Tiered Rate Methodology Rate Case

DIRECT TESTIMONY

May 2008

BPA Exhibit No.	Witness
TRM-12-E-BPA-02	Cherry, Bliven, Wilson
TRM-12-E-BPA-03	Bliven, Homenick, Lee, Lovell
TRM-12-E-BPA-04	Roberts, Bliven, Lee, Misley, Schiewe
TRM-12-E-BPA-05	Stene, Davis, Warner, Wilson
TRM-12-E-BPA-06	Fisher, Bliven, Bolden, Chalier, Lee
TRM-12-E-BPA-07	Gustafson, Bliven, Hirsch, Thompson
TRM-12-E-BPA-08	Lovell, Johnson, Lee

BONNEVILLE POWER ADMINISTRATION

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TESTIMONY of

DIANE CHERRY, RAYMOND D. BLIVEN, and SCOTT K. WILSON

Witnesses for Bonneville Power Administration

SUBJECT: POLICY OVERVIEW

Section 1: Introduction and Purpose of Testimony

Q. Please state your names and qualifications.

A. My name is Diane Cherry, and my qualifications are contained in TRM-12-Q-BPA-04.

A. My name is Raymond D. Bliven, and my qualifications are contained in TRM-12-Q-BPA-01.

A. My name is Scott K. Wilson, and my qualifications are contained in TRM-12-Q-BPA-19.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to sponsor the Tiered Rate Methodology (TRM), TRM-12-E-BPA-01. We provide an overview of the TRM and discuss the background policy and context underlying the TRM; describe the relationship between the TRM and the Regional Dialogue Contracts; and discuss criteria, conditions, and processes for TRM change or re-opening. This testimony makes use of defined terms in the Tiered Rate Methodology (TRM); *see* TRM pages v-xvii.

Q. How is your testimony organized?

A. Our testimony is organized in 9 sections. Section 1 is this introduction. Section 2 discusses background and context for the TRM. Section 3 discusses the concept of tiered rates. Section 4 discusses the relationship between the TRM and power sales contracts. Section 5 discusses the relationship between the TRM and relevant rate cases. Section 6 discusses the evolution of the rate design presented in the TRM. Section 7 discusses the rate design principles on which the TRM is based. Section 8 discusses other rate design

issues, such as those related to the Slice product, service to BPA's DSI customers, and the section 7(b)(2) rate test. Section 9 discusses TRM sections 12 and 13.

Section 2: Background

Q. What is the purpose of the TRM?

A. The purpose of the proposed TRM is to establish the rate design and cost of service allocations necessary to implement the Long-Term Regional Dialogue Final Policy (Policy), issued in July 2007. The rate design and cost allocations would be applied in each Northwest Power Act section 7(i) rate proceeding over the term of the Regional Dialogue contracts. The rate design aspects of the Policy, as implemented in the TRM, are subject to final determination in this section 7(i) rate proceeding. The TRM gives direction on how to determine rates. The proposed TRM is designed to provide assurance about how BPA's costs would be allocated in a manner that would preserve the value of the existing Federal system and protect that benefit from the costs of additional service for customers' load growth. As proposed, the TRM is intended to provide a predictable and durable means by which to tier BPA's Priority Firm Power (PF) rate, beginning in FY 2012.

Q. What do you mean by predictable and durable?

A. The TRM would establish a rate design where the costs of the existing Federal system resources would be allocated to particular Cost Pools and recovered in total. The TRM also describes how the costs in each Cost Pool can change over time.

BPA intends to seek Federal Energy Regulatory Commission (FERC or the Commission) approval of the TRM for a term concurrent with the new Regional Dialogue power sales contracts. *See* TRM section 11.

Q. What specific goals of the Policy would be achieved through the TRM?

A. The Policy at 5-7 identified a number of goals to be achieved through the contracts and rates. Those applicable to this TRM are:

Promotion of Regional Electric Infrastructure: Promotion of regional electric infrastructure in order to ensure a reliable future power supply and to avoid excessive market price volatility. As stated in the Policy,

> "[d]efining the amount of power each customer is eligible to purchase from BPA at the lowest-cost Tier 1 rate (the HWM [High Water Mark]) will allow utilities to move forward with plans to meet their additional or new load by developing their own resources or purchasing additional power from BPA at a potentially higher Tier 2 rate."

Low and Stable BPA Tier 1 Power Rates: Low power rates are one of BPA's most important contributions to the regional economy. The Policy will help maintain low and stable Tier 1 power rates by minimizing to the extent possible the amount of resource Augmentation costs included as part of the Tier 1 rate.

Enhanced BPA Financial Stability and Assurance of Treasury Payments: A low and stable Tier 1 rate created by changing BPA's past practice of acquiring new power and melding its costs with those of the existing system would greatly reduce the financial uncertainty that occurred when BPA power rates rose due to the inclusion of incremental resource costs. This rate stability should significantly reduce future risks to BPA's ability to make its Treasury payments.

Accomplishment of Conservation and Renewable Resources: Tiered rates and HWMs would create "powerful economic incentives" for customers to develop conservation and renewable resources. The TRM describes the pricing construct that would be used for support services that customers will need to

integrate intermittent renewable resources, such as wind, to serve their retail loads.

Q. What is accomplished by tiering the PF rates?

A. We believe that by tiering the PF rates BPA would be able to preserve the value of the existing Federal Base System. The costs of new resource acquisitions (except for specific, limited Augmentation as set forth in the section II of the Policy and described in TRM section 3) would be allocated to Tier 2 Cost Pools, not to Tier 1 Cost Pools. Tiering the rates would create cost transparency by reflecting the cost of incremental resources incurred by BPA to serve customers' above-HWM load placed on BPA. Allowing customers to transparently see the costs of BPA's future resource acquisitions to meet their load would allow customers compare the economics of both BPA's and their own resource acquisition choices. In addition, customers who choose to use their own resources to meet above-HWM load would avoid paying the costs of BPA acquisitions to meet the above-HWM load of other customers who purchase such power from BPA. Section 3 of this testimony further describes the tiered rates construct.

Q. When would the proposed TRM rate design take effect?

A. The first rates established pursuant to the TRM would take effect in the FY 2012-2013 Rate Period.

Q. If the first rate case that would apply the rate designs established in the TRM is three years away, why are you conducting this section 7(i) proceeding now?

A. BPA's Subscription power sales contracts expire on September 30, 2011. We expect to offer new 20-year CHWM Contracts to follow the Subscription contracts in August 2008. To make informed choices necessary to develop resources, BPA and customers need long-term certainty about the service provided under these CHWM Contracts. An important part of that certainty is establishing long-term rate design certainty that would be applicable to power sold by BPA under those contracts. Customers will be asked to

execute their CHWM Contracts in the fall of 2008. Because the contracts would provide service from FY 2012 through FY 2028, it is crucially important that the rate design be as stable as possible over that same period. In order to make informed decisions, customers need to understand the rate construct that will apply to their cost of service under these contracts.

Q. Are you proposing to set actual rate levels now?

A. No. We are not proposing to determine specific costs or rate levels applicable to power that will be sold under these contracts in this TRM rate proceeding. Rather, the specific rate levels would be developed, consistent with the TRM, in the respective section 7(i) rate proceedings during the term of this TRM.

Section 3: Tiering: What It Is and What It Is Not

Q. What do you mean when you use the term "tiering"?

A. When using the term "tiering," we mean the process of segregating and allocating separately the costs associated with existing Federal resources (Tier 1 Costs) and the costs of future resources (Tier 2 Costs). This design means that BPA would no longer meld the costs of future resource acquisitions with the costs of the existing Federal system. The result is that the PF rate would have both Tier 1 Rates and Tier 2 Rates based on different Cost Pools.

Q. What future resource acquisition costs are you referring to that would be Tier 2 Costs?

A. We are referring to the cost of any additional resources and associated support services required to meet the above-HWM load on BPA. The TRM also identifies some very specific circumstances where certain future resource acquisition costs would be included in Tier 1 Costs; *see* TRM sections 3.2 and 3.4.

Q. Under the TRM, are you proposing to allocate the output of the Federal resources among customers?

A. No, we are not proposing to allocate the output of the Federal resources among customers. Rather, under the TRM we are proposing to allocate the costs of resources. This is a very important distinction. BPA will continue using the entire Federal system resources to meet all of its regional customers' loads with firm power without distinction between the proposed rate tiers.

Q. What resource costs would be used in setting the Tier 1 Rates?

A. The costs of a specific set of Federal system resources, identified as Tier 1 System Resources, would be allocated to the Tier 1 Cost Pools. *See* Roberts *et al.*, TRM-12-E-BPA-04 and TRM section 3 for a description of Tier 1 System Resources. These forecast costs would be the basis for Tier 1 Rates. Similarly, Tier 2 System Resources costs would be assigned to the Tier 2 Cost Pools and would serve as the basis for Tier 2 Rates.

Q. How would BPA decide the amount of power a customer could purchase at Tier 1 Rates and how much at Tier 2 Rates?

A. The Policy establishes the basic steps for the calculation of High Water Marks, which would be used to determine how much requirements power each customer can purchase at Tier 1 Rates. There would be several types of HWMs established for each customer; the most important are the Contract HWM (CHWM) and the Rate Period HWM (RHWM). The specifics of how the various HWMs are determined are discussed in TRM section 4 and in Stene *et al.*, TRM-12-E-BPA-05.

Q. Briefly describe the CHWM and RHWM.

A. The CHWM for each customer would be based on each customer's Measured FY 2010 Load adjusted for several factors and net of its Existing Resources. The CHWM would

establish each customer's baseline eligibility to purchase an amount of power at Tier 1 Rates.

The RHWM, which would be calculated for each Rate Period, would adjust the amount of power a customer could purchase at a Tier 1 Rate during that particular Rate Period based upon changes to the forecast firm critical output of Tier 1 System Resources. A customer could purchase an amount of power up to its RHWM at Tier 1 Rates but would be limited to its Net Requirement if the customer's Net Requirement was less than its RHWM. Any forecast power purchase from BPA for above-RHWM load would be charged a Tier 2 Rate(s). *Id.*

Q. *When you talk about Tier 1 (or Tier 2), are you talking about products?*

A. No. We expect BPA will offer a single requirements power sales contract—the CHWM Contract—to each customer to serve its Net Requirement with Federal system power. Each customer would have a choice of the products BPA would offer—Load Following, Block, and Slice/Block. Without respect to which product a customer chooses, the customer would be able to purchase power up to its RHWM at Tier 1 Rates. In addition, we expect BPA to offer several Tier 2 Rate Alternatives, which would have certain contractual requirements, such as notice provisions or agreements associated with the Tier 2 Rate Alternatives.

Q. *Why do you believe it is important not to allow costs to shift among Cost Pools?*

A. We believe that customers would benefit from not having costs shift among the various Cost Pools. Keeping Cost Pool costs separate would provide customers with rate stability and certainty. To ensure that costs would not shift between the Cost Pools requires both the specified cost allocations detailed in the proposed TRM and contractual commitments on the part of customers. Thus, it would be fundamental that BPA perform the correct cost allocations and that customers meet their contractual obligations. We also believe keeping Cost Pool costs separate would result in sending

more efficient and effective price signals, which would lead to more cost-effective resource decisions by BPA and its customers.

Q. Would Tier 2 Rates be limited to only a customer's load growth served by BPA?

A. No. The Tier 2 Rate should not be equated with Federal power that would be used to serve only a customer's load growth. Although load growth is expected to be the largest component of above-RHWM load, it would be possible for a customer without load growth to be faced with a situation of purchasing at Tier 2 Rates. The firm critical output of Tier 1 System Resources may decline output in the future. Such a decline in output would reduce customers' RHWMs, resulting in increased exposure to Tier 2 rates. In this case, the proposed TRM rate design would allow customers to more clearly see BPA's costs of replacing some or all of the decreased firm critical output of Tier 1 System Resources. BPA would serve some of the region's load growth at Tier 2 Rates, but we also expect customers to develop Non-Federal Resources and apply those to their load.

Q. Would all load growth for Load Following customers be charged Tier 2 Rates?

A. Not necessarily, or more accurately, not immediately. The TRM would establish a process for determining above-RHWM load. Above-RHWM load would be determined by BPA in advance of a Rate Period and would not change during that Rate Period. Once established, the above-RHWM load would not include unexpected load growth during that Rate Period. Also, RHWMs would be limited to an annual energy amount. Therefore, although a customer's load may grow in some months, if it is not growing on an annual basis, the monthly load growth would not be considered above-RHWM load. To address this type of growth in monthly load, BPA would assess the customer Load Shaping rates for the higher monthly loads and provide Load Shaping credits for the lower monthly loads. This would afford customers a measure of certainty as to their costs within the Rate Period. We believe such certainty is appropriate for within a Rate

Period when customers have less flexibility to respond to the kind of price signal that charging a Tier 2 Rate based on incremental cost would provide.

Q. *How would access to power at Tier 1 Rates change if the forecast firm critical output of Tier 1 System Resources changes?*

A. We recognize that the projected firm critical output of Tier 1 System Resources may increase or decrease during the term of the CHWM Contracts. To address these changes, prior to each relevant rate case BPA would forecast the firm critical output of Tier 1 System Resources and use that information to establish RHWMs. The RHWM calculation would start with the CHWM and adjust it up or down based on changes in the forecast firm critical output of Tier 1 System Resources.

Q. *Would a customer always be able to purchase Federal power up to its full RHWM?*

A. No. A customer could not purchase power up to its full RHWM amount if its Net Requirement is less than its RHWM. Within a Rate Period, the RHWM would set a maximum amount of energy available to the customer at Tier 1 Rates, but the total amount of power that a customer could purchase from BPA would be limited by the customer's determined Net Requirement. The value of any unused RHWM would be credited back to all customers purchasing at Tier 1 Rates. *See* TRM section 4.3.

Q. *How would BPA ensure that a customer's decision on how to serve its above-RHWM load does not shift costs to other customers?*

A. To create a basis for parity and comparison among the customer's options on how to serve its above-RHWM load, BPA would sell all power at Tier 2 rates as if it were a flat annual block of energy. This flat annual block would create an economic benchmark to allow comparison among Tier 2 Rate Alternatives and Non-Federal Resources that a customer could choose to serve above-RHWM load. Basing the price of Tier 2 Rate Alternatives on a supply of power shaped in a flat annual block is straightforward and would also reduce BPA's administrative burden. The flat annual block should avoid

future cost disputes and disagreements that could arise under a variably shaped Tier 2 Rate designs.

BPA's Tier 2 Rates would include Resource Support Services, which would account for the financial costs or benefits created by converting the projected output of specific Tier 2 System Resources into a flat annual block. When a Load Following customer chooses to meet its above-RHWM load with its own resources, the same Resource Support Services would be used to convert the projected output of the customer's resource into a flat annual block of power. However, this application of Resource Support Services would be limited to Load Following customers, because the shape or variance of their resource choices would affect the hourly amounts of power BPA sells to the customer. The Load Following customer also may choose instead a non-Federal source to supply RSS-type services. Block and Slice/Block customers' resource choices would not affect the hourly amounts of power BPA sells to the customer, so RSS would not be a mandatory service for these customers. Block and Slice/Block customers may choose to buy stand-alone Resource Support Services for new renewable resources that they dedicate to load, however.

Q. Would BPA tier all of its rates?

A. At this time, we propose to tier only the PF power rate. The tiered PF rate would apply only to power sold under CHWM Contracts. It is not our expectation that BPA would tier the PF Exchange rate, the Industrial Firm Power (IP) rate, or the New Resources Firm Power (NR) rate at this time, but the TRM would not prohibit those rates from being tiered.

Section 4: Relationship Between the TRM and Regional Dialogue Power Sales Contracts

Q. Please describe the relationship between the TRM and the CHWM Contracts.

A. We expect BPA and customers to sign new 20-year CHWM Contracts by December 2008. Under these contracts, BPA will sell power to customers for their Net Requirement for the period FY 2012 through FY 2028. The TRM would establish the rate design approach that BPA would follow when it sets rates during the term of the CHWM Contracts. It also would establish the process that BPA would follow in FY 2011 to calculate a CHWM for each customer. Specific details of the CHWM calculation are discussed in TRM section 4 and in Stene *et al.*, TRM-12-E-BPA-05. BPA would amend each customer's CHWM Contract to include its CHWM in late-FY 2011.

Q. What product choices would BPA offer Publics under CHWM Contracts?

A. BPA would offer CHWM Contracts with three products choices: 1) Load Following, which would meet a customer's hourly loads minus the amount of its firm resources declared and dedicated to be used for its load; 2) Block, which would provide a customer with predefined hourly amounts of power based on the customer's planned Net Requirement; and 3) Slice/Block, which would be based on a planned Net Requirement and combines a Block purchase with a Slice purchase. The Slice portion provides power based on the shape of generation from Tier 1 System Resources.

Section 5: Relationship Between the TRM and Relevant Rate Cases

Q. What do you mean by "relevant" rate cases?

A. We propose that the TRM be in place for the 20-year term of the CHWM Contracts. However, as proposed in the TRM, BPA would commit to establish actual rate levels every two years beginning with FY 2012. By relevant rate case, we mean the specific rate case that BPA would hold to set the rates for each two-year rate period during the term of the CHWM Contracts.

Q. Why are you proposing to conduct rate cases every two years?

A. We believe that it makes sense for a number of reasons.

1) Load forecast risk. Above-RHWM amounts are set based on load forecasts. We believe it is reasonable to set the above-RHWM amounts frequently to correct load forecast error.

2) Market price risk. We are proposing to base certain rate components on market price forecasts (*i.e.*, Load and Resource Shaping Charges). A longer rate period would increase the chances that the forecast price would not align with the then-current market prices.

3) Cost of risk. Because establishing rate levels based on forecast market prices for surplus sales, given the volatility of market prices, BPA's revenue uncertainties would increase the longer any particular forecast is relied upon and the associated risk mitigation could become very expensive. Therefore, longer rate periods generally mean higher rate levels, with more-frequent rate adjustments, such as Cost Recovery Adjustment Clauses or Dividend Distribution Clauses.

4) Slice True-Up Adjustment. Any disputes over the costs included or excluded in the Slice True-Up Adjustment would be resolved in rate cases. Longer rate periods would defer the decision of the proper allocations of costs between Slice and Non-Slice Rates and between Tier 1 and Tier 2 Rates.

5) Average System Costs. We expect utility ASCs will be determined on a two-year basis. Having rate cases on a two-year basis also would keep rates and ASCs synchronized.

Q. Do you anticipate BPA establishing rates for a period other than a two-year Rate Period?

A. Yes. First, the TRM would be applied for 17 years of power deliveries, which does not divide exactly into two-year Rate Periods. BPA has not decided whether at the end of the contract period there would be a three-year Rate Period or a one-year Rate Period. Also,

it is also possible that other events might arise that would alleviate the need to make such a decision, such as having subsequent contracts start a year early. Thus, BPA will determine this Rate Period duration proposal at the end of the contract period.

Second, it is possible that over the next 20 years, the market and the load/resource balance situation may stabilize. BPA and customers may decide that BPA does not need to undergo the effort or the expense of conducting rate cases every two years. In that situation, BPA may propose to revise the TRM to allow other than a two-year Rate Period; such proposal for change of the TRM would be done consistent with the provisions as outlined in TRM sections 12.3 and 13.2.

