the hour before Buy Back as follow:

Native Firm Load – Planned Peak Firm Resources

Where,

Native Firm Load = The Participant's forecasted hourly load (forecasted the hour before the Buy Back is exercised), and

Planned Peak Firm

Resources = The Participant's declared sustained 6-hour⁷ peak capability (declared on an annual basis)

(2) BPA's Other Northwest Firm Commitments Cannot Be Met

BPA's other Northwest firm commitments cannot be met without additional power purchases;

BPA's other Northwest firm commitments that are considered for purposes of Buy Back are the sum of the following:

(a) Northwest Firm Subscription Contracts

The actual loads of the (firm) Northwest Subscription Contracts under 5(b), (c), and 5(d),

(b) Plus Northwest Firm Post-Subscription Contracts

The actual loads of the (firm) Northwest post-Subscription

⁷ Customer's have proposed a different basis than 6 hours for computing the sustained peak capability. BPA will continue to work with the customers during the set up and testing phase to determine the appropriate basis.

contracts under 5(b), 5(c), 5(d) [waiting for more clarification on whether this should extend to 5(c) and 5(d) – nonfederals might propose alternative language].

(c) Plus Existing Northwest Firm Surplus Sales in Place at the Time of Subscription

The actual loads of existing firm surplus contracts in place at the time of the Subscription Process (this excludes short-term surplus sales made after the Subscription Process is completed),

(d) Less BPA's Capability from All Resources Available to BPA, Including Planned Purchases and Inventory Solution Purchases

Less BPA's sustained 6-hour⁸ peak capability from all resources available to BPA, including the firm resource capability of the FBS excluding forced outages, and

Less BPA's other planned purchases and Inventory Solution purchases;

(3) BPA Cannot Purchase the Needed Power

(a) Cost of Power Not Considered

The cost of power will not be considered in determining whether power is available and

(b) Proffer of Sale by Participant

Upon notification of a Buy Back situation a Participant may offer to sell BPA its Surplus Slice Entitlement subject to a price cap (indexed to "X" – for example, X could be the Dow Jones); BPA cannot exercise Buy Back from a Participant to the extent that such Participant has offered to sell Surplus Slice Entitlement to BPA or to the extent that BPA has actually purchased such Surplus Slice Entitlement from such Participant;

⁸ Customer's have proposed a different basis than 6 hours for computing the sustained peak capability. BPA will continue to work with the customers during the set up and testing phase to determine the appropriate basis.

and

(4) Prior Notification

BPA has given seven days notice of the possibility of buying back energy or capacity and identified the days on which BPA believes it might exercise a Buy Back. This notice is not a commitment that BPA will exercise its right, but rather that it may exercise its right.

C. Buy Back Limits

Buy Back will be limited to the lesser of (i) BPA's other Northwest firm commitments that cannot be met or (ii) the Participant's Surplus Slice Entitlement less any such capability that a Participant has declared as reserves and is currently using as reserves.

D. Buy Back Storage Account

(1) Buy Back Storage Account

BPA will establish and maintain a Buy Back Storage Account for each individual Participant.

(2) Credits

When BPA buys back energy from a Participant, BPA will credit the amount of such energy to the Participant's Buy Back Storage Account in terms of megawatt-hours.

(3) One Year and Not Spillable

BPA will maintain each Buy Back Storage Account on a first-in, first-out basis. A Participant will have the ability to withdraw energy that has been credited to its Buy Back Storage Account for a period of one year after such credit was made.

(4) Withdrawals

The Participant may take energy from the Buy Back Storage Account for any reason; *provided* withdrawals may not be made when all of the Buy Back conditions set out above are met or when the withdrawal of such energy would cause all of the Buy Back conditions set out above to be met. A Participant who is withdrawing energy from its Buy Back Storage Account shall first use the energy, to the extent necessary, to serve its then-existing unmet Net Requirement.

(5) Cash Out

BPA shall cash out energy that remains in a Participant's Buy Back Storage Account one year after it has been credited at the simple-average annual-energy PF Rate.

(6) Rate limit

A Participant may withdraw energy from its Buy Back Storage Account at a rate not to exceed the difference between its Maximum Slice Entitlement, assuming all planned units are operating, and its Maximum Slice Entitlement. Withdrawals shall be by schedule only, not by direct signal.