Q. Do you expect BPA to file this TRM with FERC at the conclusion of this 7(i) process?

A. Yes, that is our current expectation. Filing for approval by the Commission now would bring finality to this process and clarify that future revisions of the TRM would be subject to the terms therein, not in the WP-12 rate case. Seeking approval now would also assure customers that CHWMs and the Transition Period method, actions that occur outside of the WP-12 rate case, would be established as proposed in the TRM. By waiting to file with the Commission, BPA could find itself having completed a WP-12 rate case assuming TRM approval, only to have to repeat the process and re-do the rates if the Commission remanded the TRM. Submitting to the Commission sooner rather than later would ensure that the proposal filed by BPA staff closest to the development of the TRM and reviewed by Commission staff who have demonstrated they are familiar with BPA ratesetting directives. Also, this Commission seems favorably disposed toward pro-market and pro-infrastructure development proposals. We believe the proposed TRM would be favorably viewed by this Commission as furthering its goals, a view that might not be held by future Commissions.

We expect BPA to consider this question and decide on when it would file with the Commission during the course of this proceeding.

Q. What do you expect would be decided in each relevant rate case?

A. Well, for one, the actual rate levels would be set in each rate case. Additionally, TRM section 12.4 specifically calls out actions that would not considered to be changes to the TRM. As appropriate, these would be dealt with in the relevant rate case(s). These include:

- Calculation of actual rate levels.
- Any rate issues not addressed in the TRM.
- Any rate issues specifically identified in the TRM that are specifically reserved for determination in a future 7(i). These include, but are not limited to:
    - Rate treatment for customers that execute Regional Dialogue Contracts without a Contract High Water Mark;
    - Forecast of the firm critical output of Tier 1 System Resources, forecasts of Augmentation of Tier 1 System Resources, forecasts of Balancing Power Purchases;
    - Allocation of costs consistent with the costs allocation principles, method, and table;
    - Risk mitigation;
    - Development of a System-Shaped Load for each customer;
    - Determination of cost adders to Tier 2 Cost Pools;
    - Design, pricing, and application of the Resource Support Services (RSS) rates;
    - Irrigation Rate Mitigation true-up;
    - Application of section 7(c) of the Northwest Power Act;
    - Application of section 7(b)(2) of the Northwest Power Act;
    - Rates for New Publics;
    - Rates for unanticipated above-RHWM load;

- Rates for customers who choose to switch products; and
- Rates for customers who choose to transfer load served at a Tier 2 rate to being served at a Tier 2 Vintage rate.

Section 6: Evolution of Rate Design

Q. There is a very specific Tier 1 rate design in this proposal. How did this come about?

A. In the Fall of 2006, BPA staff began working collaboratively with public power representatives to develop the Tier 1 Rate design. In the process, a number of alternatives were considered, from the status quo rate design to ones with significant modifications. During the ensuing months, what is now the proposed TRM rate design began to take shape, using components of a number of different alternatives. After about one year, the public power representatives coalesced around a general concept that forms the core of the rate design included in the TRM.

Q. Are there parts of the public power rate design concept that BPA did not adopt as part of this TRM proposal?

A. Yes. The demand rates in the public power proposal were constant from month to month, whereas we are proposing that the monthly demand rates will be shaped through the year. *See* Fisher *et al.,* TRM-12-E-BPA-06. The public power proposal developed Contract Demand Quantities (CDQs) based on FY 2008-2010 historical load levels, whereas we are proposing to use FY 2005-2007 historical load factors applied to Eligible Load. *Id.*

Q. Why do you propose a shaped demand rate?

A. We believe there are two primary reasons to shape the demand rates. First, demand charges that more directly pass on to customers the actual cost of capacity provide the correct price signals to customers as they consider developing new resources. We believe these prices signals will encourage customers to undertake this infrastructure

development. Second, we believe it is important to show customers that capacity has different value in some months compared to other months. For example, one megawatt of capacity in January has more value (and hence is more costly to provide) than one megawatt of capacity in June. While we could have proposed to determine the shape of demand rates in each relevant rate case, we propose to define now how the demand rates would be shaped so that customers would have advance knowledge of BPA's practice and can make better-informed long-term resource decisions.

Q. *Why do you propose a set of years to calculate CDQs different from those in the public power proposal?*

A. We are proposing to use FY 2005-2007 historical load factors to calculate CDQs rather than FY 2008-2010 load levels proposed by public power. We prefer to use a historical time period during which peak demands were able to be met from the existing Federal system rather than a future period when BPA's system capability to meet peak demand loads could require additional future resources. Using historical period load factors applied to Eligible Load would also allow more load growth to be reflected in CDQs than the public power proposal. Also, using the earlier period would allow more time to determine the historical loads, any necessary adjustments, and more customer review than waiting until FY 2011 when development of CHWMs would compete for BPA and customer staff time and attention. We believe that our proposal appropriately accounts for customers' load growth between the period used for historical load factors and the year used to determine CHWMs by applying the historical load factors to Eligible Load.

Section 7: Rate Design Principles

Q. During the discussions with customers, did certain rate design principles become evident?

A. Yes. A primary objective of both customers and BPA was that costs be allocated to the customers who caused those costs to be incurred. In developing the proposed TRM, we followed six cost allocation principles. These principles also are proposed to be used to provide guidance for addressing circumstances that may arise during the term of the Regional Dialogue Contracts for any new costs that are not specifically addressed in this TRM.

Q. What is the first principle, and what is its intent?

A. Tiering is a ratemaking construct implemented through an allocation of costs rather than an allocation of power. *See* TRM section 2.1.

This principle is intended to communicate that tiering is limited to ratemaking. It does not convey rights to Federal power for a customer's load in excess of its Net Requirement. Nor does it imply any customer ownership of the output of the Federal generating system in whole or in part. It also means that BPA will sell Federal system power to meet a customer's Net Requirement; BPA is not selling Tier 1 power or Tier 2 power. BPA is also not establishing a separate business to sell Tier 2 power; nor are financial reserves separately established for the tiers.

Q. What is the second principle, and what is its intent?

A. **Tier 1 Costs will be kept separate and distinct from Tier 2 Costs. Tier 1 Costs will be recovered through Tier 1 Rates. Tier 2 Costs are not to be recovered through the Tier 1 Rates except when necessary to ensure BPA's cost recovery during the Rate Period or to conform to court ruling, or as otherwise provided for in sections 12 and 13 of the TRM.** *Id.*

BPA is trying to provide certainty that the costs of BPA's Tier 1 System Resources will be allocated to Tier 1 Rates and the costs of most future resources will be allocated to Tier 2 Rates. However, there are circumstances that might arise during the term of the Regional Dialogue Contracts that require Tier 2 Costs to be shifted to customers that purchase at Tier 1 Rates. We believe the probability of any of these circumstances occurring is very low, but their possibility cannot be ignored. We must allow for their occurrence by recognizing the exception. Should such an exception occur, BPA would identify the proposal to reallocate Tier 2 Costs in the relevant rate case, consistent with the procedures described in section 12 and 13, for changes that can be made only to ensure cost recovery or to comply with a court ruling. Parties to that rate case will be allowed to offer alternative cost recovery mechanisms.

Q. What is the third principle, and what is its intent?

A. **Individual Tier 2 Cost Pools are to be kept separate from one another; customers paying the costs of one Tier 2 Cost Pool will not be responsible for paying the costs of another Tier 2 Cost Pool.** *Id.*

Just as with Tier 1, BPA's intent is to provide certainty that the costs of specific resources would be allocated to specific Tier 2 Rates and would continue to be allocated to the same Tier 2 Rates and to no others.

Q. Why is there no cost shift exception in the third principle as with the second principle?

A. We believe that the exception in the first principle is sufficient to address the rare circumstances that might occur that would give rise to shift costs away from their intended Cost Pool.

Q. What is the fourth principle, and what is its intent?

A. **BPA will achieve the separation of costs between Tier 1 and 2 Cost Pools and among Tier 2 Cost Pools through the ratemaking process, and the separation will not affect the operation or dispatch of the FCRPS. BPA will use available**

resources to serve system load in the most efficient and cost effective manner possible, without considering the ratemaking aspects of tiering. *Id.*

Similar to principle 1, this principle limits tiering to ratemaking. Tiering is not intended to change BPA's operation or dispatch of resources. In operating the Federal system, BPA will not identify or assign resources to Tier 1 or Tier 2 and will not be limited to only using Tier 1 System Resources to serve customers purchasing at Tier 1 Rates. Similarly, resources whose costs are allocated to Tier 2 Cost Pools will not be limited to serving Tier 2 Loads.

Q. What is the fifth principle, and what is its intent?

A. **The ratemaking separation of costs between the tiers and among the Tier 2 Cost Pools will not be necessarily the same as BPA's accounting treatment of the costs because tiering is a ratemaking methodology, not an accounting practice. When differences arise between ratemaking and accounting, the ratemaking allocations determined in accordance with section 2 of the TRM shall govern BPA's ratemaking.** *Id.*

This principle allows the ratemaking principles to take precedence over BPA's accounting conventions as they may change over time. For example, if BPA's accounting system mixes the cost of certain Tier 2 System Resources into the same accounts, BPA will separate those costs in ratemaking to properly allocate the costs to the appropriate Tier 2 Cost Pools. Another example might be that a cost account might include costs that BPA determines that Slice customers are not responsible for paying. In this case, BPA will separate the costs in ratemaking to properly allocate the costs to the Tier 1 Cost Pools.

Q. What is the sixth principle, and what is its intent?

A. **BPA's allocation of costs between the Composite and Non-Slice Cost Pools will recognize the types of costs distinct to the type of service each group receives and**

how they pay for that service. Composite costs will not include the costs of converting resource output into load service, such as Balancing Power Purchases, and the costs of risk mitigation not directly attributable to Slice purchasers. Because Slice customers purchase surplus power directly from BPA through the Slice product, the Composite Cost Pool will not be allocated the revenues and costs of BPA's surplus marketing, such as secondary revenue credits, costs of wheeling secondary power, and any judgments and settlements related to those transactions. The administrative costs of surplus marketing (primarily staffing costs) will be allocated to the Composite Cost Pool. *Id.*

This principle is intended to guide the allocation of costs between Slice and Non-Slice customers. Slice customers should not be responsible for paying the types of costs identified in this principle. To the extent a new cost arises that meets or closely resembles these types of costs, they would be allocated to the Non-Slice Cost Pool. If they do not match this principle, they would be allocated to the Composite Cost Pool and be paid by all Tier 1 purchasers.

Q. Are there other goals BPA is trying to achieve with this rate design?

A. BPA and the customers analyzed how much changing the rate design would shift costs between PF customers. Looking at information used in the WP-07 Final Proposal, BPA and the customers made an assessment that using the proposed new rate design rather than what was actually used in the WP-07 rates would not generally cause rate increases of more than five percent for a particular customer.

Q. What is the importance of the five percent rate impact threshold for future rate cases?

A. It has no bearing on quantifying rate impacts in any other context. The five percent impact threshold was used solely within the development and assessment of alternative rate designs. The threshold was based on one particular data set, including a specific

revenue requirement and load forecast. The threshold was not intended to be used in any other context.

Q. How do tiered rates affect customer rate levels?

A. We expect the impact of tiering to affect individual customers differently. This is an intended result because it would send price signals to the customers about the effects of their load growth on BPA's costs. However, we would expect a customer that grows at the average rate of growth for BPA's entire load would pay about the same amount under tiered rates as under melded rates. Customers that grow greater than average would see its power costs grow faster under tiered rates than under melded rates, while less than average growers would see its power costs grow slower under tiered rates.

Section 8: Other Issues

Section 8.1: Slice Rates

Q. Would the TRM change any aspect of the existing Slice Rate Methodology?

A. The TRM would replace the existing Slice Rate Methodology with the Tier 1 cost treatments and put the Slice rate and pricing on the same basis as other power products sold at Tier 1 Rates. The definition of Tier 1 System Resources in the TRM would replace the "Slice System Resources." The Slice Product Costing and True-Up Table would be replaced by the Cost Allocation Table, TRM Table 2.1. The Cost Allocation Table identifies to which Tier 1 Cost Pool specific costs would be allocated. Another change is that there would be two rate components charged for service to Slice purchasers: the Composite Customer Rate and the Slice Customer Rate. A further change is that the TRM would allow a Slice customer, as well as other customers, to request the Composite Customer Charge to be shaped during a year rather than to be a constant flat charge each month throughout the year (*see* Fisher *et al.*, TRM-12-E-

BPA-06, section 2). We do not believe that these changes materially alter the provisions in the Slice Rate Methodology.

Q. Are there other more material changes to the Slice Rate Methodology proposed in the TRM?

A. Yes. The existing Slice contract provides the Slice customers with a right to audit BPA's annual Slice True-Up Adjustment, and a settlement agreement allows a form of dispute resolution if Slice customers disagree with the assignment of costs to them. The TRM would replace these contract provisions with its own provisions on verification of identified costs for the Tier 1 Rates and procedure for resolving disputes over allocation of costs. The right to audit costs would be replaced with a cost verification process. The right to dispute the allocation of costs to Slice customers would be timed differently, in that the TRM proposes that any adjustment resulting from a dispute would be reserved for the next general section 7(i) rate proceeding and would not occur after the settlement dispute resolution process.

Q. Why do you propose replacing the audit with the verification process?

A. The provisions of the verification process would provide both Slice and non-Slice customers the ability to review and challenge BPA's cost allocation decisions. It would serve all parties best to have a single forum for discussing the proper allocation of costs and credits between Slice and non-Slice Cost Pools, and between Tier 1 and Tier 2 Cost Pools. That forum is more efficiently and logically the relevant rate case. Rate cases have not historically "looked backward" at cost allocations in the prior Rate Period, but we propose that this limited *ex post* review be added to future cases.

Q. Does this mean that rate cases would be the venue for review of cost allocation?

A. Yes. The relevant rate cases would be the venue for addressing issues related to cost allocation, particularly if a new cost or revenue is accrued during a Rate Period that had not been anticipated when the Cost Pools were determined.

Q. Why would the relevant rate case be the venue for addressing issues related to cost allocation?

A. Under the TRM, two fundamental differences in conditions would call for a different approach to addressing these legitimate interests of customers. First, the new rate design and contracts increase the likelihood that all customers, not just Slice customers, would have a keen interest in ensuring that such post-rate case allocations are performed properly. Currently, all customers are interested in the allocation between Slice and non-Slice rates. Under the proposed TRM, all customers would also want to be sure that new costs are correctly allocated between Tier 1 and Tier 2 Cost Pools. Many customers would also have an interest in the proper allocation of costs among different Tier 2 Cost Pools. Second, the days of five-year Rate Periods are very likely gone, and with that change, the frequency of significant new costs appearing in the Slice True-Up will decline because the time between rate cases will be shorter.

Section 8.2: Shared Rate Plan

Q. The TRM proposes a Shared Rate Plan (SRP) (TRM section 7; see also Fisher et al., TRM-12-E-BPA-06, section 4). Why is there a 500 aMW limit on the participation in this rate design?

A. We propose to limit the amount of load covered under the SRP. Without a limit, the SRP could subvert the general concept of tiered rates because the SRP melds the costs of new Federal resources with the costs of the existing Federal system and shares these costs within a customer pool. Without a participation limit, this concept could mask actual incremental costs and thus mask the important price signals that will encourage regional infrastructure, particularly conservation. Therefore, we propose the limit to restrict the SRP to BPA's smallest customers who have committed to purchase their entire load from BPA through the term of the CHWM Contracts. We expect that the price signals from

tiered rates would have a much smaller impact on their purchasing and infrastructure development decisions. Therefore, we believe that it is reasonable to restrict access to the SRP to these customers.

Section 8.3: Direct Service Industry Rates

Q. Do you expect BPA to incur and recover costs through rates that result from providing service benefits to Direct Service Industrial (DSI) customers after the year 2011?

A. Yes, if BPA determines it is appropriate. BPA is still exploring alternative approaches for providing service benefits to the DSIs after their current contracts expire at the end of FY 2011. These alternatives include 1) providing power through power sales contracts with an optional financial valuation mechanism similar to the existing FY 2007-2011 DSI contract; 2) providing some level of actual power sales to the DSIs under a Regional Dialogue Contract; and 3) other approaches as they may arise. If BPA elects to provide actual power sales to the DSIs and it becomes necessary to purchase Augmentation (*see* TRM section 3.2.1.4), these Augmentation costs would be allocated to Tier 1 as FBS costs (*see* TRM section 10.3).

Q. Does BPA intend to establish rates under the TRM that would apply to power sold by BPA to DSIs under future power sales contracts?

A. We are not proposing so, but the TRM would not preclude such rates. TRM section 10.3 proposes that any sale to the DSIs "would be priced at the Industrial Firm Power (IP) rate determined in accordance with section 7(c). BPA does not intend to tier the IP rate, but it is not prohibited by this TRM."

Section 8.4: Section 7(b)(2) Rate Test

Q. Does the TRM propose any changes be to the Northwest Power Act's section 7(b)(2) rate test to accommodate tiered rates?

A. No changes are proposed to the section 7(b)(2) rate test to accommodate tiered rates.

Q. Would the TRM affect the section 7(b)(2) rate test in the future?

A. We do not expect it to. Tiering is primarily a PF rate design matter. Generally, BPA applies rate design to the PF rate after performing the 7(b)(2) rate test. For example, the current PF rate design contains two energy rates, a demand rate, a Slice rate, and a load variance rate. These rate designs are applied after the 7(b)(2) rate test. The rate test is performed on an average annual cost basis, and the TRM does not propose to change how the rate test is conducted. The rate test would continue include all of BPA's costs allocated to the PF rates without respect to tiered cost pools. Additionally, the TRM does not prohibit changes to how the rate test is conducted.

Section 8.5: Capacity Acquisitions

Q. Would BPA capacity acquisitions be limited, like the energy acquisitions (also known as Augmentation) are limited by the Policy?

A. No. The proposal recognizes that the region's capacity situation is changing and that the Federal system is becoming more capacity constrained. Increased uses of the system, such as integrating wind, the possibilities of our customers' loads becoming "peakier" (*i.e.*, decreasing load factors), and losses of flexibility in the Federal system are expected to require BPA and the region to take a look at the available capacity from the system and other sources. To this end, BPA is currently focusing on its capacity needs in several forums: BPA began a resource acquisition planning program this year; BPA committed in the wind integration rate case settlement to study uses of system capacity; and BPA will actively participate in the Northwest Power and Conservation Council's 6th Power Plan. In recognition of the growing capacity constraints, we have designed the TRM proposal so that, to the extent possible, the marginal cost of serving load growth

for both energy and capacity would be allocated to those who are creating the increased needs.

Q. How will capacity costs be allocated under the TRM?

A. As we note above, the TRM would treat all deliveries to serve customer above-RHWM loads as a flat annual block of power (*see* section 3 above) within Rate Periods. Consequently, any loads that are greater than the forecast purchase of power at Tier 1 and Tier 2 Rates would be recovered through the Load Shaping and Demand Charges under the Tier 1 Rate. Therefore, any capacity cost incurred by BPA to meet the variance in a customer's load would allocated to the Non-Slice Cost Pool to be consistent with the rate design principles and would be recovered in the rates to non-Slice customers.

Furthermore, any capacity cost incurred by BPA to meet the obligations placed on the Federal system by, for example, transmission services or resource integration, would be allocated to the Composite Cost Pool because it would be a general obligation of the Federal system. However, we also propose that BPA would price the service to these obligations at the marginal cost of the service and credit the revenues recovered from the sale of the services to the Composite Cost Pool.

Section 9: TRM Sections 12 and 13: Criteria, Conditions, and Processes for Changing or Re-Opening the TRM

Q. What is proposed in TRM sections 12 and 13?

A. Sections 12 and 13 of the TRM would set forth the procedural protections for customers covering changes to the TRM. TRM section 12 proposes the criteria and conditions for a TRM change or re-opening. TRM section 13 proposes the specific processes for changing or re-opening the TRM.

Q. What, generally speaking, is the purpose for proposing sections 12 and 13 in the TRM?

A. As indicated earlier in this testimony, the tiered rates proposal seeks to afford both customers and BPA long-term certainty and predictability in terms of the rate design that will govern establishment of BPA's rates for customers with CHWM Contracts for the next 20 years. If adopted, it will be BPA's policy to revise the TRM as little as possible. TRM sections 12 and 13 are key components of providing that long-term certainty and predictability. Section 12 proposes what in the TRM could subsequently be changed, the categories of types of change by purpose, and the predicates for various categories of change. Section 13 proposes the procedures that would apply to ensure that the TRM is changed only as provided in Section 12.

Q If BPA intends to provide long-term certainty and predictability with the TRM, why would section 12 provide for changing the TRM?

A. BPA has the responsibility under section 7(a)(1) of the Northwest Power Act to establish, and periodically review and revise if necessary, BPA's power rates to recover its costs. Other substantive subsections of section 7 concern rates for various customer classes, cost allocation, and rate design. Section 9(b) of the Northwest Power Act provides that the Administrator shall timely implement the Act in a sound and businesslike manner. In order to satisfy these directives, we propose that BPA must provide for the TRM to be able to be changed in the limited manner provided in TRM section 12.

Q. Under what conditions could the TRM be changed or re-opened?

A. The conditions would generally fall into four categories. First, the proposed TRM clarifies that any aspect of the TRM may be changed if necessary to ensure cost recovery or to comply with a court ruling. Second, certain specific provisions may be changed *only* to ensure cost recovery or to comply with a court ruling. For purposes of the TRM, the term "court ruling" includes a ruling of the Federal Energy Regulatory Commission that disapproves or remands a BPA rate based on the TRM. The third general area is

comprised of changes that would be considered unintended consequences of the TRM. The fourth area encompasses changes that are considered improvements or enhancements. Each of these is further described below in this section of the testimony. In addition, TRM section 12 specifies that certain actions to implement the TRM are not considered changes to the TRM. These are described and listed above in section 5 of this testimony. In any event, because the TRM is a rate construct, any changes must be made pursuant to the procedural requirements of section 7(i) of the Northwest Power Act or its successor.

Q. *Please relate the categories of change in TRM section 12.1 to the statutory sections you referred to above.*

A. The proposed TRM provides in section 12.1 that anything in the TRM may be changed if necessary to assure cost recovery or respond to court ruling. This assures, first, that BPA could satisfy its statutory responsibility under section 7(a)(1) to, if necessary, revise rates to recover BPA's costs. If BPA were to determine that something in the TRM stood in the way of BPA's cost recovery, the TRM could be changed to cure the problem. Section 12 provides that even in that instance, BPA must consult with customers and explain what steps it has taken to avoid having to make the change. We believe this is consistent with, and reflective of, sound business principles. It assures customers that BPA is continuing to honor the customers' need for certainty and predictability, while assuring cost recovery. This section would also ensure that in the event a future court ruling necessitates BPA changing the TRM, BPA will have retained the ability to do so. We think that it is prudent to retain to BPA the ability to respond, and that this ensures BPA's ability to timely implement the Northwest Power Act in a sound and businesslike manner, consistent with section 9(b).

Q. *Please relate the categories of change in TRM section 12.2 to the statutory sections you referred to above.*

A. Section 12.2 of the proposed TRM provides that certain sections of the TRM may be changed only if necessary to ensure cost recovery or respond to court ruling. The identified sections reflect the core or fundamental building blocks of tiered rates. Because these sections are fundamental, it is consistent with sound business principles to have these sections be immune from change except in the narrowest of circumstances. Therefore, these areas would not be subject to change due to unintended consequences or for enhancements or improvements.

Q. Please relate the categories of change in TRM section 12.3 to the statutory sections you referred to above.

A. Section 12.3 of the proposed TRM provides that certain sections of the TRM, other than those identified in Section 12.5, could be changed if necessary to avoid unintended consequences that would put at risk the policy goals underlying the TRM. Since the TRM deals with cost recovery and court ruling elsewhere, section 12.3 covers an unanticipated and extraordinary type of situation where something in the TRM turns out to be seriously problematic to the point of frustrating the policy goals of the TRM. We recognize that we is proposing to fundamentally change its current rate design, *e.g.*, the development of the Customer Charges to collect the majority of costs allocated to the Tier 1 Cost Pools rather than primarily through charges for heavy load hour and light load hour energy. While we have worked with customers to develop rate designs that should work over time, it is possible that BPA may find results that were unexpected, *i.e.*, unintended consequences that put at risk the policy goals underlying the TRM. In this specific and narrow circumstance, we believe it is prudent and in BPA's and the customers' best interest to preserve BPA's ability to change the TRM if necessary to deal with these unintended consequences.

Q. Please relate the categories of change in TRM section 12.4 to the statutory sections you referred to above.

A. Section 12.4 of the proposed TRM provides that the TRM may be changed to improve or enhance the TRM. Given this purpose, and the protections provided elsewhere in section 12, section 12.4 focuses on refinements that would improve the TRM. We believe allowing for the possibility for this kind of change makes good business sense and will not disturb the certainty and predictability afforded by the TRM.

Q. Are those categories of changes the only kind of change propose by TRM section 12?

A. No. The changes identified above would be changes to the language of the TRM. Customers' representatives raised the concern that the TRM should provide assurance against BPA ignoring the requirements of the TRM and effectively thereby changing the TRM. At the same time, we recognize that there will always be ambiguity in complex undertakings such as the TRM, and we did not want to have interpretative disputes be subject to the same rules as apply to changes. Therefore, at the beginning of section 12, the proposed TRM states that a change would mean a change to the actual language of the TRM or a patent disregard or omission of something that is unambiguously required by the TRM. It would not refer to questions of interpretation or implementation of the TRM. We think this provides ample protection against BPA ignoring the requirements of the TRM and effectively thereby changing the TRM.

Q. What assurance do customers have that BPA would not undercut all of these protections by changing or ignoring them in the future?

A. We believe the assurances are very strong. Concurrent with establishment of the TRM, BPA staff is developing CHWM Contracts. We expect those contracts to contractually commit that BPA would change the TRM only in accordance with the procedures of TRM sections 12 and 13. In other words, the Administrator is ceding his discretion to change the TRM except to the extent provided in the TRM. So, in order to change any of the protections in section 12, BPA would have to first satisfy the procedural requirements

of section 13 as they would pertain to change for purposes of cost recovery, court ruling, unintended consequences, or improvements or enhancements.

Q. Would TRM section 13 serve any other purpose?

A. Yes. Section 13 would provide the dispute resolution procedures that BPA must follow in order to make a change to the TRM and spells out the different processes that would apply to different changes. Section 13 also would contains sections about the process for disputes about whether BPA had proposed a change to the TRM when BPA is implementing the TRM, and disputes over how BPA is interpreting the TRM outside a rate case.

Q. How, if at all, would section 13 reflect the policies you identified as informing the various categories of change identified in TRM section 12?

A. We think very well. When it comes to the changes for cost recovery or court ruling, the procedures would reflect the policy of the law that it is the Administrator's responsibility, his or her statutory charge, to establish rates to ensure cost recovery, and do so in a lawful fashion. In recognizing the historical importance of the TRM and its goal of certainty and predictability, we have proposed for the rate case Hearing Officer to make non-binding determinations of whether BPA's proposal to change the TRM is necessary to ensure cost recovery or respond to court ruling pursuant to section 12.1 or 12.2, and/or whether the proposed change was unreasonably disproportionate to what would be needed to comply with the court ruling or to ensure cost recovery, compared to the alternative proposal(s), if any, offered by the rate case parties. This third-party opinion would, as a political matter, expose the Administrator's reasoning and decision to extra scrutiny, making it more likely that the Administrator would only avail himself of the right to change the TRM for cost recovery and to respond to court ruling when absolutely necessary.

This protection would be provided as well when BPA disputes whether it is changing the TRM. The Hearing Officer would be empowered to determine if BPA was changing the TRM. If, notwithstanding BPA's disagreement, the Hearing Officer determined a change was being made, then the change could not be made and the matter would be excluded from the record, unless BPA argued the change is necessary for cost recovery.

When it comes to change for unintended consequences, section 13.2 would provide for the Hearing Officer to determine whether BPA's proposal to change the TRM pursuant to section 12.3 was necessary to avoid significant harm due to consequences not anticipated when the TRM was put place and whether the value of the proposed change would outweigh any harm created by the change. For improvements and enhancements, section 13.3 would provide for the Hearing Officer to determine whether BPA's proposal to change the TRM pursuant to section 12.4 was appropriate because 1) the change would improve or enhance implementation of the TRM in a way that would continue to effectuate its purposes but be more cost-effective and efficient, customer responsive, may be readily implemented, or capable of fulfilling the TRM's purposes; and 2) the value of the proposed change would outweigh any detriment created by the change.

Finally, if there would be a dispute between rate cases whether BPA was changing the TRM, section 13.7 would provide for a binding third-party determination of the matter. This would assure changes would be made only in accordance with the requirements of Northwest Power Act section 7(i) and TRM sections 12 and 13.

Q. *Do you believe that the procedures of TRM section 13 would adequately protect customers from changes by the Administrator to the TRM?*

A. We believe the proposal affords customers as much protection as appropriate when it comes to changes for cost recovery and court ruling. As we indicated earlier, it is the

Administrator's statutory responsibility to establish rates to assure cost recovery, and do so in a lawful fashion.

When it comes to changes for unintended consequences and improvements or enhancements, we sought to strike a balance between customers' need for predictability and certainty with the recognition that there are reasons why a particular kind of change may be required.

Q. Did you consider any alternatives to TRM section 13?

A. Yes. Attachment A to this testimony presents alternative language that we considered.

Q. Why did you not propose this language?

A. We understand the customers' desire for a durable commercial relationship. However, we believe some of the alternatives presented by customers and the alternative presented in Attachment A went too far. BPA must balance many aspects of its business relationship within the legal and policy constraints that exist. Many of the determinations that customers requested, such as arbitration for HWM, Net Requirement, and resource capability determinations are fundamentally decisions that are appropriately made by BPA, not by a third party. These tend to be fairly technical determinations. We believe it would be very difficult to find a third party who was knowledgeable and would be acceptable to all parties. This would add additional expense and time and could be very administratively burdensome. In addition, the Administrator must retain the ability to make decisions about ratesetting and cannot delegate these to a third party.

We recognize the importance of these determinations and that many of these decisions will affect other customers. That is why we have proposed a process that is more transparent than the current processes. It is also why we are willing to propose the Attachment A mini-trial process. A mini-trial would allow the Administrator to hear the concerns of all who present evidence. The requirement that a certain percentage of

customers petition regarding the issue would help limit the number of issues that come to the Administrator through this process and thus limit its administrative burden.

Q. *Why are you unwilling, in this instance, to propose referring the matter to a third-party neutral for a binding decision?*

A. The TRM is a rate construct, and we understand that all rate matters must be determined in a section 7(i) rate proceeding.

Q. *What do you have to say about the TRM and customer contracts based on existing statutory requirements?*

A. TRM section 12 would also contain language that BPA would not warrant or represent that the TRM or contracts are immune from subsequently enacted legislation, or that the TRM or contracts would be immune from costs imposed by court order or agency regulations of a general and public nature. The effect of later-enacted legislation on earlier agency actions would present complex legal questions and is an issue that the courts are ultimately in the best position to resolve. We do not want BPA to be seen as warranting or representing that the TRM has a legal effect that it would not have or that BPA would not have the authority to confer. Similarly, we wish to be clear neither that the TRM nor the CHWM Contracts should be construed as being immutable, particularly if court order or agency regulations of a general and public nature, such as a universal Btu tax or a requirement that all utilities achieve some specified amount of energy efficiency, would require change. We have tried to be clear that BPA must maintain its ability to recover all costs appropriately borne by it.

Q. *Would these provisions run counter to or somehow trump the protection afforded customers by the BPA Refinancing Act of 1996?*

A. No, that specific legislation is secured by BPA's contracts and will, as a consequence, be binding on BPA for the term of the contracts, as Congress intended. The BPA Refinancing Act of 1996 requires BPA to offer contract language that essentially has the

effect of precluding BPA from charging rates for old capital investments that are not cost-based. Any new contract BPA offers as long as that law is in effect will secure the cost-based value of the system for our customers by including the statutory language. The statutory language incorporated in the contract provides in part that "apart from charges necessary to repay the new principal amount of an old capital investment as established under subsection (b) of this section and to pay the interest on the principal amount under subsection (c) of this section, no amount may be charged for return to the United States Treasury as repayment for or return on an old capital investment, whether by way of rate, rent, lease payment, assessment, user charge, or any other fee."

Q. Does this conclude your testimony?

A. Yes.

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Attachment A

Alternative TRM Section 13

13 Processes for TRM change or reopening

13.1 Process Generally Applicable to Any TRM Change or Revision

No change to the TRM may be made without complying with the procedural requirements of section 7(i) of the Northwest Power Act or its successor.

In the event that this TRM provides that an input to establishment, administration, or implementation of the TRM (e.g., CHWM determination process and results, RHWM Process and results) shall be as determined pursuant to contract or process outside a rate case, then any dispute concerning determination of that input shall not be subject to any of the procedures of this section 13, except as specifically provided for. Similarly, no billing disputes shall be subject to any of the procedures of this section 13 except as specifically provided for.

13.2 Process for Section 12.3 Change to TRM ("Unintended Consequences Change")

In the event that BPA, upon its own or a customer's initiative, wishes to propose to make a change as provided for in section 12.3 (unintended consequences that put at risk the policy goals underlying the TRM) that affects only customers with CHWM Contracts (e.g., it does not concern programmatic responsibilities such as fish and wildlife or the Residential Exchange, and does not involve the DSIs, IOUs, or customers taking service under non-CHWM contracts), BPA may propose such change only after complying with the requirements of this section. Other section 12.3 proposed changes (i.e., those that do affect other parties and interests) may only be proposed consistent with the procedural requirements of section 7(i) of the Northwest Power Act or its successor.

Before BPA proposes such a change that affects only customers with CHWM Contracts, BPA will notify all preference customers of the change it would like to propose and why it believes 1) the change will avoid significant harm due to consequences not anticipated when the TRM was put in place; and 2) the value of the proposed change outweighs any harm created by the change. The notice will specify the date by which the customer may object to BPA making the proposal and the means for the customer registering its objection.

BPA may propose the change unless it is objected to by Tier 1 preference purchasers totaling both 1) at least 70 percent of such purchasers (utility count), and 2) Tier 1 preference purchasers representing at least 50 percent of the sum of the CHWMs of all Tier 1 preference purchasers. In determining the total, BPA shall count each abstention and absence of a vote as a vote that the customer does not object to the proposed change. In the event that the requisite number and CHWM percentage object to BPA's proposed change, BPA shall not propose the change. In the event the requisite number and CHWM percentage do not object to BPA's proposed change, BPA may propose the change in accordance with the procedural requirements of section 7(i) of the Northwest Power Act or its successor.

13.3 Process for Section 12.4 Improvements and Enhancements

A section 12.4 change may be proposed only in accordance with the requirements of this section. In the event BPA, or a group comprised of not less than 45 percent of the Tier 1 preference purchasers (utility count), wishes to propose in a section 7(i) hearing that the Administrator make a section 12.4 improvement or enhancement to the TRM, BPA or the group may propose such change only after complying with the requirements of this section.

Before BPA or the group proposes a change under section 12.4, BPA will notify all preference customers of the change it or the group would like to propose and why BPA or the group

believes 1) the change will improve or enhance implementation of the TRM in a way that will continue to effectuate its purposes but be more cost-effective and efficient, customer responsive, readily implementable, or capable of fulfilling the TRM's purposes; and 2) the value of the proposed change outweighs any detriment created by the change. The notice will specify the date by which the customer may express its support for BPA's or the group's proposal, and the means for registering its support.

BPA or the group may propose the change only if it is approved by Tier 1 preference purchasers totaling both 1) at least 70 percent of such purchasers (utility count); and 2) Tier 1 preference purchasers representing at least 50 percent of the sum of the CHWMs of all Tier 1 preference purchasers. In determining the total, BPA shall count each abstention and absence of a vote as a vote that the customer does not approve the proposed change. In the event that the requisite number and CHWM percentage do not express support of BPA's or the group's proposed change, BPA or the group, as the case may be, shall not propose the change. In the event the requisite number and CHWM percentage support BPA's proposed change, BPA shall propose the change in accordance with the procedural requirements of section 7(i) of the Northwest Power Act or its successor. In the event the requisite number and CHWM percentage support the group's proposed change, the group shall raise the proposed change in accordance with the procedural requirements of section 7(i) of the Northwest Power Act or its successor.

13.4 Process for TRM Changes to Assure Cost Recovery or Respond to Court Ruling (pursuant to sections 12.1 and 12.2)

This section applies when BPA proposes to change the TRM to assure cost recovery or respond to court ruling pursuant to section 12.1 or 12.2 and some customers believe that BPA's proposal to change the TRM is not necessary to assure cost recovery or respond to court ruling pursuant to section 12.1, and/or that the proposed change is unreasonably disproportionate to what is needed

to comply with the court ruling or to ensure cost recovery, compared to the alternative proposal(s), if any, offered by the Tier 1 preference purchasers.

a. In this event, upon written petition by Tier 1 preference purchasers totaling both 1) at least 70 percent of such purchasers (utility count), and 2) at least 50 percent of the sum of the CHWMs of all Tier 1 preference purchasers filed within twenty (20) working days after submission of BPA's initial rate proposal, the rate case Hearing Officer is empowered and required to determine, consistent with the rate case schedule, whether BPA's proposal to change the TRM is necessary to assure cost recovery or respond to court ruling pursuant to section 12.1 or 12.2, and/or whether the proposed change is unreasonably disproportionate to what is needed to comply with the court ruling or to ensure cost recovery, compared to the alternative proposal(s), if any, offered by the Tier 1 preference purchasers.

b. If BPA disagrees with the conclusion of the Hearing Officer, BPA may within five (5) working days of the Hearing Officer's decision petition the Hearing Officer for a mini-trial before the Administrator. If such a petition is timely made, the Hearing Officer shall expeditiously schedule, consistent with the rate case schedule, a mini-trial before the Administrator over whether BPA's proposed TRM change is in fact required to assure cost recovery or respond to a court ruling and/or whether the proposed change is unreasonably disproportionate to what is needed to comply with the court order or to ensure cost recovery, compared to the alternative proposal(s), if any, offered by the Tier 1 preference purchasers.