(7) Effect of Buy Back on a Participant's Virtual System Storage Account

The energy that BPA buys back and credits to the Participant's Buy Back Storage Account is counted against the Slice Storage Account as if the Participant took it. Energy taken out of the Buy Back Storage Account has no effect on the Participant's Slice Storage Account since it has already been debited from said account.

E. Payment for Buy Back

(1) Demand Charge to be Paid by BPA

When BPA buys back a Participant's energy and capacity, BPA will pay the Participant a demand charge (the daily demand rate) on the maximum hourly amount of capability and energy that BPA purchases for each day a Buy Back occurs. When BPA buys back energy, such energy will be deposited into the Buy Back Storage Account.

(2) Demand Charge to be Paid By Participant

When a Participant withdraws energy from its Buy Back Storage Account, it will pay BPA a demand charge (the daily demand rate) on the maximum hourly amount of energy that such Participant withdraws for each day energy is withdrawn. The maximum permissible rate of withdrawal is set forth above.

F. Buyback Procedures

(1) Daily Test for Buy Back Conditions

Each prescheduling day, BPA will test to determine whether there is a projected Buy Back situation within the next eight to 15 days.

(2) Data Exchange

To assist in determining whether Buy Back conditions are met, Participants shall annually provide BPA with monthly firm resource and 6-hour sustained peak capability exhibit or, for Participants without resources, an exhibit detailing the non-BPA energy that will be used to meet their firm load, as well as an assured capability exhibit showing by month the Participant's average energy and 6-hour sustained peak capability.

(3) Process for Determining Which Participants BPA Buys Back From

When BPA provides notice of a Buy Back situation, Participants may volunteer to participate in the Buy Back. If there is not sufficient capability volunteered, BPA will schedule Buy Back from those Participants with the greatest Surplus Slice Entitlement.

(4) Buy Back Scheduling Provisions

Buy Back shall be handled on a prescheduled basis; *provided* a Participant can modify a Buy Back preschedule up to 30 minutes before the hour based upon a system firm load increase on the Participant's system.

(5) Implementing Buy Back Through Direct Signal

If a Participant is signaling its Slice schedules, BPA will implement a Buy Back for such Participant by establishing a schedule of Buy Back capabilities (the Participant's Surplus Slice Entitlement that BPA is buying back). BPA shall reduce the maximum and minimum entitlement signals according to the schedules in effect each hour. The schedules will also be used in determining the demand charge to be paid by BPA to the Participant for the day. BPA shall calculate the energy to be credited to the Buy Back Storage Account for each hour after-the-fact by taking the lesser of the Buy Back capability scheduled for the hour or the Participant's request for Slice Entitlement (the request signal) less the Slice Entitlement actually delivered (the return signal) integrated over the hour. Additionally, BPA will maintain all records of the schedules for Buy Back capabilities and energy stored in the Buy Back Storage Account.

G. *Other Things to Address*

1. *BPA is considering interplay between Buy Back and reserves.*
2. *We need more clarification on what types of power contracts will be considered part of a Participant's Native Firm Load.*
3. *What parts of Buy Back are appropriate subjects for dispute resolution?*

X. General Contract Provisions

A. Uniform Terms and Conditions

All Slice contracts will have the same basic terms and conditions for each Participant except for the selected Slice Percentage, the combination of the Slice with a firm block purchase, the election to participate or not in a Federal Base System Resource replacement, elections made as to the type of scheduling, the type and detail of system information and other administrative choices made or negotiated between BPA and the customer, appropriate billing based on the choices made and the combination of this service with other BPA products, and information pertaining to the Participant. Over time, if a Participant elects to purchase power from resources that BPA has acquired as replacements for the FBS as described in subsection VI(d) above, what Federal System Resources are considered as part of a Purchaser's "Slice System Resources" and are included in its "Slice System" may vary.

B. Contract Implementation Group

(1) General

BPA and each Participant shall designate a representative to a Contract Implementation Group ("CIG"), which will meet on an as-needed basis. The CIG will be responsible for formulating and establishing implementation details not defined by the Slice Contracts. The CIG will be the main forum for Participants to discuss their concerns and issues. The CIG will not have the authority to make binding decisions or amend any Slice Contract provisions.

(2) Voting Procedures

Changes or additions to implementation details proposed to the CIG will be adopted when approved by BPA and a 2/3 majority of the Participant representatives [*or unanimous approval?*]. Any modification of contract terms will require mutual consent between BPA and the Slice Purchaser.

C. Renewal Provision

There will not be a renewal provision in the Slice Contracts.

D. [Assignment Provisions](#)

The Slice Contracts will contain an assignment provision permitting assignment to a qualified purchaser with the consent of BPA.

E. [Conversion](#)

A Slice participant may request and receive other power products from BPA to serve its net requirements load under the same rates, terms, and conditions as other preference customer requirements loads which had continuously received service from BPA commencing on October 1, 2001 upon the occurrence of any of the following events:

(1) If, by the action of a third party, the Slice contract, or the performance of such contract, is held to be invalid or unenforceable, or enjoined by a final order of a court, and such order is not stayed, pending any appeals, then the Slice participant may terminate the Slice contract upon 30 days' written notice to BPA; or

(2) The Slice contract expires according to its terms.

XI. Dispute Resolution

A. [Slice Dispute Resolution Process](#)

Any Participant wishing to invoke dispute resolution shall first bring the matter in dispute to the CIG. The CIG shall take prompt steps to seek a mutually agreeable resolution of the dispute. Such steps may include the appointment of a technical panel to help resolve the dispute. The actions of the CIG regarding any dispute shall not be introduced as evidence in any subsequent dispute resolution process.

The dispute resolution provisions for Participants will be different than the general dispute resolution provision for other Subscription Contracts since the Slice Product is indexed to Slice System Capabilities and is not load dependent. For purposes of dispute resolution, BPA will agree to mediation of any dispute. BPA will agree to a one-time election by the Slice customer of either litigation or binding arbitration. If binding arbitration is selected, the arbitration provision will limit the arbitration to specific topics such as mistakes in the provision of information to the Participant, errors in the billing or true up charges, as stated below. It will also specify the manner, timing, initiation, and recourse for the

arbitration. Litigation will be in federal court having jurisdiction.

B. [Federal Operational Decisions Not Subject to Arbitration](#)

Federal agencies' decisions and actions relating to the operations of Federal System Resources that are also Slice System Resources are not subject to dispute resolution.⁹

C. [Scope of Dispute Resolution](#)

The Participants may only address the following matters in dispute resolution: (i) what items were or were not included in the true-up, (ii) Slice System Storage Account errors, and (iii) errors in the amount of power that was scheduled (including whether there was intentional misrepresentation of operating requirements that resulted in unnecessary limitation in power deliveries). A Participant may not raise errors in forecasts as a subject for dispute resolution.

XII. Accounting

A. [Development and Testing of Slice System Storage Accounting Algorithm](#)

The following sections set forth a method for implementing the technical aspects of the Slice product. BPA and the parties will continue their efforts during the Subscription process to streamline and simplify the methodology for implementing the Slice product.

BPA will establish and maintain for each Participant a Slice System Storage Account (“SSA”) in order to determine if each Participant is staying within the limits of the “Slice System Capability” to store energy and later release stored energy. Given the unique nature and application of this storage account, BPA will work with the Participants to determine the best approach and application of a storage accounting system. Given that BPA would propose as a starting point the following methodology. The SSA, unlike a normal storage account, will not be measured in absolute terms (from full or empty), rather, the SSA will be measured in energy (MW-Months) relative to a pass inflow condition. For example, if a Participant requests (and receives) energy that can be produced from its “Slice System” given natural streamflows only, then there is no change to its SSA.

⁹ The Corps of Engineers and the Bureau of Reclamation are in charge of operating the reservoirs and they are not interested in having arbitrations based on reservoir operations.

The algorithm for the SSA will be developed and tested prior to October 1, 2001. The Participants will participate in this process.

B. Maintenance of Slice System Storage Account Activity

BPA will maintain each Participant's SSA and update it each normal weekday as follows. BPA will send the update to the Participants each time the account is updated.