13.5 Process for Disputes Over Whether BPA Has Proposed a TRM Change

This subsection applies when both of the following conditions are met: 1) a party to a BPA rate proceeding alleges that a BPA proposal constitutes or includes a change to the TRM as defined in section 12, and 2) BPA believes that its proposal is not such a change.

If Tier 1 preference purchasers totaling both 1) at least 70 percent of Tier 1 preference purchasers (utility count), and 2) at least 50 percent of the sum of the CHWMs of all such purchasers file a petition with the Hearing Officer within 10 working days after submission of BPA's initial case alleging that a BPA proposal constitutes or includes a change to the TRM that has not been acknowledged and proposed by BPA as a change pursuant to section 12 and that the customers oppose the change, the rate case Hearing Officer is empowered and required to determine whether the matter proposed by BPA is a change in the TRM as defined in TRM section 12. If the Hearing Officer concludes that the matter proposed by BPA is not a change in the TRM as defined in section 12, that conclusion is binding on all parties.

If the Hearing Officer concludes that the matter proposed by BPA is not a change in the TRM as defined in section 12 or that the matter has been proposed by BPA as a change pursuant to section 12, that conclusion is binding on all parties for purposes of this section 13.5, and the Hearing Officer shall take no further action pursuant to this section.

If the Hearing Officer concludes that the matter proposed by BPA is a change to the TRM that has not been proposed by BPA as a change pursuant to section 12, but BPA subsequently alleges, no later than 5 working days after the Hearing Officer announces his or her conclusion, that the proposed change is necessary to assure cost recovery or respond to a court ruling pursuant to section 12.1 or 12.2, then the Hearing Officer shall make the determinations called for in paragraph a and otherwise proceed as provided pursuant to paragraph b and section 13.6.

If the Hearing Officer concludes that the matter proposed by BPA is a TRM change that has not been proposed by BPA as a change pursuant to section 12, and BPA does not timely allege that the proposed change is necessary to assure cost recovery or respond to a court ruling, then the

Hearing Officer shall strike all matter concerning the proposed change from the record, and that shall be conclusive on BPA and the parties for purposes of that case.

13.6 Mini-Trial Regarding Proposed TRM Change

If the Hearing Officer schedules a mini-trial before the Administrator, as described in sections 13.2, 13.3, 13.4, and 13.5, the following procedures will apply. A mini-trial to the Administrator shall be a part of the rate case, shall be presided over by the Hearing Officer, and shall consist of the following:

1) Parties shall file statements of position that summarize their arguments as to why the Hearing Officer's decision should be upheld or reversed, whether in whole or in part. The Hearing Officer shall encourage parties with like positions to consolidate their submissions.
2) Oral presentations, not to exceed two days in total, shall be scheduled before the Administrator. The order of presentation shall be the Hearing Officer, parties in opposition to the Hearing Officer's decision, and parties in support of the Hearing Officer's decision. Parties' presentations may consist of testimony, oral argument, or a combination of both. The Administrator may ask any questions, or engage in any discussion, with any of the presenters that he or she deems appropriate.
3) Within five (5) working days of the oral presentations, the Administrator shall provide the Hearing Officer a written statement that the Administrator either adopts or does not adopt the Hearing Officer's decision. If the Administrator adopts the Hearing Officer's decision, that shall be conclusive on BPA for remaining purposes of the rate case hearing. If the Administrator does not adopt the Hearing Officer's decision, the Administrator shall summarize the basis for the decision, but may elect to change the decision at the conclusion of the rate case hearing in the Administrator's Record of Decision.

The Hearing Officer is further empowered to establish and employ such procedures as deemed necessary or appropriate, consistent with the rate case schedule, to efficiently, fairly, and impartially make the determinations under this section and under section 13.2, 13.3. 13.4, or 13.5. The decision of the Hearing Officer shall be based upon a consideration of the record on the issues, and it shall include findings of fact and conclusions of law, with reasons and bases therefore, upon each material issue of fact, law, or discretion presented on the record. The Hearing Officer may at any time render an accelerated decision in favor of a party as to any or all parts of the issues, without further hearing or upon such limited additional evidence, such as affidavits, or briefing as he or she may require, if no genuine issue of material fact exists and a party is entitled to judgment as a matter of law.

13.7 Process Applicable to Alleged BPA TRM Change Outside a Rate Case

In the event a preference customer believes that a BPA action changes or constitutes an attempt to change the TRM outside a rate case held pursuant to section 7(i) of the Northwest Power Act or its successor, it shall promptly, but no later than five (5) working days after it learns of BPA's action, notify BPA in writing of its belief and the general basis for its belief. If BPA agrees with the customer, it shall not make the change except pursuant to section 13.1. If BPA disagrees with the customer, BPA will notify customers and interested parties of the notice within five (5) working days of its receipt, and shall, if possible, provide a summary of its position why the action is not a change or attempted change, and shall promptly convene a public meeting with customers and interested third parties to discuss the notice and BPA's action.

If, within five (5) working days after the conclusion of the public meeting held pursuant to the previous paragraph, 1) at least 70 percent of Tier 1 preference purchasers (utility count), and 2) Tier 1 preference purchasers representing at least 50 percent of the sum of the CHWMs of all

such purchasers do not indicate that BPA's action changes or constitutes an attempt to change the TRM, then BPA shall proceed in the ordinary course. In determining the total, BPA shall count each abstention and absence of a vote as a vote that the customer does not object to the proposed change.

If, within five (5) working days after the conclusion of the public meeting held as described above in this section, 1) at least 70 percent of Tier 1 preference purchasers (utility count), and 2) Tier 1 preference purchasers representing at least 50 percent of the sum of the CHWMs of all such purchasers indicate that BPA's action changes or constitutes an attempt to change the TRM, then BPA shall refer the matter to a third-party neutral for a binding decision on the matter.

The third-party neutral shall be selected at random from a roster of neutrals maintained by BPA, and selected by BPA in consultation with Public Power Council representatives, for the purpose of settling disputes regarding whether a BPA action is a change or attempted change in the TRM.

Within five (5) working days of announcement of the neutral's appointment, any customer may submit a written submission to the neutral, BPA, and other customers in support of its position that BPA's action constitutes a change or attempted change in the TRM. BPA, and any customer that so elects, shall within ten (10) working days thereafter submit a written submission to the neutral, BPA, and other customers in support of its position that BPA's action does not constitute a change or attempted change in the TRM. No written submission shall exceed fifty (50) double-spaced pages (12 point font; 26 lines, except for single-spaced quotes), together with exhibits not in excess of one hundred (100) pages.

Within five (5) working days of receipt of the last of the written submissions made pursuant to the paragraph immediately above, the neutral shall notify the parties whether the neutral wishes

to hear argument or otherwise discuss the parties' submissions and, if so, the date for the hearing, provided it shall occur within ten (10) working days.

In the event the neutral has not set a hearing pursuant to the paragraph immediately above, the neutral shall, within ten (10) working days of the last of the written submissions, issue a written determination as to whether BPA's action constitutes a change or attempted change in the TRM. In so doing, the neutral shall accord substantial deference to the Administrator's determination that the action does not constitute a change or attempted change in the TRM.

In the event the neutral has set a hearing, the neutral shall, within ten (10) working days after the hearing, issue a written determination as to whether BPA's action constitutes a change or attempted change in the TRM. In so doing, the neutral shall accord substantial deference to the Administrator's determination that the action does not constitute a change or attempted change in the TRM.

The decision of the neutral shall be binding on and accepted by the Administrator. If the neutral determines that BPA's action constitutes a change or attempted change in the TRM, the change may not be made by BPA without complying with the procedural requirements of section 7(i) of the Northwest Power Act or its successor, and the procedural requirements of section 13.

If prior to or during the process set forth in this section BPA has taken the action that the neutral subsequently determined constitutes a change or attempted change in the TRM, BPA shall take all actions necessary to revoke the action. In no event shall this be construed to provide for damages or liability for loss of profits, or special, incidental, or consequential damages.

13.8 Dispute Resolution Process for Certain Contract High Water Mark, Forecasted Net Requirement, and Tier 1 Federal Resource Capability Determinations

One or more third-party neutrals shall be retained by BPA, acting in consultation with major preference customer group representatives, for the purpose of monitoring and, if requested pursuant to this section, providing advisory decisions concerning disputes over factual matters determined in connection with BPA CHWM, Forecast Net Requirement, and Tier 1 System Resources capability determinations. The third-party neutral shall have a strong engineering or other technical background and experience sufficient to make an independent assessment of facts in dispute in connection with BPA CHWM, Forecast Net Requirement, and Tier 1 System Resources capability determinations.

In the case of CHWM, factual matters could involve utility Non-Federal Resource capability, actual FY 2010 load, and any adjustments to those values such as Weather Normalization, Conservation Adjustment, load and data anomalies, and bad behavior. In the case of Forecast Net Requirement, factual matters could involve load forecasts, Non-Federal Resource capability, and other factual matters. In the case of Tier 1 System Resources capability determinations, factual matters could and would concern only whether the determinations generally comport with BPA's historical approach to making such determinations.

The third-party neutral will have access to, and be able to generally monitor, the pre-decisional internal and external processes BPA employs to make its CHWM, Forecast Net Requirement, and Tier 1 System Resources capability determinations. The neutral will be free to seek and have access to relevant information from both BPA and the customer, subject to appropriate confidentiality arrangements. Since the neutral cannot be expected to be conversant with every matter, BPA and the customers shall alert the neutral to matters that they anticipate may result in disputes.

BPA shall not make final decisions on customer CHWM, Forecast Net Requirement, and Tier 1 System Resources capability until after it has 1) posted its determinations on its website, 2) provided information concerning these matters in response to reasonable information requests, 3) held a public meeting where BPA would explain its determinations and customers and BPA would discuss and seek to resolve issues, and 4) concluded the dispute resolution process provided for below.

Following the public meeting, a customer could seek a decision by the neutral concerning his/her view on 1) a disputed CHWM factual matter if the disputed matter meets the threshold criteria established in section 4.2.1.1, 2) a Forecast Net Requirement factual matter if the disputed matter changes the relevant value or adjustment by a quantity that equals or exceeds the lesser of 5 percent or 10 aMW of the customer's last year's load on BPA; or 3) BPA's initial determination of Tier 1 System Resources capability but only if the customer has the written support for the request by 70 percent of the Tier 1 preference purchasers by utility count. The decision standard on the former for values or adjustments for which the TRM provides standards is whether the BPA proposed value was determined in a manner reasonably consistent with the TRM, and where the TRM provides no standard, whether the BPA proposed value or adjustment is a reasonable one. The decision standard on the latter is whether the BPA proposed Tier 1 System Resources capability determination is a reasonable one.

The dispute process will be a single hearing open to all Tier 1 preference purchasers and shall last no longer than BPA indicates, allowing BPA to render a timely final decision. The dispute process shall be appellate in nature, with the result that the neutral's findings and conclusions shall be based upon materials that BPA has made publicly available, materials the parties have previously provided to BPA, new or additional materials only upon request by the neutral, and arguments on the materials submitted to the neutral by BPA and the customer. Testimony or

cross examination will occur only upon request of the neutral. The neutral shall transmit his or her decision in writing to the Administrator, who shall make a final decision on the disputed issue after consideration of the neutral's report.

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BYRNE E. LOVELL

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Witnesses for Bonneville Power Administration

SUBJECT: COST ALLOCATION and COST RECOVERY

Section 1: Introduction and Purpose of Testimony

Q. Please state your names and qualifications.

A. My name is Raymond D. Bliven, and my qualifications are contained in TRM-12-Q-BPA-01.

A. My name is Ronald J. Homenick, and my qualifications are contained in TRM-12-Q-BPA-09.

A. My name is Carie E. Lee, and my qualifications are contained in TRM-12-Q-BPA-11.

A. My name is Byrne E. Lovell, and my qualifications are contained in TRM-12-Q-BPA-12.

Q. What is the purpose of your testimony?

A. Our testimony discusses allocation of costs under BPA's proposed Tiered Rate Methodology (TRM), TRM-12-E-BPA-01. We discuss how costs would be allocated to Cost Pools in Tier 1 and Tier 2 and the use in ratemaking of the proposed Cost Allocation Table, TRM Table 2.1. We also discuss recovery of BPA's costs under tiered rates, and the proposed treatment of interest earned on the Bonneville Fund. This testimony makes use of defined terms in the TRM; *see* TRM pages v-xvii.

Q. How is your testimony organized?

A. Section 1 is this introduction. Section 2 discusses cost allocation and the Cost Allocation Table. Section 3 discusses recovery of BPA's costs. Section 4 discusses the interest earned on the Bonneville Fund.

Section 2: Cost Allocations and the Cost Allocation Table

Q. Generally, how would costs be allocated under the TRM?

A. Under the TRM, BPA would allocate the total Power function revenue requirement for the Rate Period into a number of Cost Pools. The TRM proposes three Cost Pools for costs that would be recovered through Tier 1 Rates and two or more Cost Pools for costs that would be recovered through Tier 2 Rates. *See* TRM section 2.2.

Q. What distinguishes the Tier 1 Cost Pools from the Tier 2 Cost Pools?

A. Almost all of BPA's current costs would be allocated to the Tier 1 Cost Pools. We propose two exceptions for costs that BPA currently incurs that would be recovered through Tier 2 Rates in the future. The first exception is a provision that would allow BPA to recover a portion of its general and administrative costs through Tier 2 Rates. This would be accomplished with the Overhead Cost Adder, as explained in TRM section 6.3.3. The second exception is for costs associated with providing Resource Support Services (RSS), which are explained in TRM section 8. BPA would use the Federal system to provide RSS, and costs would not be allocated to RSS. Rather, RSS rates would be based on the marginal costs of providing the services, and the revenues from the sales of RSS would be credited to the same Tier 1 Cost Pools to which the costs of the Federal system are allocated.

Q. What costs would be allocated to Tier 2 Cost Pools?

A. The TRM proposes that the costs of acquiring new energy resources or additional energy power purchases needed to serve BPA's customer loads (new resources) would be allocated to the Tier 2 Cost Pools. (The term "new resources" used in this testimony is distinct from the defined TRM term "New Resources," which refers to a certain class of non-Federal resources.) As mentioned above, an Overhead Cost Adder and RSS charges would also be included in Tier 2 Cost Pools. If there are risks associated with the costs

of acquisition of new resources or power purchases, the cost of the risk mitigation would be included in the associated Tier 2 Cost Pool.

Q. Would the costs of all new resources be allocated to Tier 2 Cost Pools?

A. No, there are some exceptions. BPA could acquire a new resource and allocate its costs as Tier 1 Augmentation, if the output of the new resource does not cause the limits on Tier 1 Augmentation to be exceeded. BPA also could acquire new capacity resources for certain purposes and allocate the costs of the new capacity resource to Tier 1 Cost Pools.

Q. How do you propose that costs would be allocated to the various Cost Pools under the TRM?

A. The TRM includes a proposed Cost Allocation Table, TRM Table 2.1, that shows how BPA's current Power function costs would be allocated to the Cost Pools. We fashioned this table after the current Slice Costing Table, which defined the costs paid by BPA's Slice customers. We expanded the Cost Allocation Table to accommodate all of BPA's Power function revenue requirement components and revenue credits. We also expanded the table by adding the reallocation of costs resulting from BPA's ratemaking steps. Each cost category on the Power function's pro forma income statement is specified on the Cost Allocation Table. In addition, some revenue requirement items that are not on the pro forma statement are added. These additions allow all costs included in BPA's Power function revenue requirement to be listed on the table.

Q. Why are the ratemaking reallocations included on the Cost Allocation Table?

A. The inclusion of the ratemaking steps would allow the Cost Allocation Table to be used for the determination of BPA's various rates. In BPA's ratemaking procedures, BPA would establish a table for each rate pool. Each of the costs would be allocated among the rate pools by the appropriate allocation factors. The costs then would be totaled by rate pool before BPA performed the rate design steps of BPA's ratemaking process.

With each rate design step, costs are reallocated among rate pools. These lines on the Cost Allocation Table will show how much is reallocated from a rate pool or to a rate pool. Then, when all of the rate design steps are complete, all costs and reallocated costs on the table for each rate pool can be totaled, which would establish the total costs allocated to each rate pool.

Q. What are the rate pools that BPA currently uses?

A. Currently, BPA has five rate pools. They are Priority Firm Power Preference, Priority Firm Power Exchange, Industrial Firm, New Resources Firm, and Surplus Power. The two Priority Firm rate pools are combined until after the section 7(b)(2) rate test is completed.

Q. Please describe the three proposed Tier 1 Cost Pools.

A. There would be three Tier 1 Cost Pools: Slice, Non-Slice, and Composite. *See* TRM section 2.2. The Slice Cost Pool would be allocated very specific costs that BPA incurs for the implementation of the Slice product, as described below. The Non-Slice Cost Pool would be allocated very specific costs that are excluded from being charged to Slice customers. All other Tier 1 costs would be allocated to the Composite Cost Pool.

Q. What distinguishes the costs that are allocated to the Non-Slice Cost Pool, and thus would not be charged to Slice customers?

A. For the most part, they would be costs and revenues from the sale of surplus power sold on behalf of non-Slice customers. This would include the revenues from BPA sales of secondary power and any costs associated with those sales, such as wheeling expense. BPA provides surplus power to Slice customers as part of the Slice product. As a result, BPA does not incur any additional cost or obtain additional revenue from the surplus power provided to the Slice customers. Slice customers receive this surplus power by paying their share of BPA's Composite Cost Pool costs without receiving any credit for the revenue from BPA's surplus sales.

In addition, because the Slice customers pay for their share of Composite Cost Pool costs, and these costs are subject to being trued up to actual costs, the Slice customers are not subject to the same risk mitigation measures applicable to rates for non-Slice products. One such risk mitigation measure is Planned Net Revenues for Risk (PNRR), which would be added to the Non-Slice Cost Pool as needed. Because Slice customers are not subject to paying PNRR, any such PNRR would be allocated only to the Non-Slice Cost Pool. *See* Lovell *et al.,* TRM-12-E-BPA-08.

Q. The proposed Cost Allocation Table, TRM Table 2.1, has a section labeled Allocation Between Composite and Non-Slice Cost Pools (TRM page 109, lines 1-4). What is this?

A. A small number of line items on the Power function's pro forma income statement may contain costs or credits that combine those that Slice customers should pay or receive credit for and those that Slice customers should not pay or receive credit for. The section of TRM Table 2.1 labeled Allocation Between Composite and Non-Slice Cost Pool shows these line items. The portion of the cost or credit amounts in these line items that the Slice customers should pay or receive credit for would be allocated to the Composite Cost Pool, and the costs or credits the Slice customers should not pay or receive credit for would be allocated to the Non-Slice Cost Pool. Once these preliminary allocations are completed, the costs or credits will be transferred to the respective lines of the Cost Allocation Table.

Q. What are the types of costs that would be included in the Allocation Between Composite and Non-Slice Cost Pools?

A. The first, Transmission & Ancillary Services, contains the costs of wheeling and accompanying services for deliveries of certain sales and obligations. Some of these costs are for the deliveries of designated BPA obligations such as the Canadian Entitlement Return. These are designated BPA obligations for which Slice customers are responsible for paying their share. These costs would be allocated to the Composite

Cost Pool. Also included in this line are costs incurred to wheel BPA's surplus sales. Slice customers are not responsible for these costs, so these costs would be allocated to the Non-Slice Cost Pool.