(1) Account Balance at the Start and Finish of the Contract

At the start of the Slice Contracts, BPA will initialize each Participant's SSA to zero. It will be each Participant's responsibility to return its account balance to zero by the end of the Contract unless actual system requirements (nonpower requirements) force a deviation from zero.

(2) Measurements for Account Balance

BPA will maintain for each Participant and the aggregate "Slice System" (for all Participants as well as PBL) a SSA in terms of MW-months. The aggregate system shall be used to calculate the storage limits that will then be imposed on each Participant's SSA. BPA will start each Participant's SSA at zero and calculate a change in each Participant's SSA for each day based on the difference between the generation from forecasted natural streamflows and the Participant's requested energy. The SSA is subject to adjustments for water to energy conversion efficiencies, spill, and other operational considerations.

(3) Maintenance of Slice System Storage Account Within Maximum and Minimum Storage Limit

The SSA must always be within the maximum and minimum storage limits that BPA will continually update. BPA will calculate the storage limits using the aggregate Slice System's SSA and translate the storage limits to each Participant's SSA using an algorithm to be developed in the future.

(4) Updates of Maximum and Minimum Balances

BPA will update each Participant's hourly maximum and minimum SSA balances for the next preschedule day(s). HLH and LLH maximum and minimum limits will be projected out for 7 to 10 days and will be based on

the then-known power and nonpower requirements.

(5) Balances Outside of the Maximum and Minimum Bounds

If a Participant's SSA goes above the maximum bounds, BPA will keep the account at the maximum limit and any excess will be considered spilled (even if no physical spill takes place). If it goes below the minimum bounds, the Participant will pay an Unauthorized Increase Charge (to be developed in the relevant rate case). If a Participant's SSA is out of bounds as a result of a BPA forecasting error, there shall be a grace period for the purpose of the Participant managing its account and getting it back within bounds without penalty.

(6) Slice System Storage Account to Handle Physical Energy Transactions Associated with "Slice System Resources"

In addition to the energy resulting from the resource operation, the Participant's SSA will also handle the physical energy transactions associated with the Federal System Resources that are also "Slice System Resources" such as provisional draft energy and NTS.

C. Determination of Slice System Energy Capabilities

(1) Hydro-Energy Capabilities Based on Individual Slice System Storage Account Balances

For purposes of taking delivery of energy, the "Slice System's" hydro-energy capability for each Participant will be based on that Participant's SSA balance. This takes into consideration head gains or losses that result from each Participant's operation of its SSA and allows the effects of energy purchases and sales to be isolated to the responsible Participant.

(2) For Purposes of this Subsection, Power Business Line Considered Participant

For purposes of determining "Slice System" energy capabilities, PBL will be considered a Participant.

(3) Calculation of Participant's Slice Entitlement

For each hour, BPA shall calculate for each Participant its Slice Entitlement based upon a percentage of the total "Slice System" energy capability less all System Obligations.

(a) Use of Slice Entitlement to Be Determined with Reference to "Slice System"

BPA shall set the "Slice System" initial storage condition based on each Participant's SSA balance. The capabilities of the "Slice System" shall be ratably reduced to reflect the Participant's percent share. This means that if a Participant with a 10% share wants to increase the next hour's schedule by 50 MW, then the "Slice System" will need to be able to increase by 500 MW for the next hour to accommodate the change. The hourly rates of change shall also be based on each Participant's SSA balance.

(b) Distribution of Storage

Distribution of storage among the "Slice System Resources" is set to the actual distribution of storage. For example, if a Participant had in its SSA 50% of the storage that the corresponding actual system had in the composite SSA, then each "Slice System Resource" initial content would be reduced to 50% of its actual storage content.

(c) Calibration of Energy Capabilities

BPA will calibrate the forecasts of energy capabilities so that the sum of the parts equals the whole. BPA will ratably adjust the forecast of each Participant's Slice energy capabilities (generation from natural flows, maximum generation, minimum generation, maximum and minimum rate of generation change) so that the sum of all of the Participant's Slice capabilities equals the forecasted actual capabilities of the "Slice System".

(d) Initial Methodology of Calculating Energy Capabilities; Subsequent Efforts

BPA will initially calculate “Slice System” energy capabilities on a conservative basis with a minimum of effort in a manner agreed to by all of the Participants. The non-BPA Participants will decide jointly if additional effort and expense will be expended to get more accurate forecasts of capabilities. Since the Participants pay for this they will be the ones to determine the point of diminishing returns of additional precision; *provided* BPA agrees that whatever methodology is ultimately used results in sound forecasts for the “Slice System” Capabilities.

(4) Estimation of HLH and LLH Entitlements

BPA will estimate HLH and LLH entitlements for the 7 to 10 days using the 8-hour block forecasts using a hydro-regulation simulation used to create BPA's 30-day Forecast.

(5) Hourly Estimates

BPA will use the 30-day model in combination with an HOSS-type adjustment to determine hourly estimates for the preschedule day(s).

XIII. Scheduling Provisions

A. Communication of Slice System Capabilities

[BPA will provide an exhibit after the issues of determining capabilities/accounting has been resolved.] PBL will keep the Participants updated via E-mail on current non-power constraints on the “Slice System Resources”. BPA’s real-time scheduler will also notify the Participants of anything that impacts their rights on real-time and it will be up to the Participant to change their preschedule if needed to stay within the new maximum and minimum bounds.

B. Prescheduling/Direct Signaling

The Participant is limited to prescheduling its Slice Entitlement until such time as all parties are satisfied that the algorithm is running properly. At that point, those Participants that want to have their Slice Entitlement delivered by a signal will work with PBL to set that up. Using a signal will be solely at the signaling Participants’ cost.

C. Changes to Preschedules

A Participant may change its Slice Entitlement preschedule for any reason up to 30 minutes prior to delivery of such Entitlement but must stay within the “Slice System” limits (rate of change, maximum and minimum bounds) established for that hour.

D. Permissible Real-Time Changes

A Participant may make real-time changes to its Slice Entitlement preschedule less than 30 minutes before the hour for the following limited reasons:

(1) Outage of a “Slice System Resource” Unit

A “Slice System Resource” unit that was actually generating energy has an outage;

(2) Outage of a Participant’s Resource or Force Majeure of Firm Contract

A nonfederal Participant’s system unit that was actually generating energy has an outage or a Participant is not able to take energy pursuant to a firm contract given a force majeure situation;

(3) Limits on Real-Time Changes

The outage of a resource on either the “Slice System” or an individual Participant’s system is not intended to allow carte blanche on changes to the preschedule. The maximum change allowed in the hour will be the Participant’s share of the “Slice System” outage or the magnitude of the outage on the Participant’s system that the Participant was actually getting generation from at the time of the outage. Such change must also stay within the maximum and minimum bounds (as adjusted for any unit changes on the “Slice System”) available to the Participant.

(4) Use of Slice Entitlement for Outage Reserves

A Participant may use its Slice Entitlement for outage reserves consistent with (E) below.

E. Reserves for Participants

(1) Reserve Obligations Associated with Participant Capacity

Participants are responsible for providing for all contingency reserve requirements associated with the operation of their “Slice System” capacity. This is presently equal to 7% of their share of thermal generation plus 5% of their remaining generation schedule. If industry standards for operating reserves change, the specifics of this requirement may need to change to remain consistent.

(2) Participants’ Use of their Slice Capacity as Operating Reserves

Participants may, subject to the TBL's approval, use their Slice capacity as regulating margin, spinning reserves, and non-spinning operating reserves. Participants must preschedule their use of Slice capacity as regulating margin, spinning reserve, and non-spinning operating reserve. The purpose of this requirement is to ensure that it is physically possible for the “Slice System” to provide the anticipated reserves at the prescheduled generation levels. BPA will develop maximum limits upon the amounts of regulating margin, spinning reserves and non-spinning operating reserves that can be provided from a Slice Entitlement. These limits will be dependent upon the total amount of energy that the Participant schedules from its Slice Entitlement.