The next line is Bad Debt. Slice customers are responsible for paying a share of certain bad debt, and these costs, if incurred, would be allocated to the Composite Cost Pool. Slice customers are not responsible for certain bad debt. This bad debt, if incurred, would be allocated to the Non-Slice Cost Pool. Generally, the distinction is that any bad debt associated with BPA's surplus marketing will not be the responsibility of the Slice customers. However, this is a general statement; the actual distinction will be established in the relevant rate case.

The next line is Depreciation. This is included because there may be depreciation of specific assets associated with BPA's surplus marketing. In the past, BPA's trade management system was such an item. Should such items occur in the future, the depreciation associated with the specified asset would be allocated to the Non-Slice Cost Pool. The remaining depreciation would be allocated to the Composite Cost Pool.

The last line is Interest Earned on BPA Fund for Power. This line is included to accomplish the proposed division of the interest credit described in section 4 of this testimony and TRM section 2.4.

Q. Are these the only line items that could be included in this section of the Cost Allocation Table?

A. No. Should cost or credit items arise in the future that are not the responsibility of Slice customers, the cost or credit lines that include these costs would be added to this section of the table.

Q. There are some lines blacked out on the Cost Allocation Table, such as lines 23 and 24. Why are they blacked out?

A. Costs on the table are included on BPA's pro forma income statement for the Power function in the order that they appear on the statement. The blacked out lines indicate the items on the pro forma statement that are entirely allocated to either the Slice Cost Pool or the Non-Slice Cost Pool.

Q. Some cells of the Cost Allocation Table are grayed. Why is this?

A. The Cost Allocation Table shown as TRM Table 2.1 is designed to double as the table that would be used in the Slice True-Up. The grayed cells indicate those line items that would not be subject to the Slice True-Up. In each rate case, the table would be prepared for the Slice True-Up by placing the total costs that Slice customers pay into the "forecast" columns, Columns B and D. These same forecast numbers would be placed into the grayed cells of the "actual" columns, Columns C and E. Then, when the True-Up is performed, actual costs would be placed into the appropriate cells in Column C or E.

Q. Where would BPA allocate the costs related to developing and maintaining the necessary systems and processes required to manage, schedule, and deliver power sold under the CHWM Contracts?

A. Except for some specific exceptions, BPA would allocate the staffing and information technology costs necessary to develop and maintain the automated and manual systems required to manage, schedule, and deliver power for the Load Following, Block, and Slice/Block products to the Composite Cost Pool.

Q. There are a number of line items in the Non-Slice Cost Pool on the Cost Allocation Table (TRM page 113, beginning on line 159). Please describe each of these costs.

A. As introduced above, there are two basic categories of costs that are excluded from being charged to Slice customers. The first is associated with BPA's surplus marketing. Therefore, the lines associated with surplus marketing are listed under the Non-Slice Costs. These are Other Power Purchases (Balancing); Hedging/Mitigation;

Transmission & Ancillary Services (non-Slice portion); Third Party Transmission & Ancillary Services; Bad Debt Expense (non-Slice portion); Depreciation (non-Slice portion); Interest Earned on BPA Fund for Power (non-Slice portion); Reserve Services revenue credit; and Secondary Revenue credit.

The second basic category is risk mitigation. The line items in this category are Planned Net Revenues for Risk and Accrual Revenues.

Q. What other line items are there in the Non-Slice Cost Pool on the Cost Allocation Table?

A. Another line is Other Power Purchases (Capacity). This is included to allocate the costs associated with the acquisition of capacity for meeting the loads of Load Following and Block customers.

The final two line items are credits for the forecast revenues from the Demand and Load Shaping Charges. These two charges are limited to non-Slice customers. The costs of meeting these loads would be included in the Non-Slice Cost Pool, primarily through balancing purchases or capacity costs. The credit of the revenues offsets the costs allocated to the Non-Slice Cost Pool.

Q. How might the Cost Allocation Table change in the future?

A. We have described some conditions for change above. If new costs or credits that are not the responsibility of Slice customers are incorporated into an existing line item with costs or credits that are the responsibility of Slice customers, this line would be added to the first section of the Cost Allocation Table to separate the Composite from non-Slice costs. If BPA revises its pro forma income statement for the Power function, the Cost Allocation Table would also be revised to conform to the pro forma income statement, including adding a new line(s), as needed. If an existing cost allocation is challenged in a Slice verification process or in a rate case and it was decided in a rate case that Slice customers were not responsible for that cost, or that they were entirely responsible for

that cost, the Cost Allocation Table would be revised to reflect the decision. Finally, Cost Pools for new Tier 2 Rate Alternatives would be added as the alternatives are developed.

Q. If BPA revises the pro forma income statement for the Power function, would the allocations of the costs change?

A. No. BPA would demonstrate that the cost allocations before the pro forma revision are the same as after the revision. Although the Cost Allocation Table might change, the underlying theory behind cost allocations will not.

Q. What are the two Tier 2 Cost Pools you referred to above?

A. At the outset of implementation of tiered rates, we expect that there would be at least two Tier 2 Cost Pools. For customers electing the proposed Tier 2 Load Growth rate, a Cost Pool would be established that would contain the costs allocated to serve specified amounts of the load of these customers. The other Tier 2 Cost Pool would be the proposed Tier 2 Short-Term Cost Pool. This Cost Pool would contain costs allocated to serve specified amount of loads of customers electing the Tier 2 Short-Term rate.

Q. What distinguishes these Cost Pools?

A. Consistent with the descriptions of the rate schedules and contract provisions, the Tier 2 Load Growth rate would be established for customers electing BPA to serve their above-RHWM load throughout the term of the CHWM Contracts. As BPA acquired resources to serve customer loads, the costs of these resource acquisitions would be allocated to the Cost Pool for the Load Growth rate. To the extent that the total above-RHWM loads of customers electing this Tier 2 Rate Alternative are greater than the output of the resources acquired, we expect that the costs of power purchases to serve the remaining portion of the customers' above-RHWM load would be allocated to this Load Growth Cost Pool. Similarly, the costs of power purchases to serve loads of customers electing the Tier 2 Short-Term rate would be allocated to the Cost Pool for the Short-Term rate.

Q. How would new Tier 2 Cost Pools be determined?

A. As new Tier 2 Rate Alternatives are developed, Cost Pools for those new rate alternatives would also be developed. At this time, we expect that the new Tier 2 Rate Alternatives would be vintaged rates; that is, rate alternatives developed for customers electing to purchase service for a portion of their above-RHWM load based on the costs of a particular new resource acquisition by BPA. In this event, BPA would establish a Cost Pool so that the costs of that new resource acquisition could be allocated to the Cost Pool.

Q. Do you expect the match between resource acquisition costs and Cost Pools to change through time?

A. No, with a limited exception. We propose that once BPA establishes that a particular resource acquisition is allocated to a particular Cost Pool, whether that cost pool is a Tier 2 or a Tier 1 Cost Pool, the costs of that resource would continue to be allocated to that Cost Pool for the duration of the TRM. However, the TRM proposes an exception that would allow temporary cost assignments to other Cost Pools under certain conditions.

Q. Under what conditions would BPA temporarily assign a particular cost to another cost pool?

A. If BPA acquired a resource with the expectation that the resource would be used for future load growth, then its costs could be temporarily allocated to other Cost Pools. For example, if the total above-RHWM loads of those customers electing the Tier 2 Load Growth rate are 20 aMW, and the above-RHWM loads of these customers are expected to grow to 30 aMW over the next few years, BPA might acquire a resource with the expected output of 30 aMW. In this case, when the total above-RHWM load is 20 aMW, two-thirds of the costs of the resource acquisition would be allocated to the Cost Pool for the Load Growth rate, and one-third of the costs would be allocated to

another Cost Pool on a temporary basis. Which Cost Pool that might be would be determined in the relevant rate case.

Continuing the example, the other Cost Pool might be the Cost Pool for the Tier 2 Short-Term rate or the Tier 1 Composite Cost Pool as an Augmentation cost. Then, as the above-RHWM loads of the customers electing the Tier 2 Load Growth rate grow, the costs of that acquired resource would be reallocated to the Cost Pool for the Load Growth rate. Thus, if the above-RHWM loads grow to 25 aMW, then five-sixths of the resource acquisition costs would be allocated to the Cost Pool for the Load Growth rate and one-sixth to the other Cost Pool.

Q. Must the costs of a particular resource acquisition be confined to a single Cost Pool?

A. No. The costs of particular resources could be allocated to multiple Cost Pools. For example, if the total above-RHWM loads of those customers electing the Tier 2 Vintage rate are 20 aMW, and those customers structure their elections such that the 20 aMW commitment is fixed, BPA might acquire a resource with the expected output of 30 aMW. In this case, two-thirds of the costs of the resource acquisition would be allocated to the specific Vintage Cost Pool, and one-third of the costs would be allocated to another Cost Pool on a permanent basis. Whichever Cost Pool that might be would be determined in the relevant rate case.

Q. Will Tier 2 Cost Pools be eliminated?

A. There may be a circumstance when a Tier 2 Cost Pool would be eliminated, but this would occur only if the customer elections to the associated Tier 2 Rate Alternative expire. If there are no above-RHWM loads associated with a particular Tier 2 Rate Alternative, the Cost Pool would be eliminated.

Q. What would happen to the costs that had been allocated to the Cost Pool that was eliminated?

A. There should not be any remaining costs in the Cost Pool. BPA would tie the term of resource acquisitions and associated cost commitments to the commitment term of the customers electing the Tier 2 Rate Alternative. Therefore, the costs of the resource acquisition would go away as the term of the customer election expires.

For example, if BPA acquired a 10-year output contract of a particular resource, and customers elected a Tier 2 Rate Alternative based on the costs of that acquisition, then the customers would be electing to purchase service for a specified portion of their above-RHWM loads at the Tier 2 Rate for 10 years. After 10 years, the elections would expire, as would the resource acquisition and all associated costs of the acquisition. Therefore, there should be no remaining costs in the Cost Pool being eliminated.

Section 3: Cost Recovery Demonstration

Q. Will tiering BPA's Priority Firm Power (PF) rate change the manner in which BPA demonstrates cost recovery in its Power rate filings?

A. No. As specified in Department of Energy Order RA 6120.2, BPA first tests the adequacy of revenues from current rates to recover both the Rate Period revenue requirement and the repayment schedule over the ensuing 50-year repayment period. If current rates are inadequate or other circumstances warrant changing rates, new rates are established. BPA then tests the adequacy of the proposed rates at the end of the ratesetting process. The revised revenue test compares the revenues from proposed rates to the revenue requirement for the Rate Period. The revenues must be equal to or greater than the annual revenue requirements for the Rate Period; otherwise, the revised revenue test fails. Planned amortization may be shifted within the Rate Period to accommodate the cash flows from the expected annual revenues. If that also fails to meet the

repayment requirement in the Rate Period, rates must be adjusted upward. The repayment period demonstration shows that the revenues from proposed rates also are adequate to ensure recovery of the Federal investment within the established 50-year repayment period. If the repayable obligations (Treasury bonds, Congressional appropriations, and irrigation assistance) are not fully repaid within the 50 years, the demonstration fails and adjustments must be made to the rates.

Q. Will tiering BPA's PF rate affect the statement of BPA's total Power function costs?

A. No. Tiering BPA's PF rate would be solely a matter of rate design. Tiering would affect the allocation of costs and the rates to recover all costs allocated to the PF rate pools. It would not change the statement of BPA's total Power function costs. All of BPA's Power function revenue requirement would continue to be included in the ratesetting process and would be allocated among the Cost Pools. There would be no cost without a Cost Pool. In fact, the pro forma income statement upon which the Cost Allocation Table, TRM Table 2.1, is modeled on what is used today to develop the Cost of Service Analysis that forms the basis for today's rates. Rates under the TRM would be designed to recover all costs, just as today. Therefore, although there would be a different set of rates under the TRM than there is today, the revenues resulting from all of the rates would recover the same amount of revenues. Both cost recovery tests—the revised revenue test and the repayment period demonstration—should be unchanged from today.

Section 4: Interest Earned on the Bonneville Fund

Q. What are you proposing for treatment of interest earned on the Bonneville Fund for the Slice product in the TRM period?

A. We propose to limit the amount of interest earned on the Bonneville Fund included in the Composite Cost Pool. The Composite Cost Pool is the basis for the Composite

Customer Rate, which would be applicable to all customers who purchase at Tier 1 Rates, including both Slice and non-Slice products.

Q. *Would all customers be affected by this limit on the amount of interest earned on the Bonneville Fund?*

A. All customers would be initially affected by this limit. The Non-Slice Customer Rate would include an adjustment in the Non-Slice Cost Pool equal to the "total anticipated credit earned on the Bonneville Fund balances attributed to the Power function less the amount of interest credit included in the Composite Cost Pool." *See* TRM section 2.4. This adjustment could be positive or negative.

Q. *How could this adjustment be negative?*

A. This adjustment could be negative if forecasts of the Bonneville Fund levels decline below specified levels. The specified level of the Bonneville Fund is described below.

Q. *How do you propose to limit the amount of interest earned on the Bonneville Fund for inclusion in the Composite Cost Pool?*

A. We propose to start with the level of BPA's financial reserves attributed to the Power function on the first day of the Slice contract, October 1, 2001. This amount was $495.6 million. BPA would forecast interest earned on this amount and include this credit in the Composite Cost Pool.

Q. *Why do you propose to limit the amount of interest earned on the Bonneville Fund for inclusion in the Composite Cost Pool?*

A. The $495.6 million attributable to BPA's Power function on October 1, 2001, represents the reserves BPA accumulated from selling traditional requirements products to its customers prior to the inception of the Slice product.

Q. *Why does the inception of the Slice product matter in this determination?*

A. The inception of the Slice product is a significant milestone in that it marks the time from which Slice customers assumed BPA's financial risks directly, compared to the

manner that the customers of BPA's other Subscription products assumed BPA's financial risk. *See* Mesa *et al.*, WP-02-E-BPA-32, at 16-17. Theoretically, the Slice product sales did not contribute to financial reserves beginning October 1, 2001, and thereafter.

Q. How did Slice customers assume financial risk beginning October 1, 2001, and thereafter, compared to customers of BPA's other Subscription products?

A. The Slice product addressed BPA's financial risks by first shifting the power supply and market price risks directly to the Slice customer and then incorporating an annual true-up adjustment charge for differences between planned and actual costs (and credits) of the Slice Revenue Requirement. *See* Mesa *et al.*, WP-02-E-BPA-32, at 17.

In contrast, BPA's other Subscription products included two general mechanisms for dealing with BPA's risk of not meeting its financial obligations. The first, Planned Net Revenues for Risk, was incorporated into the Power function revenue requirement. The other, the Cost Recovery Adjustment Clause (CRAC), allowed the rates applied to sales of general requirements power to be raised if certain financial targets were not achieved. *Id.* at 16. Essentially, BPA collected money ahead of time from non-Slice customers to build reserves to handle financial volatility.

In addition, BPA earned revenues from its sales of secondary energy and used these revenues to build up its financial reserves. The Slice rate does not include a secondary revenue credit based upon the sale of secondary energy. The Slice customer received its Slice Percentage share of secondary energy directly and had to realize the revenues from the sale of secondary energy on its own. In theory, Slice customers built up their own financial reserves in order to cover their share of BPA's financial risks that they could face in the form of Slice True-Up Adjustment charges.

Q. Would the amount of this interest earned on the Bonneville Fund be subject to the Slice True-Up?

A. Yes. BPA would determine what the appropriate amount of financial reserves would be for the applicable Fiscal Year and then forecast the interest earned on this amount using the weighted-average forecast interest rate for the applicable Fiscal Year. For Slice True-Up purposes, BPA would include this calculation of interest earned for use in the actual Composite Cost Pool costs. The actual interest earned amount could differ from the forecast interest earned amount in the Composite Cost Pool if the actual interest rate differs from the forecast interest rate. The actual interest earned amount also could differ from the forecast interest earned amount in the Composite Cost Pool if the actual Power function financial reserves level (as of October 1, 2001) has been adjusted (for any reason) since the financial reserves level that was initially assumed in the applicable Rate Period. Slice customers would receive their Slice Percentage share of the actual interest earned for the applicable Fiscal Year, reflected in their Slice True-Up Adjustment charge.

Q. How would applicable interest rates differ from what would be initially assumed for the applicable Rate Period?

A. Forecasts of interest earnings typically have used the actual rate in effect at the end of the previous Fiscal Year. Currently, the rate, which is based on the weighted-average interest rate of outstanding Treasury bonds, changes during the year whenever there are new bonds issued or existing bonds are repaid. These interest earnings are known as Interest Offset Credits (IOCs).

BPA recently signed an agreement with the Treasury that will gradually replace the existing IOC interest-earning rate formula with a market-based investing approach. Starting October 1, 2008, $100 million of deposits in the Bonneville Fund will be invested in Treasury investment securities and will no longer earn interest at the weighted-average interest rate of BPA's outstanding Treasury bond debt. In each year thereafter for up to 10 years, an additional $100 million of BPA funds on deposit will be

invested in Treasury investment securities in lieu of earning IOCs. The phase-out will end when the amount in the Bonneville Fund is fully invested in Treasury securities or in 10 years (September 30, 2018), whichever is sooner.

Q. *How would the amount of financial reserves upon which interest is calculated to be credited to all customers change over time?*

A. The amount of financial reserves upon which interest is calculated to be credited to all customers could change over time for reasons related to recovery of outstanding receivables or liabilities incurred for the pre-FY 2002 period. This is described in TRM section 2.4.

Q. *TRM section 2.4 states that "future circumstances will occur that make it reasonable and fair to make additional adjustments to the size of the 'base amount' on which interest credit is calculated for ratemaking purposes for crediting to the Composite Cost Pool." What kinds of circumstances might lead BPA to make such additional adjustments?*

A. An example of such a circumstance would be when BPA's cash requirements (generally, Federal amortization and irrigation assistance payments to the U.S. Treasury) are less than its non-cash expenses (primarily depreciation and amortization). Under those conditions, the Minimum Required Net Revenue (MRNR) component in the Composite Cost Pool is zero, and BPA essentially collects additional cash that would add to reserves through rates for all customers by the amount that the non-cash expenses exceed BPA's cash requirements. BPA is considering various implications of this condition in future Rate Periods in the Cost Recovery Policy component of its update to the Financial Plan. Any implications for MRNR treatment resulting from such Cost Recovery Policy discussions will be identified and proposed by BPA in a Power rate case.

Q. *Does the situation of forecast cash accumulation affect customers purchasing non-Slice products as well as customers purchasing the Slice product?*

A. Yes. This situation is one that affects both customers purchasing the Slice product and customers purchasing non-Slice products, because the Composite Customer Rates for both these types of products would be based on the Composite Cost Pool. The Composite Cost Pool would contain the MRNR component.

Q. *When will BPA decide how to address this issue?*

A. As stated above, BPA is considering various aspects of forecast cash accumulation in the Cost Recovery Policy component of its update to the Financial Plan. BPA intends to work with customers in the future to explore possible outcomes. This issue will not be resolved before the completion of the TRM rate case. Any implications for MRNR treatment resulting from such Cost Recovery Policy discussions will be identified and proposed by BPA in a power rate case. In the absence of any changes to treatment of MRNR, if cash from operations exceeds cash requirements in the MRNR component of the Composite Cost Pool, BPA would assume that MRNR is equal to zero for ratesetting purposes.