(3) Loss of “Slice System” Capacity in Real Time

BPA will notify Participants when “Slice System” capacity is lost during the hour of delivery. Over the next 60 minutes, the Participants’ energy needs will be supplied up to their original limits for up to 60 minutes. BPA will provide the necessary capacity from operating reserves within the BPA control area and the Northwest Operating Reserves Sharing Program, as required. The Participants will be responsible for either purchasing or returning the energy delivered, as directed by the supplying entities. If the “Slice System” capacity has not been returned to service prior to 60 minutes after the capacity loss, the Participants’ maximum Slice Entitlement will be proportionately reduced until this capacity comes back into service. If a Participant’s schedule is outside of these new limits, then the Participant must adjust its schedules as required to bring it within these limits.

I. Other Things to Address

- (1) *Need to get some detail on the scheduling protocols.*
- (2) *Transmission.*

The Slice Product is different from other products being offered by BPA in that the power delivered to the purchaser is indexed to the generation of the FCRPS. Due to the nature of the Slice Product, the Participant will not be able to predict with certainty either the quantity of power that may be delivered, nor the Federal resources actually used to generate such power. The delivery of the Slice Product presents transmission issues that are currently unresolved. To deal with this uncertainty, the contract for the Slice Product will include provisions that will allow the adjustment of the Slice purchase obligation in light of the resolution of outstanding transmission issues, which provisions will be subject to the mutual agreement of BPA and the Participant.

XIV. Reflecting Slice in the Rate Case

This section is for illustrative purposes only and does not predetermine the outcome of the rate case.

A. Items to be Determined in the Rate Case

- (1) Net Cost of Inventory Solution

Estimates of expenses including the net cost of the Inventory Solution (becomes the basis of a Participant's monthly payments);

- (2) Unauthorized Increase Charge

Rate for the Unauthorized Increase Charge; and

- (3) Other?

Other items?

B. [Inapplicability of CRAC](#)

A Participant's responsibility for costs of the Slice System will not be subject to CRAC since irrespective of CRAC a Participant will already be paying a portion of the Slice System's actual costs. If a Participant were also taking a flat block under Partial Requirements, that block would be subject to CRAC.

C. [Avoidance of Cost Shifts](#)

BPA will develop Slice so as to avoid a cost shift.

D. [Energy Purchases/Net Revenues for Risk](#)

In any relevant rate case, energy purchases and Net Revenues for Risk should be decreased in the same proportion as the percentage of Slice purchases that are assumed.

XV. Slice in Combination With Other Subscription Products

A. [Blocks of PF Energy](#)

The Participant can also purchase an annual block of PF energy from BPA and/or negotiate for monthly [variable/shaped] blocks of energy (under the FPS rate).

B. [Slice Cannot be Combined with Actual Partial Purchases](#)

A Participant may not combine a slice purchase with an actual partial purchase.¹⁰

C. [Limit of the Total Requirements Purchased](#)

For any slice purchaser, the sum of the net requirements loads used to calculate the Slice eligibility and any other block requirements product shall not exceed the total net requirements of such Participant.

¹⁰ If this were allowed, the Participant would be able to lay off to BPA some of the risk they took on through Slice by making an offsetting adjustment in their actual partial schedule. This concern becomes magnified when the Participants use direct signals and when considering Participants in BPA's load control area. It must be remembered that the same resources that deliver the actual partial schedule are the same resources that deliver the Slice Entitlement and that the customer is attempting to maximize their rights under both contracts at the same time.

It is anticipated that the customer may experience load growth over the term of the Slice contract. Load growth is not covered by the Slice product, therefore when the Slice purchaser wants to supplement Slice within the term of the Slice contract with a block requirements product BPA may limit the amount of block requirements to exclude a portion of the load growth. The amount of load growth that will not be permitted will be calculated as the product of the total load growth since the start of the Slice contract and the ratio of the customer's elected Slice percentage to the customer's maximum Slice percentage.

D. [Required Purchase of Energy Imbalance Services](#)

Since the Slice Contract does not guarantee to follow a Participant's load, a Participant in BPA's load control area must insure that energy imbalance services or an equivalent product are provided for the duration of the Slice Contract. .

XVI. Joint Management of Slice Entitlement

Because the Slice Product is a sale of firm power to meet a customer's net firm consumer load on an annual planning basis, BPA will apply the same policy to the Slice Product regarding its sale as BPA has applied to its other firm requirements products. BPA will understand its net firm load obligation to a customer whether sold as Slice or not as individual to that customer and sold for use in that customer's load. Net firm load requirement power is intended and must be used by the customer to meet its consumer load. It is not power to be resold at wholesale on the market but it may be exchanged and later taken into load.

XVII. Stay flexible!!

TBL requirements or actions by other parties (*i.e.*, FERC) could result in the Slice accounting being reservoir specific and generation being delivered to the Participant from each "Slice System Resource" instead of the "Slice System". We don't know what may happen in the next 13 years so we must build the accounting system to handle the various possibilities.

Resources Under Slice

All units of the resources listed below will be assumed to be included in Slice unless otherwise noted. The actual hour to hour capability of the resources listed below will be a function of a number of factors such as nonpower constraints, streamflows and unit capability. Such capability will be calculated as described in the body of this agreement.

Hydro Resources

Detroit	Lookout Point	Hill Creek
Cougar	Green Peter	Foster
Lost Creek	Black Canyon	Boise Diversion
Minidoka	Palisades	Anderson Ranch
Roza	Chandler	Big Cliff
Dexter	Hungry Horse	Albeni Falls
Libby	Grand Coulee	Chief Joseph
Wanapum (only the share associated with the Service and Exchange Contracts)	Priest Rapids (only the share associated with the Service and Exchange Contracts)	Dworshak
Lower Granite	Little Goose	Lower Monumental
Ice Harbor	McNary	John Day
The Dalles	Bonneville	Cowlitz Falls
Idaho Falls	Chief Joseph Encroachment	Mica (only the Treaty storage rights, no energy)
Arrow (only the Treaty storage rights, no energy)	Duncan (only the Treaty storage rights, no energy)	Non-Treaty Storage

Thermal and Miscellaneous

WNP2	GEM State	Wauna
CARES Columbia Wind #1		

COST OF SERVICE ANALYSIS TABLE FROM 1996 RATE CASE

Routing: MPPD
Date: Dec 01, 1998
Time: 10:18

COST OF SERVICE ANALYSIS
Itemized Revenue Requirement
(\$ Thousands)
Fiscal Year 1997

	A	B		D	E	F	G
	Investment Base	Net Interest		Operating Expenses	Total	Adjustments	Adjusted Total
1	GENERATION COSTS						
2	Federal Base System						
3		153,827		295,463	540,540		540,540
4		4,692		119,915	127,107	(71,954)	55,153
5		0		19,547	19,547	0	19,547
6		0		168,104	168,104		168,104
7		0		326,536	326,536		326,536
8		0		153,720	153,720		153,720
10	Total	158,519		1,161,894	1,414,163	(81,927)	1,332,236
11	New Resources						
12		0		13,620	13,620		13,620
13		0		4,950	4,950		4,950
14		0		14,408	14,408		14,408
15		0			0		0
16	Total	0		32,977	32,977	0	32,977
17	Residential Exchange Costs /4						
18		40,306		100,723	169,779	0	169,779
19					(13,046)		(13,046)
20	Other Generation Costs						
21		468		106,740	109,708		109,708
22		0		3,086	3,086	0	3,086
23						0	0
24	Total	468		109,826	112,794	0	112,794
25	Total Generation	199,293	125,000	1,405,514	1,716,761	959,631	2,676,392
26	TRANSMISSION COSTS						
27		0	0	299,500	299,500		299,500
28							
29	Total Transmission	0	0	299,500	299,500	0	299,500

Notes:

1/ Slice is subject to all costs listed above with the exception of shaded costs, which include Balancing Power Purchases (row 9), Planned Net Revenue for Risk (column C), and Transmission Costs (rows 26-29).

2/ Slice will be subject to certain "System obligation" transmission costs, which include transmission for GTAs, Canadian Entitlement return, Mid Columbia Hourly Coordination transactions, & PNCA transactions.

3/ Slice also subject to these non-COSA costs. PF Rate Conservation Credit Costs, PF Rate Impact Mitigation Costs, PF Rate Low Density Discount Costs, and Subscription Augmentation Costs (Net).

4/ These cost will have to be updated for the net cost of Exchange that comes out of Subscription.