Q. *What amount of interest earned on the Bonneville Fund is credited to rates for non-Slice products?*

A. Rates for non-Slice products would benefit from any amount of interest earned on the Bonneville Fund accrued for the applicable Fiscal Year by virtue of financial reserve levels reflecting this amount of interest earned. The Non-Slice Cost Pool would reflect any additions to or subtractions from this amount.

Q. What would happen to the amount of interest earned on the Bonneville Fund for inclusion in the Composite Cost Pool if the actual level of financial reserves is lower than $495.6 million, or whatever the amount is determined to be?

A. In this situation, the actual total amount of interest earned on the Bonneville Fund accrued in the Power function's financial statements could be less than the interest forecast to be earned on the $495.6 million (or whatever the amount is determined to be). If this occurs, the actual Composite Cost Pool costs would not reflect that lower interest amount for Slice True-Up calculation purposes. The actual Composite Cost Pool costs would reflect only the change in the interest earned due to either a change in the applicable interest rate or a change in the $495.6 million base financial reserve amount.

Q. Conversely, what happens to the interest credit if the actual financial reserves amount is higher than $495.6 million, or whatever the actual threshold amount is determined to be?

A. In this situation, the actual total amount of interest earned on the Bonneville Fund accrued in the Power function's financial statements could be greater than the interest forecast to be earned on the $495.6 million (or whatever the amount is determined to be). If this occurs, the actual Composite Cost Pool costs would not reflect that higher interest amount for Slice true-up calculation purposes. The actual Composite Cost Pool costs would reflect only the change in the interest earned due to either a change in the applicable interest rate or a change in the $495.6 million base financial reserve amount.

Q. Does this conclude your testimony?

A. Yes.

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TESTIMONY of

TIMOTHY ROBERTS, RAYMOND D. BLIVEN, CARIE E. LEE,

TIMOTHY C. MISLEY, and ROGER SCHIEWE

Witnesses for Bonneville Power Administration

SUBJECT: FEDERAL SYSTEM RESOURCES

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Witnesses for Bonneville Power Administration

SUBJECT: FEDERAL SYSTEM RESOURCES

Section 1: Introduction and Purpose of Testimony

Q. Please state your names and qualifications.

A. My name is Timothy C. Roberts, and my qualifications are contained in TRM-12-Q-BPA-14.

A. My name is Raymond D. Bliven, and my qualifications are contained in TRM-12-Q-BPA-01.

A. My name is Carie E. Lee, and my qualifications are contained in TRM-12-Q-BPA-11.

A. My name is Timothy C. Misley, and my qualifications are contained in TRM-12-Q-BPA-13.

A. My name is Roger Schiewe, and my qualifications are contained in TRM-12-Q-BPA-15.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to describe the proposed process that will be used to calculate the projected amounts of Federal system resource output, contract purchases, and contract obligations for inclusion in the tiered rates processes necessary for developing tiered rates and billing determinants according to the Tiered Rate Methodology (TRM), TRM-12-E-BPA-01. The projected output of resources will be assigned to the respective rate tiers and will be used to determine each customer's Contract High Water Mark (CHWM) and Rate Period High Water Marks (RHWMs) and incorporated in the ratemaking process. We also address Slice and New Federal

Resources. This testimony makes use of defined terms in the TRM; *see* TRM pages v-xvii.

Q. How is your testimony organized?

A. Our testimony includes four sections. The first is this introduction. Section 2 discusses existing Federal resources. Section 3 addresses Slice. Section 4 discusses new Federal resources.

Q. Do you have any changes or corrections to make to the TRM?

A. Yes. The definition of Augmentation, page v of TRM-12-E-BPA-01, inadvertently omitted the words "firm critical period" in line 3. The definition should read:

> Augmentation. A component of Tier 1 System Resources; BPA power purchases or resource acquisitions necessary to achieve an annual <u>firm critical period</u> energy load-resource balance. The amount of Augmentation included in Tier 1 System Resources is subject to the limits of Augmentation established in this TRM. *See* TRM section 3.2.

The sentence beginning on line 10 of TRM page 13 uses an incorrect date. The sentence should read:

> Resource forecasts revised after <u>September 30</u> will not change the results of the RHWM Process, however.

The same change should be made to the sentence beginning on line 5 of TRM page 18. The sentence should read:

> In the event that there is a loss of a Tier 1 System Resource subsequent to <u>September 30</u> of the Forecast Year (the cutoff date for establishing the Tier 1 System Resources and RHWMs for the following Rate Period), in that Rate Period Tier 1 System Resources will not be augmented for the loss of the resource.

Section 2: Existing Federal Resources

Q. Do you propose to distinguish between existing Federal resources and new Federal resources under the TRM?

A. Yes. Resource forecasts would separately identify the projected output of existing Federal resources and new Federal resources to better support the process of determining cost allocations, developing Billing Determinants, and ratemaking.

Section 2.1: Federal System Resource Process

Q. What resources comprise existing Federal resources?

A. Existing Federal resources are comprised of a specific set of Federal system resources, contract purchases, contract obligations, and system augmentation. In the proposed TRM, this set of resources is called "Tier 1 System Resources." The firm critical output of these resources would be used to establish the quantity of power to be sold at Tier 1 Rates.

Q. What distinguishes this set of resources from all of BPA's resources?

A. The set of resources identified as Tier 1 System Resources would be specific to the ratesetting process and the determination of power available for Slice customers. For operational and planning purposes, there are no distinctions among Federal system resources. Tier 1 System Resources are comprised of the Federal system resources, contract purchases, and contract obligations, and are BPA's existing resources and contracts as of September 30, 2006, that BPA markets or is contracted to market. The specific components of Tier 1 System Resources are listed in TRM Table 3.1. In addition, as BPA augments the Federal system up to the limits proposed in TRM section 3.2, those contract purchases or resource acquisitions attributed to Augmentation would be included as Tier 1 System Resources.

To meet Tier 2 Loads during the Rate Period, BPA may contract for or acquire resources that would not be included in Tier 1 System Resources. Instead, for the Rate Period, Tier 2 Loads would be priced at the cost of purchases or resources acquired by BPA after September 30, 2006.

Q. What is Augmentation?

A. System augmentation (Augmentation) is a component of Tier 1 System Resources. Augmentation represents the amount of energy that BPA would purchase, or resources BPA would acquire, to achieve an annual critical period firm energy amount sufficient to balance loads and resources for each year in the Rate Period. However, the amount of Augmentation included in Tier 1 System Resources is subject to the limits of Augmentation proposed in TRM section 3.2.

Q. How would the amount of Augmentation included in Tier 1 System Resources be calculated?

A. In each RHWM Process, BPA would determine the amount of Augmentation to be included in Tier 1 System Resources. This Augmentation amount would be determined by subtracting the sum of all CHWMs from the forecast firm critical output of Tier 1 System Resources before any Augmentation is included. Amounts of Augmentation then would be added until either the firm critical output of augmented Tier 1 System Resources equals the sum of CHWMs or the Augmentation limits proposed in the TRM are reached. *See* TRM sections 3.2.1.1, 3.2.1.2, 3.2.1.3, and 3.2.1.4.

Q. Why is Augmentation of Tier 1 System Resources limited?

A. The proposal to limit Augmentation arises from BPA's February 2005 Policy for Power Supply Role for FY 2007-2011, where BPA decided to limit its sales of firm power at the lowest cost-based rate to public power preference customers to meet their regional firm requirements loads to approximately the firm capability of the existing Federal system. The Regional Dialogue Policy determined that limiting BPA's open-ended obligation

would accomplish shared regional goals, including limiting the dilution of the value of the Federal Base System (FBS) and promoting regional infrastructure development.

Q. How are the Augmentation limits determined?

A. The Regional Dialogue Policy established the proposed limits to Augmentation. The Policy established a general limit on Augmentation and four exceptions. The general limit is that Augmentation of Tier 1 System Resources would not exceed 300 aMW per year. However, the Policy also placed another limit on general Augmentation. The 300 aMW would be reduced to the amount of Augmentation needed to balance the firm critical output of Tier 1 System Resources with total Eligible Load in the development of CHWMs, as long as this balancing amount did not exceed the 300 aMW and did not cause the total firm critical output of Tier 1 System Resources to exceed 7,400 aMW.

The Policy established exceptions to the general Augmentation limit. These exceptions allow Augmentation for specific new loads (New Publics, specific tribal utility load growth, a specific new load of DOE-Richland, and potential load service for BPA's Direct Service Industrial Customers. The incorporation of the Augmentation for these exceptions has been structured so that the CHWMs and RHWMs of PF purchasers will not be affected.

Q. How would existing Federal resources be forecast to establish the quantity of power to be sold at Tier 1 Rates?

A. BPA would base the quantity of power to be sold at Tier 1 Rates on the firm critical output of Tier 1 System Resources. Prior to each rate proceeding under the TRM, BPA would forecast the firm critical output of Tier 1 System Resources in the RHWM Process, as described in TRM section 3.1.

In the RHWM Process, BPA would release a forecast of the firm critical output of Tier 1 System Resources for stakeholder review by August 15 of the Forecast Year. BPA would explain its forecast, answer inquiries, and take comments. BPA would review the

comments and make adjustments to the forecast as necessary. Then, by September 30 of the Forecast Year, BPA would publish its final forecast of the firm critical output of Tier 1 System Resources.

Q. *What is the source of the data to be used for these forecasts?*

A. The source of the resource and contract data used in the calculation of the firm critical output of Tier 1 System Resources will be BPA's latest published Pacific Northwest Loads and Resources Study (the White Book), or its successor, updated in the RHWM Process for known changes in river operations, resource availability, contract purchases, and contract obligations.

Q. *Why is the White Book proposed as the data source?*

A. The White Book is published annually by BPA and establishes the planning basis for supplying electricity to BPA customers and other regional entities. To assure accurate information, the White Book contains information obtained from formalized resource planning reports and data submittals from the Northwest Power and Conservation Council (Council), the Pacific Northwest Utilities Conference Committee (PNUCC), and other Federally mandated reporting processes. The White Book is not an operational planning guide; nor is it used for determining BPA revenues; however, the database that generates the load obligations, contracts, and resource data for the White Book analysis contributes to the development of BPA's ratemaking process.

Q. *How do the White Book forecasts compare with the resource forecasts that have been used in BPA rate cases?*

A. The latest published White Book is generally the basis for use in BPA's rate cases. However, hydroregulation studies are normally updated for rate cases. Also, the rate case forecast excludes power that BPA can call upon from the WP3 Settlement contracts (85BP-92185 and 85BP-92186), typically shown as firm resources in a White Book study. These two contracts would also be excluded from the forecast of the firm critical

output of Tier 1 System Resources because it is unlikely that BPA could reliably purchase this power on an annual basis.

Q. What would happen if the resource forecast changed after September 30 of the Forecast Year?

A. Once the firm critical output of Tier 1 System Resources is used to establish RHWMs, any subsequent changes to the forecast of resource output would not change RHWMs. If conditions that lead to a change in the forecast of resource output are known before a rate case is concluded, the forecast may be changed, but RHWMs would not change for that Rate Period. The cost or value of the change in forecast resource output could be included in the determination of rate levels. If there is a decrease in resource output, the costs of replacement resources would be included as Balancing Power Purchases and allocated to the Non-Slice Cost Pool. This allocation is appropriate because Slice customers would receive a lower amount of power due to the decrease in resource output.

If conditions that lead to a change in the forecast of resource output are known after a rate case has concluded, BPA would incorporate the changes into its actual operations. The costs or value of the change in resource output would be reflected in BPA's net revenues and affect BPA's financial reserves.

Section 2.2: Federal System Hydro Generation Forecast

Q. What Federal hydro resource generating projects would be included in the calculation of the Tier 1 System Resources in the forecast?

A. BPA markets the generation produced by a number of hydro resources. These resources are owned by the Bureau of Reclamation (Reclamation), the US Army Corps of Engineers (COE), and other hydro project owners. The hydro resources that will be used in determining Tier 1 System Resources are listed in TRM Table 3.1. The estimated hydro generation for these resources would be used in the calculation of the Rate Period

forecast of Tier 1 System Resources. These generation estimates will most likely differ from actual output produced by these hydro resources due to the variability of water conditions in the Columbia River basin.

Q. How would the Federal hydro resource generation be estimated in the forecast?

A. BPA would use the HydroSim hydroregulation simulation model (or its successor model) and project owner generation estimates to forecast the Federal system hydro resource generation. There are two types of hydro generation modeled in the forecast: 1) regulated hydro projects, forecast using the hydroregulation simulation model; and 2) independent hydro projects, forecast using data provided by Reclamation, COE, and other hydro project owners.

Estimates for the generation from regulated hydro projects would incorporate known reservoir operating assumptions and information from any agreed-upon operations concerning a Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) or such replacement operating regime established in the future.

Q. Please describe the primary inputs of expected reservoir operations in the hydro regulation studies.

A. Besides incorporating known reservoir operating assumptions and BiOp operations, the forecast would incorporate PNCA planning in BPA's estimated hydro generation. Operating requirements and project operating characteristics used in the forecast would be based on data submittals taken from the Pacific Northwest Coordination Agreement (PNCA) (or successor agreement(s)). Operating requirements would include, but would not be limited to, storage content limits determined by rule curves, maximum project draft rates determined by each project, and flow and spill objectives. The Federal system regulated and independent hydro generation forecast would include estimated generation increases due to capital improvements at specific Federal system projects. The Federal system regulated and independent hydro generation forecast also would reflect any

sustained peaking reductions based on the availability of water in the Columbia River basin and generation losses due to maintenance outages and operational reserves.

Q. What time period would be used to simulate hydro system operations?

A. The firm critical output of the Tier 1 System Resources would be forecast for each Rate Period during the duration of the TRM. For other ratemaking purposes, generation estimates for the Federal hydro system under current operating requirements would be simulated over a number of historical water conditions using the hydroregulation simulation model. In the event that a final BiOp for any future year is not available, BPA would forecast BiOp operations during the Rate Period.

Section 2.3: Designated Non-Federally Owned Resources Forecast

Q. What is the difference between the TRM's defined Non-Federal Resources and the Designated Non-Federally Owned Resources described in the TRM?

A. The TRM's defined Non-Federal Resources include resources not owned, operated, or contracted by BPA. *Designated Non-Federally Owned Resources* are specific non-hydro resources that have been contracted for or assigned to BPA during the Rate Period. These resources include Columbia Generating Station (CGS), small thermal, and renewable resources. *See* TRM Table 3.1, beginning at line 36.

Q. What Designated Non-Federally Owned Resources would be included in the Tier 1 System Resources for the forecast?

A. The forecast of Tier 1 System Resources would include the forecast firm output of non-Federally owned generating projects that are contracted for or assigned to BPA as of September 30, 2006. The firm output of these *Designated Non-Federally Owned Resources* would be included in the forecast of the firm critical output of Tier 1 System Resources. *See* TRM Table 3.1, beginning at line 36.

Section 2.4: Designated BPA Contract Purchases

Q. What Designated BPA Contract Purchases would be forecast for the Tier 1 System Resources for the forecast?

A. BPA purchases or receives power under various contractual arrangements to meet firm load obligations. The contracts are categorized as 1) power purchases and resource acquisitions; 2) power or energy exchange contracts; 3) capacity or capacity-for-energy exchange contracts; and 4) power purchased or assigned to BPA under the Columbia River Treaty. These *Designated BPA Contract Purchases* are considered firm resources that are delivered to the Federal system regardless of weather, water, or economic conditions. The *Designated BPA Contract Purchases* included as Tier 1 System Resources would include all existing on September 30, 2006. *See* TRM Table 3.1, beginning at line 50.

Section 2.5: Designated BPA Contract Obligations

Q. What Designated BPA Contract Obligations would be included for the Tier 1 System Resources forecast?

A. BPA has a number of obligations that are imposed on BPA by statutes, treaties, memoranda of agreement, court rulings, and contracts that require the generation or delivery of power, or forbearance from generating power, in order to support the operation of the FCRPS. Like BPA's contract purchases, the designated BPA contract obligations change over time and are assumed to be served by Federal system firm resources regardless of weather, water, or economic conditions. For the purposes of the TRM, these contract obligations would reduce Federal system resources, thus reducing the firm critical output of Tier 1 System Resources.

The *Designated BPA Contract Obligations* will include all existing obligations on September 30, 2006, and additional obligations that include, but are not limited to,

contracts pertaining to BPA transmission and reliability services, Resource Support Services, contract agreements that are load obligations on the Federal system, and other estimated reductions to Federal system resources that may or may not have specific signed contracts. *See* TRM Table 3.1, beginning at line 70.

Section 2.6: Augmentation Resources

Q. What type of resources can be included in Augmentation of Tier 1 System Resources?

A. Any type of resource can be included as an Augmentation resource as long as the acquired resource amount would not cause BPA to exceed the Augmentation limits.

Q. What would happen if BPA acquires physical resources for Augmentation and then subsequently discovers that it does not need that much Augmentation?

A. BPA would determine what the amount of excess Augmentation power is and allocate the power and related costs to another obligation, if possible. For example, BPA could include the resource in the Tier 2 Short-Term Cost Pool. If there is no other BPA obligation that could absorb the use of the excess augmentation power, then this amount would be marketed and sold. If it is known during the rate case that excess Augmentation power exists, and there is no other obligation that could absorb its use, then this amount would be assumed to be marketed, with the associated costs and credits assigned to the Composite Cost Pool as an Augmentation expense.

Q. CHWMs, RHWMs and above-RHWM load are all energy amounts. What if BPA needs to acquire capacity or capacity resources?

A. Through a public process BPA would identify the need for capacity and acquire the capacity or capacity resources necessary to meet the capacity need. The capacity costs related to the acquisition would be assigned to the Cost Pool that is associated with the capacity obligation. *See* section 4 of this testimony.

Section 3: Slice

Section 3.1: Slice Resources

Q. What resources would BPA use to deliver power sold as the Slice product?

A. The resources used to deliver power sold as the Slice product would be the same set of resources, contract purchases, obligations, and Augmentation amounts defined as Tier 1 System Resources.

Section 3.2: Slice Percentage Determination

Q. What is the Slice Percentage?

A. The Slice Percentage would be the percentage share of services from Tier 1 System Resources selected by a Slice customer for its purchase under the Slice portion of the Slice/Block product contract. The accumulated Slice Percentage would be used for operational purposes to deliver a percentage share of the energy production capability of the Tier 1 System Resources, after all system obligations and operating constraints have been met, to Slice customers during each hour of each year. The Slice Percentage would be the Billing Determinant for the Slice Customer Rate for those customers purchasing the Slice product. *See* Fisher *et al.*, TRM-12-E-BPA-06, for a description of Slice Customer Charges. The Slice Percentage would also be a portion of the Billing Determinant for the Composite Customer Rate for those customers purchasing the Slice product.

Q. What amounts of power would Slice customers receive?

A. Slice customers would receive a Slice Percentage share of the as-available power output and peaking capability of Tier 1 System Resources. The Slice product includes a planned amount of power for service to the customer's planned Net Requirement load, as well as an advance sale of as-available surplus power.

Q. How would the Designated BPA Contract Obligations that are included in Tier 1 System Resources be treated with regard to Slice customers?

A. Slice customers would receive a Slice Percentage share of the power associated with such obligations or contribute their Slice Percentage share of the power associated with such obligations. For example, some of the *Designated BPA Contract Obligations* are power purchases. Slice customers would receive their Slice Percentage share of those power purchases. Some of the *Designated BPA Contract Obligations* are power deliveries. Slice customers would contribute their Slice Percentage share of the power and system capability associated with such obligations by virtue of this power being a reduction of the amount of power and system capability available from Tier 1 System Resources. For Slice delivery purposes, the actual contract schedules for power would be added to or subtracted from the hourly output of the remaining Tier 1 System Resources.

Section 3.3: Slice and Augmentation

Q. Would Slice customers receive a share of Augmentation?

A. Yes. Slice customers would receive a Slice Percentage share of the Augmentation amounts determined in the RHWM Process for the relevant Rate Period. *See* TRM section 3.5.

Q. How is Augmentation treated in the existing Slice product?

A. In the existing Slice product, Slice customers do not receive any power associated with Augmentation. *See* Mesa *et al.*, WP-02-E-BPA-32 at 13-14.

Q. How would Augmentation be treated under the TRM?

A. Under the TRM, we are proposing a methodology to determine the amount of power charged at Tier 1 Rates and a PF cost allocation and rate design methodology that treats all customers similarly to the maximum extent possible while recognizing fundamental

product differences. All PF customers purchasing under tiered rates would be served from the same set of Tier 1 System Resources, including Augmentation, and all these customers would be charged for Tier 1 Costs to the extent such cost is associated with the customer's service. *See* TRM section 2.

Q. Would Augmentation power amounts determined in the relevant RHWM Process be subject to the Slice true-up?

A. No. We are proposing that the Augmentation power amounts not be subject to the Slice true-up. Augmentation would be delivered as a firm flat annual amount of power to Slice customers for the Rate Period whether BPA makes actual Augmentation purchases or not. The costs or benefits arising from BPA's operational decisions would flow to BPA's net revenues and financial reserves.

Section 3.4: Reduction in Slice Percentage

Q. Could a customer's Slice Percentage be reduced?

A. Yes. A customer's Slice Percentage could be reduced prior to or during the Rate Period due to load loss if its Net Requirement is less than its RHWM. *See* TRM section 3.5.1. However, the Slice Percentage could be reduced only after the entire Block portion of power deliveries to the customer had been reduced to zero and after the Slice customer had exhausted its ability to remove resource amounts consistent with BPA's 5(b)9(c) Policy. *Id.*

Q. How would the Slice Percentage be adjusted in this situation?

A. The customer's Slice Percentage would be adjusted according to the provisions of the Slice contract. *See* section 3.2 of this testimony.

Q. *What would happen if the Slice Percentage is reduced?*

A. If the Slice Percentage was reduced due to load loss, the Slice Billing Determinant for the Composite Customer Rate and the Slice Customer Rate would be reduced. *See* Fisher *et al*., TRM-12-E-BPA-06.

Q. *Could the customer's Slice Percentage be increased, back to its previous level, if the customer's Net Requirement increased due to partial or full recovery of lost load?*

A. Yes.

Q. *If the customer's Slice Percentage is increased due to partial or full recovery of lost load, would the Billing Determinants for the Composite Customer Rate and the Slice Customer Rate be increased as a result?*

A. Yes.

Q. *What would happen to the unsold firm power from a customer whose Slice Percentage had been reduced due to load loss?*

A. The unused firm power would be considered "unused RHWM amounts" and would be "sold" and the resulting revenues credited back to all customers. *See* TRM section 3.5. If the reduction occurred prior to or within the rate case, then the amounts credited would be forecast and included in rates. If the reduction occurred after rates are determined, or if the reduction amount changed, then the Slice True-Up would be adjusted to account for the value of this unused RHWM amount, and all Slice customers would receive a Slice Percentage share of this credit through the Slice True-Up Adjustment. *Id*. To determine the value of this credit, BPA would multiply the amount of the unused power by the forecast market prices determined in the relevant rate case, whether or not an actual sale of the power occurs. *Id.*

Q. *How else could the customer's Slice Percentage be reduced?*

A. The customer's Slice Percentage could be reduced when Augmentation purchases are made for DOE-Richland, New Publics, and DSI power sales. *See* TRM section 3.5.2.

In this situation, the customer's Slice Percentage would be adjusted according to the provisions of the Slice contract. The adjusted Slice Percentage would maintain the same level of firm power output service from Tier 1 System Resources as before the adjustment.

Q. If these additional Augmentation purchases for DOE-Richland, New Publics, and DSI power sales are decreased in a subsequent Rate Period, would the customer's Slice Percentage increase as a result?

A. Yes. In this situation, the Slice customer's Slice Percentage would be adjusted according to the provisions of the Slice contract.

Section 4: New Federal Resources

Q. What are new Federal resource acquisitions?

A. New Federal resource acquisitions are those market power purchases or resource acquisitions that BPA makes after September 30, 2006. BPA would allocate the costs of such resources to specific Cost Pools for the duration of the purchase or the Regional Dialogue Contract period, whichever ends sooner.

Q. How are new Federal resource acquisition costs allocated in the current Subscription period?

A. In the current Subscription period, BPA allocates the costs of new Federal resource acquisitions into several financial accounts: long-term generating project expenses, renewables expenses, augmentation expenses, and other (balancing) power purchase expenses. These expenses are recovered depending on which resource pool the costs are in. Some of the resources are in the Federal Base System resource pool and some are in the New Resources resource pool. Some costs are not included on the Composite Cost Pool Table.

In addition, in the current Subscription period, BPA does not distinguish between the energy and capacity components of the costs of new Federal resource acquisitions.

Q. *How do you propose to allocate the costs of new Federal resource acquisitions in the post-FY 2011 period?*

A. We propose to allocate costs of new Federal resource acquisitions in the TRM period in a different manner. First, we expect that resources acquired to serve future load growth of consumer-owned utilities would be included in the FBS resource pool as FBS replacements. This would also be the case for resources acquired to replace reductions in FBS capability in the future. We propose that several new Cost Pools be established for the allocation of such costs.

Second, to the extent that it is necessary, BPA would differentiate between new energy and capacity resource acquisitions and allocate those costs accordingly. For example, the capacity costs of meeting specific obligations, such as Load Following for Tier 1 customers, Transmission function capacity obligations, and Resource Support Services (RSS) capacity obligations, would be allocated to those Cost Pools who must share in those costs.

Q. *Why are you proposing to allocate costs of new resource acquisitions in a different manner in the TRM period?*

A. Our proposal would more closely allocate resource acquisition costs to those who are causing the costs to be incurred. This allocation method is critical to meeting the goals of preserving the value of the existing system envisioned by the Regional Dialogue Policy.

Q. *How would BPA allocate the costs of new Federal resource acquisitions to the different Cost Pools under your proposal?*

A. BPA would first determine the amount of the energy or capacity obligations that need to be met by a new Federal resource acquisition. BPA then would acquire the new Federal

resources that have operational attributes that meet the obligations. To the extent that new Federal resources are acquired before the beginning of a Rate Period, BPA would include the costs of the resources in the appropriate Cost Pools for ratemaking purposes.

Q. *What if BPA made new Federal resource acquisitions during the Rate Period?*

A. If BPA acquired a new Federal resource during the Rate Period, BPA would propose the proper Cost Pool and include such costs in the Slice True-Up, as appropriate.

Q. *What new Federal resource acquisition costs would be subject to the Slice True-Up?*

A. For the most part, the costs of capacity purchases made for the purpose of Transmission function obligations and the costs of capacity purchase made for the purpose of RSS obligations would be tracked and included for purposes of the Slice True-Up.

Q. *Would Slice customers share directly in the output of any capacity purchases for the purposes of Transmission function obligations or for RSS obligations?*

A. No, Slice customers would not share in any power or capability from the capacity purchases for the purposes of Transmission function obligations or for RSS obligations. However, the capacity purchase used to meet the obligation would result in a reduction of Tier 1 System Resource obligations, and a corresponding amount of Tier 1 System Resource capability available for Slice would increase, as appropriate. The effect on the Federal system resources for Slice delivery limit purposes will be described in the Slice contract.

Q. *Would Slice customers share in any of the revenues that Power receives from Transmission or for sales of RSS?*

A. Yes, Slice and all other customers would share in the revenues that Power receives from Transmission or for sales of RSS. Such revenues would be subject to the Slice true-up.

Q. *What if the need for the obligation decreases?*

A. In this instance, as described in TRM section 3.4, BPA could allocate the costs of the new Federal resource acquisition to another Cost Pool or multiple other Cost Pools.

Q. Would the costs of new Federal resource acquisitions for the purposes of Augmentation for existing public utilities or for New Publics, DSIs, and DOE-Richland be subject to the Slice true-up?

A. No. Augmentation costs would not be subject to the Slice true-up.

Q. Please explain the statement in the TRM, "to ensure cost recovery, BPA will allocate to the Composite Cost Pool costs for energy and capacity resources not fully recovered through the revenues from the obligation for which the costs were incurred."

A. For non-Slice customers, this means that all actual costs and revenues of such resources would affect the Power function's financial reserves. Financial reserve levels would determine whether any amounts of Planned Net Revenues for Risk are needed to ensure cost recovery in subsequent Rate Periods. For Slice customers, this means that for the most part, such costs and revenues would be subject to the Slice True-Up, and Slice customers would have paid their proportionate share of the net costs of the new Federal resource acquisitions that they should share in.

Q. Does this conclude your testimony?

A. Yes.

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TESTIMONY of

LARRY M. STENE, REED C. DAVIS, JOSHUA P. WARNER, and SCOTT K. WILSON

Witnesses for Bonneville Power Administration

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LARRY M. STENE, REED C. DAVIS, JOSHUA P. WARNER, and SCOTT K. WILSON

Witnesses for Bonneville Power Administration

SUBJECT: ELIGIBILITY TO PURCHASE AT TIER 1 AND TIER 2 RATES

Section 1: Introduction and Purpose of Testimony

Q. Please state your names and qualifications.

A. My name is Larry Stene, and my qualifications are found at TRM-12-Q-BPA-16.

A. My name is Reed Davis, and my qualifications are found at TRM-12-Q-BPA-05.

A. My name is Joshua Warner, and my qualifications are found at TRM-12-Q-BPA-18.

A. My name is Scott Wilson, and my qualifications are found at TRM-12-Q-BPA-19.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to explain 1) the function of and process used to develop the Contract High Water Mark (CHWM); 2) the function of and process used to develop the Rate Period High Water Mark (RHWM); 3) the methodology used to determine above-RHWM load during the Transition Period (FY 2012, 2013, and 2014); 4) the method for determining Tier 2-priced purchase amounts during the Transition Period; and 5) the method for determining Tier 2-priced purchase amounts after the Transition Period. This testimony makes use of defined terms in the Tiered Rate Methodology (TRM); *see* TRM pages v-xvii.

Q. How is your testimony organized?

A. This testimony contains five sections, including this introductory section. In section 2, we provide an overview of High Water Marks (HWMs) and their role in the TRM. In section 3, we address the methodology for developing CHWMs and RHWMs. In section 4, we address the Transition Plan for the TRM to provide planning certainty to customers and BPA prior to the start of power deliveries under the CHWM Contracts.

In section 5, we address the method for determining Tier 2-priced purchase amounts after the Transition Period.

Section 2: Overview of High Water Marks

Q. What role would HWMs play in BPA's Tiered Rate Methodology?

A. HWMs would be the dividing line between BPA's pricing service at Tier 1- and Tier 2-based rates on a forecast amount of annual energy. It would be the starting point for determining the amount of power each customer would be eligible to purchase at the Tier 1 Rate and would define the remainder of a customer's planned power service as "above-RHWM load." HWMs would be measured in annual average megawatts and based upon 1) a customer's firm retail load and 2) the forecast firm critical output of a defined set of Federal resources (Tier 1 System Resources) including limited Augmentation amounts. *See* TRM section 3; *see also* Misley *et al.*, TRM-12-E-BPA-04. HWMs would be used to proportionately distribute costs of Tier 1 System Resources among eligible BPA customers based on their load. The Tier 1 and Tier 2 pricing would not limit the amount of power a customer may buy from BPA; its Net Requirement does. Consistent with section 5 of the Northwest Power Act, the maximum amount of Priority Firm power a customer may purchase is limited by the customer's Net Requirement.

Q. How would a customer's HWM and Net Requirement interrelate?

A. A customer's HWM would establish only the prices applicable to the amount of power the customer is eligible to purchase. This price limitation would not affect a customer's right to have BPA meet its Net Requirement. To the extent that a customer elected BPA to serve its Net Requirement in excess of its RHWM, BPA would serve that portion of the customer's Net Requirement at a Tier 2 Rate.

Q. Please explain the different types of HWMs that BPA would develop.

A. BPA would develop four different HWMs. Each HWM would play a different role in either estimating or determining a customer's eligibility to purchase power at Tier 1 Rates.

1) The Forecast Contract High Water Mark (FHWM) would be calculated before the CHWM Contracts are signed and would be provided to customers solely as an estimate and planning tool. It would be calculated in a manner similar to that used to calculate the CHWM, with some limited differences, and is designed to give the customers an early indication of the amount of power they would be eligible to purchase at Tier 1 Rates. By providing the FHWM almost three years before power deliveries begin, a customer would have sufficient time to assess its options regarding whether it would elect to serve its above-RHWM load itself or elect to have BPA provide the above-RHWM load service.

2) The Transition Period High Water Mark (THWM) would be calculated in FY 2009 and would be used to establish a customer's planned above-RHWM load for the Transition Period (FY 2012-2014). Based on this planned load determination, customers would commit to a supplier(s) to serve their above-RHWM load, either BPA or Non-Federal Resources or both. The Transition Period is discussed in further detail later in this testimony.

3) The Contract High Water Mark (CHWM) would be calculated in FY 2011 and would formally establish in the CHWM Contracts the initial amount of power each customer would be eligible to purchase at Tier 1 Rates. The CHWM determination process would set the specific amount of Augmentation that BPA would initially include in Tier 1 System Resources.

4) The Rate Period High Water Mark (RHWM) would be calculated prior to each Rate Period and would define a customer's maximum eligibility to purchase an amount of

Federal power at Tier 1 Rates for that Rate Period, subject to the customer's Net Requirement limitation.

Section 3: CHWM and RHWM Determinations

Q. Please explain the proposed role of the CHWM.

A. The CHWM would be used to define an amount of Federal power that a customer would initially be eligible to purchase at Tier 1 Rates. Each of the current Publics would receive a CHWM that is based on its Eligible Load (Measured FY 2010 Load net of its Existing Resources) and the average forecast firm critical output of Tier 1 System Resources for the first Rate Period (FY 2012-2013). The effect would be to distribute the costs of the Tier 1 System Resources among eligible customers based on their Eligible Load and the amount of power they could take from BPA for that load. Once established, customers' CHWMs would not change during the term of the CHWM Contract, except in rare circumstances.

Q. What is the proposed role of the RHWM?

A. The RHWM would set the maximum amount of Tier 1-priced power that a customer could purchase each year of the Rate Period, subject to the limits imposed by the customer's Net Requirement. The RHWM would be calculated prior to each rate case to account for changes in the firm critical output of Tier 1 System Resources that may occur due to, for example, changes in fish requirements or the de-rating of a generating resource. This periodic adjustment process would help to set Tier 1 Rates for the Rate Period that track changes in firm critical output of Tier 1 System Resources, so that neither the customers nor BPA would be exposed unnecessarily to the risk of over- or under-recovery of Tier 1 System Resources costs.

As a dividing line, the RHWM would also set a customer's above-RHWM load amount as part of determining Tier 2 Rates. Planned amounts of Net Requirement

purchases in excess of the a customer's RHWM would be the basis for determining Tier 2 Rates designed to recover the costs of the incremental power needed to meet customers' above-RHWM load.

Q. How would the RHWM be established for the initial rate period (FY 2012-2013)?

A. Because the CHWMs would be determined just prior to the start of the initial Rate Period, rather than making a separate calculation of the RHWM, the RHWM would be set equal to the CHWM for this first Rate Period. Beginning with the rate case that would develop rates for FY 2014-2015, the RHWM would be calculated prior to each rate case.

Q. What are the proposed elements of CHWM calculations?

A. The CHWMs are intended to provide a transparent distribution among eligible customers of power costs allocated to Tier 1 Cost Pools. The initial cost distribution would be based on the customer's Eligible Load, which is the utility customer's Measured FY 2010 Load, with adjustments for weather normalization and anomalies, less the customer's Existing Resources. The Eligible Load would be proportionally scaled to the firm critical output of Tier 1 System Resources. The preliminary determination of each customer's CHWM would then be adjusted to account for the credited conservation achieved by each utility that reduces its Measured FY 2010 Load. The result of these calculations would be a utility's CHWM. The customer's CHWM would be the basis for the *pro rata* distribution among customers of costs allocated to the Tier 1 Cost Pools. The calculation of the CHWM is more fully described in TRM section 4.2.

Q. What are the differences between the calculations of the FHWM and CHWM?

A. The FHWM would be primarily a planning tool for customers to have an early estimate (FY 2008) of the amount of their load that would be served at Tier 1 Rates. As noted, the CHWM, which would be formally established in the CHWM Contracts, would

represent the initial amount of power each customer would be eligible to purchase at Tier 1 Rates. The key difference between the calculation of the FHWM and CHWM involves how a customer's retail load would be determined. For the FHWM calculation, BPA would use a forecast of a customer's FY 2010 Total Retail Load (TRL) for the load portion of the calculation. In contrast, the CHWM calculation would use a customer's actual Measured FY 2010 Load that would be normalized for the effects of atypical weather and load and data anomalies.

There also would be a slight difference in determining customers' Existing Resources that would be subtracted from their adjusted Measured FY 2010 Load. The Existing Resources shown in TRM Attachment B would be used to calculate customers' FHWMs prior to the signing of CHWM Contracts. However, Attachment B will not include consumer-owned resources and PURPA resources that customers may later dedicate to serve their loads until customers sign the CHWM Contracts and make such resource declarations. Attachment B would be updated at that time. This additional resource information will not be available at the time the FHWMs would be calculated, but it would be included in the updated Attachment B that would set the Existing Resources for the CHWM calculation.

Q. How is Total Retail Load defined in the TRM?

A. TRL is defined in the TRM as all measured retail electric power consumption, including electric system losses, within a customer's distribution system, excluding 1) unmetered loads or generation; 2) nonfirm or interruptible load as agreed to by BPA and the customer; 3) transfer loads of other utilities served by the customer; and 4) any loads not on the customer's distribution system that are not agreed to by BPA.

Q. Is this definition of TRL correct?

A. No. The definition should be: "All measured retail electric power consumption, including electric system losses, within a customer's distribution system, <u>adjusted for</u>

1) unmetered loads or generation; 2) nonfirm or interruptible load as agreed to by BPA and the customer; 3) transfer loads of other utilities served by the customer; and 4) any loads not on the customer's distribution system that are not agreed to by BPA." The correction is shown underlined.

Q. How is TRL adjusted for the determination of the CHWM?

A. For the CHWM calculation, BPA would determine the TRL for each customer for FY 2010 (Measured FY 2010 Load). BPA would normalize this load amount to reflect historical average temperature, average irrigation season load, and load or load data anomalies that materially affected the Measured FY 2010 Load. These normalizing adjustments are discussed in greater detail later in this testimony.

Section 3.1: Measured FY 2010 Load

Q. How would BPA determine a customer's Measured FY 2010 Load?

A. The Measured FY 2010 Load would be determined using either the kilowatthour recordings supplied from either BPA or customer metering equipment directly linked to BPA, or kilowatthour meter data supplied by customers for meters not linked to BPA. The supplied metered data that is not directly linked to BPA must be verified by BPA with alternative data sources. BPA has the metering in place to record most of its customers' TRLs; however, for some customers the meter data would necessarily be supplied to BPA by the customer in an electronic format. In such cases, the customer's purchased Federal power amounts that pass through BPA's Point of Delivery meters would provide a starting point to calculate the load. BPA would add to this amount of BPA-provided power the measured output of the customer's Non-Federal Resources, net of any wholesale sales. BPA would identify any other generation or purchased power amounts serving a customer's firm retail load and add the measured output dedicated to retail load to the other measured load amounts. In situations where the data could not be

obtained from BPA or customer meters, BPA would request the retail load information that would be supplied to FERC as part of the customer's annual 714 Report submittal. BPA would then verify this information with alternative data sources. *See* TRM section 4.2.1.

Q. How would load forecasts affect the final CHWM values in FY 2010?

A. They would have no effect. The CHWM values would be based on actual measured values. We discuss the role of load forecasts in the determination of the FHWM, THWM, and above-RHWM load amount during the Transition Period individually in this testimony.

Q. Are there other ways to measure TRL and other methods of performing normalizing adjustments?

A. Yes, there are alternate ways that customers may use to determine TRL, and likewise other methods to adjust for various types of events that may affect a customer's TRL. We have proposed the methodologies described in this testimony and in the TRM because they provide an effective and cost-conscious methodology for determining and normalizing customers' TRLs for the CHWM determination process.

Q. What adjustments would be made to the Measured FY 2010 Load?

A. As described above, the Measured FY 2010 Load determined for each customer would be corrected for the effects of atypical weather and material load and data anomalies.

Section 3.1.1: Adjusting Measured FY 2010 Load for Anomalies

Q. What is the purpose of the load data anomaly adjustment?

A. The Measured FY 2010 Load is intended to provide a representation of the load a customer would experience under normal circumstances. Anomalies in the actual FY 2010 firm retail load or in the metered load data (*e.g.*, missing or corrupted data) could occur as the result of unusual circumstances and could either inflate or deflate a

customer's Measured FY 2010 Load. The resulting changes to the Measured FY 2010 Load could result in a customer receiving a CHWM that is not representative of what would otherwise be considered its retail load under normal circumstances. To avoid either penalizing or rewarding customers based on these unusual or anomalous circumstances, the anomaly adjustment process is proposed to ensure the CHWM calculations are not materially influenced by such events.

Q. Has BPA proposed criteria it will use to determine whether a particular event qualifies as an anomaly?

A. Yes. BPA has proposed criteria to determine whether a particular event qualifies as an anomaly. The purpose of the criteria is to apply uniform standards for the decision regarding when BPA would decide whether or not a particular event necessitated an adjustment to a customer's Measured FY 2010 Load. The criteria would help to ensure that a consistent set of standards would be applied among customers and to limit the adjustments to only those circumstances where the load was inappropriately influenced.

This adjustment is designed to be used in cases where the following criteria are met: 1) the load data is materially distorted, due to 2) a discrete event that impacts 3) a verifiable, historical load, and 4) the customer has no role in causing or contributing to the distortion to the load data.

Q. What is considered a "material distortion," and why is this threshold amount proposed?

A. A discrete event would have caused a material distortion to a customer's Measured FY 2010 Load if it changes a customer's CHWM by 10 percent or more, or by 10 average megawatts (aMW) or more. These threshold amounts are proposed to ensure that the change in measured load is significant, relative to any margin of measurement error in the initial load data and in the estimated effect of event.

Section 3.1.2: Adjusting Measured FY 2010 Load for Atypical Weather

Q. Would BPA adjust the load data for effects of atypical weather?

A. Yes. BPA would adjust the Measured FY 2010 Load to normalize the load data for the impact of atypical weather on load. BPA would use different methods of weather normalization depending upon whether the load is non-irrigation or irrigation load. *See* TRM section 4.2.1.2 and TRM Figures 4.2 and 4.3.

Q. How would BPA adjust the non-irrigation loads?

A. BPA would use standard techniques to make regular statistical estimates of the impact of temperature on the load. The proposed method would estimate the impact of heating load, usually in the winter when cold temperatures result in an increased load, typically for space heating. The method also would separately estimate the impact of cooling load, typically in the summer when warmer temperatures increase air conditioning usage. This estimation would be done at the consumer level and would result in a weighted impact of the individual effects of consumer classes.

Q. What temperature data would be used to estimate these effects?

A. We propose to use temperature readings from national weather stations close to the load centers for each customer along with recorded customer loads for this analysis.

Q. How would BPA create these estimates for those few customers where BPA would not have recorded loads?

A. To make sure we would be treating all customers similarly, we would require customers to supply BPA with recorded load data from a verifiable source so we could do the same calculations on their loads with temperatures that BPA would obtain from a national weather station.

Q. Why would you try to treat all customers similarly in this process?

A. We are proposing a goal of using transparent, consistent methods for all customers in calculating the CHWM to reduce as much as possible the impact that variations in

methodologies may have on the outcome of the results. Because any change in a customer's CHWM would affect the CHWM of all other customers, BPA would use consistent methodologies across the customer base, to the degree possible, in its calculation of CHWMs.

Q. What method are you proposing to normalize irrigation loads?

A. We propose to determine the amounts of irrigation load contained in each customer's Measured FY 2010 Load and normalize those irrigation loads separately from the non-irrigation loads, using a different method. Different methods would be required because irrigation loads are affected differently by weather conditions than non-irrigation loads. Irrigation loads have a much larger variation from year to year than within a year. This is because the primary response is due to water supply (rain fall, snowpack, and water table levels) and demand (the differing water needs of various crops). During the early summer months when the temperature is highest, the water requirements are greatest for normal crop growth, and irrigation tends to operate regularly regardless of the day-to-day temperature variations. The growing season for many crops ends in July, and watering requirements will end, while non-irrigation loads such as air conditioning continue. As a result, we propose to determine the amounts of irrigation load contained in each customer's Measured FY 2010 Load and then normalize those loads separately.

Section 3.2: Existing Resources

Q. What is the next step in the proposed CHWM determination process?

A. The next step would be to subtract each customer's Existing Resources from its adjusted Measured FY 2010 Load to derive its Eligible Load.

Q. How would Existing Resources be determined for purposes of the calculation of the CHWM?

A. As described in TRM section 4.2.2, BPA would use the customer's Non-Federal Resource amounts identified in Exhibit C of its Subscription contract, as of September 30, 2006, and designated to serve its load in FY 2010, to determine the resource amounts that will be subtracted from the customer's adjusted Measured FY 2010 Load.

Q. Does the Subscription contract Exhibit C provide the required resource information?

A. Yes, in most cases. However, we have discovered that the applicable Exhibit C for certain customers does not contain the information needed to apply the method described above to determine Existing Resources. For these customers, the information unavailable in the Exhibit C is the result of errors or omissions in the resource amounts identified to serve the customer's retail load in FY 2010. The errors exist primarily in cases where there was a pre-existing change in the firm capability of a resource designated to serve load in FY 2010, but the Exhibit C was not timely updated to reflect that change. The omissions exist primarily in cases involving resources for which the declared capability was being updated annually, including hydro resource updates to reflect changes resulting from Pacific Northwest Coordination Agency resource planning. For these resources, there was no forecast capability identified to serve load in FY 2010.

Q. How do you propose to determine Existing Resource amounts for a customer with defects in its applicable Exhibit C?

A. The criteria for making adjustments to these customers' Existing Resources will be addressed in the Supplemental ROD to the Long-Term Regional Dialogue Policy.

Section 3.3: Conservation Adjustment

Q. Why do you propose a conservation adjustment as part of the CHWM calculation?

A. The conservation adjustment to the preliminary CHWM is intended to minimize the disincentive for customers to undertake conservation measures during FY 2007 through FY 2010. Because conservation may reduce a customer's FY 2010 load, and

consequently lower its CHWM, BPA would make a conservation adjustment to the FY 2010 load. Without the conservation adjustment, the CHWM calculations would distribute the benefit of conservation achieved equally among all customers, rather than considering what portion of the conservation was achieved by each customer and what percentage of each customer's load was reduced through its respective conservation efforts. The conservation adjustment considers these factors in adjusting CHWMs to reflect the amount of eligible conservation each customer has achieved over the time period.

Q. *Why do you propose that energy savings must be cost-effective to count toward the conservation adjustment?*

A. BPA has an obligation under the Northwest Power Act to acquire cost-effective conservation and has committed to achieving BPA's share of the regional conservation targets developed by the Northwest Power and Conservation Council (Council). The Council uses a total resource cost (TRC) test to develop the conservation potential and targets, so only TRC cost-effective BPA-funded conservation would count toward the targets. Spending BPA money on non-cost-effective conservation would reduce the limited amount of money BPA has to achieve its conservation targets. Thus, expenditures made by customers with Conservation Rate Credit or Conservation Acquisition Agreement funding must be made on TRC cost-effective conservation. Similarly, conservation savings that are acquired through utility self-funded measures and/or programs and credited toward the CHWM conservation adjustment would be required to be TRC cost-effective. Since BPA is providing an incentive to utilities (through a CHWM conservation adjustment), BPA would count utility self-funded conservation toward its regional target if it is TRC cost-effective pursuant to the Council's requirement.

Q. *Why do you propose that the energy savings must be verified?*

A. There are three primary reasons the energy savings must be verified. First, in order for there to be certainty that both BPA-funded and utility-funded measures and projects have equal value, all measures and projects must be verified in a similar manner. BPA would use the standards set forth in BPA's Conservation Rate Credit and Conservation Acquisition Implementation Manual to verify savings. Second, verification is needed to ensure fairness and accuracy in adjustments to CHWMs for credited conservation. Third, because the region relies on this conservation to meet a portion of load, there needs to be assurance that the conservation resource is producing the expected kilowatthour savings.

Section 4: The Transition Period

Q. Why have you proposed a Transition Period before the full implementation of RHWM in a rate case?

A. The Transition Period is proposed to provide planning certainty for both BPA and customers regarding planned Federal power service for each customer's above-RHWM load. The calculation date for the CHWM would not occur until approximately June 2011. This date would be too close to the October 1, 2011, initial delivery of power for FY 2012 to allow customers to make considered decisions whether to self-serve all or a portion of their above-RHWM load. Correspondingly, BPA could not make informed resource acquisition decisions without timely notice of the amount of customers' above-RHWM load that the customers would obligate BPA to serve.

To address this issue, the Transition Period plan described in TRM section 4.4 would set each customer's above-RHWM load in FY 2009 for FY 2012-2013 for ratemaking purposes and would create a forecast of this value for FY 2014 for all customers (*see* Fisher *et al.*, TRM-12-E-BPA-06, for details). Later in FY 2009, customers would commit to specific above-RHWM purchase amounts for at least the FY 2012-2013 Rate Period if they choose to have BPA serve all or a portion of their

above-RHWM load. As a result, both the customers and BPA would have more time to plan for resource acquisitions than would have been afforded through the CHWM process.

Q. What would be the role of the CHWM during the Transition Period?

A. As previously noted, the CHWM would be calculated in FY 2011 and used in the WP-12 rate case to set customers' RHWMs and consequently their eligibility to purchase at Tier 1 Rates for the FY 2012-2013 Rate Period. However, a customer's above-RHWM load and related Tier 2-priced purchase elections for this Rate Period would already have been set in FY 2009 under the Transition Period method, as previously described.

Q. For Block and Slice/Block customers, what if, due to inaccurate forecasts of load or resources, a customer would have over- or under-committed to purchase power from BPA to serve its above-RHWM load in FY 2012-2014?

A. If a Block or Slice/Block customer chose in FY 2009 to have BPA serve any of its above-RHWM load during the Transition Period, it would commit to purchase a specific amount of Tier 2-priced power for each year of FY 2012-2014. However, a customer's CHWM or its TRL may be different than the forecasted amounts used to determine its THWM. This could occur due to inaccurate forecasts of load or resources when the THWMs are determined. One result could be that the customer would not need the full amount of Tier 2-priced power that it had committed to purchase for that year. In this case, a customer would have over-committed to purchases to meet its above-RHWM load. For discussion of how the over-commitment to purchase would be treated during the Transition Period, *see* Fisher *et al*., TRM-12-E-BPA-06, sections 2.3 and 3.4. The other result of inaccurate forecasts of load or Tier 1 System Resources would be that those customers under-commit to purchase BPA power at a Tier 2 Rate to serve their above-RHWM load. In this case, the customer would be responsible for providing the

additional power needed through Non-Federal Resources to meet its above-RHWM load obligation.

Q. What if a Load Following customer's above-RHWM load in FY 2012 and 2013 is different from forecast?

A. The proposed Load Shaping Charge would provide a market-based credit to the customer for any over-commitment to purchase Tier 2-priced power and a market-based charge for any under-commitment to purchase Tier 2-priced power. *See* Fisher *et al*., TRM-12-E-BPA-06, section 2.3.

Section 5: Tier 2-Priced Purchases and the RHWM Process

Q. In the RHWM Process, how would above-RHWM load amounts and Forecast Net Requirements be determined for the third year of the Transition Period?

A. Prior to each Rate Period, above-RHWM load amounts for each customer would be set by BPA in the RHWM Process. First, BPA would determine each customer's RHWM. Then, BPA would forecast each customer's TRL minus Existing Resource amounts. The customer's above-RHWM load will be set as the amount that its TRL minus Existing Resources exceeds its RHWM. Each customer's contract would be consulted for the election the customer had made regarding how its planned amount of above-RHWM load would be served. To the extent that BPA would be obligated to serve any portion of a customer's above-RHWM load, the power sold would be priced at a Tier 2 Rate. The combination of the customer's planned service amounts to be purchased from BPA at Tier 1 and Tier 2 rates would equal its Forecast Net Requirement for ratesetting purposes.

Q. Please describe how BPA would set an amount of service at Tier 2 Rates for a customer during a Rate Period.

A. Depending on the customer's contract election to serve its above-RHWM load (i.e., power from Non-Federal Resources, power from BPA at a Tier 2 Rate, or a combination of the two), the load amounts to be served at Tier 2 Rates would be set for the Rate Period. Block and Slice/Block customers, however, would have already obligated BPA to serve planned amounts of load at Tier 2 rates for a Rate Period through their contract election by the time the RHWM Process would occur. The annual Net Requirement determination would ultimately determine how much power a customer could purchase in a year and could limit deliveries of Federal power for the Block and Slice/Block customers to amounts less than the amounts of contracted BPA power purchase amounts. In this event, BPA would reduce the Tier 2-priced power deliveries so that they do not exceed the customer's Net Requirement. However, the take-or-pay obligation for the committed amount of Tier 2-priced power would remain for the Block or Slice/Block customer. The customer would receive a market value-based billing credit through the remarketing of the Tier 2-priced amounts that would not be available to the customer. *See* Fisher *et al*., TRM-12-E-BPA-06, section 3.4.

Q. Does this conclude your testimony?

A. Yes.

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TESTIMONY of

DANIEL H. FISHER, RAYMOND D. BLIVEN, GERARD C. BOLDEN,

ANNICK E. CHALIER, and CARIE E. LEE

Witnesses for Bonneville Power Administration

SUBJECT: RATE DESIGN

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Witnesses for Bonneville Power Administration

SUBJECT: RATE DESIGN

Section 1: Introduction

Q. Please state your names and qualifications.

A. My name is Daniel H. Fisher, and my qualifications are contained in TRM-12-Q-BPA-06.

A. My name is Raymond D. Bliven, and my qualifications are contained in TRM-12-Q-BPA-01.

A. My name is Gerard C. Bolden, and my qualifications are contained in TRM-12-Q-BPA-02.

A. My name is Annick E. Chalier, and my qualifications are contained in TRM-12-Q-BPA-03.

A. My name is Carie E. Lee, and my qualifications are contained in TRM-12-Q-BPA-11.

Q. What is the purpose of your testimony?

A. Our testimony discusses the Priority Firm Power (PF) rate design as proposed in the Tiered Rate Methodology (TRM), TRM-12-E-BPA-01. This testimony makes use of defined terms in the TRM; *see* TRM pages v-xvii.

Q. How is your testimony organized?

A. Section 1 is this introduction. Section 2 discusses Tier 1 rate design. Section 3 discusses Tier 2 rate design. Section 4 discusses the Shared Rate Plan. Section 5 discusses Resource Support Services (RSS).

Q. Which sales of Federal power would be subject to tiered rates established in accordance with the TRM?

A. Sales made pursuant to section 5(b)(1) of the Northwest Power Act to public body and cooperative utility customers and Federal agency customers (collectively known as "Publics") of BPA would be subject to tiered rates established in accordance with the TRM. BPA will be offering long-term Regional Dialogue power sales contracts to the Publics that will provide for the application of PF tiered rates to the power sold by BPA under such contracts. In this testimony, we describe the tiered rates that would be applied to those sales.

Section 2: Tier 1 Rate Design

Section 2.1: Overview

Q. What are the main components of the proposed Tier 1 rate design?

A. The Tier 1 rate structure consists of three basic elements—Customer Charges, a Demand Charge, and a Load Shaping Charge

Q. How would the Customer Charges generally operate under the proposed rate design?

A. There would be three Customer Charge rates. Two Customer Charge rates would apply to Load Following and Block customers, while all three Customer Charge rates would apply to Slice/Block customers. These Customer Charge rates would work much like the Slice rate does today, except that Load Following and Block purchasers would not have an annual true-up. For Load Following and Block customers, there would be a specific Non-Slice Customer Rate plus a Composite Customer Rate. For Slice/Block customers, there would be a specific Slice Customer Rate (for the Slice portion of the Slice/Block purchase), a specific Non-Slice Customer Rate (for the Block portion of the Slice/Block

purchase), and the same Composite Customer Rate as Load Following and Block customers pay.

For Load Following and Block customers, each customer's Rate Period High Water Mark (RHWM) would be divided by the sum of all RHWMs to establish the Billing Determinant for the Customer Charges. *See* Stene *et al.,* TRM-12-E-BPA-05, for a discussion of RHWM. The result of this calculation would be each customer's Tier 1 Cost Allocator (TOCA). The exception to this Billing Determinant calculation would be if a customer's Forecast Net Requirement is less than its RHWM; then the Forecast Net Requirement would be used as the Billing Determinant.

Unlike Load Following and Block customers, Slice/Block customers would have three TOCAs. The first TOCA would be calculated using the same method used for Load Following and Block customers and would be the Billing Determinant that is applied to the Composite Customer Rate. A second TOCA, referred to as the Non-Slice TOCA, would be the Billing Determinant that is applied to the Non-Slice Customer Rate. The third TOCA, referred to as the Slice TOCA or Slice Percentage, would be the Billing Determinant that is applied to the Slice Customer Rate. *See* TRM section 5.1.6

Q. How would the Load Shaping Charge generally operate under the proposed rate design?

A. We are proposing to replace the energy rates and load variance rate used in the WP-07 rate design with a Load Shaping Charge. The WP-07 rate design uses 24 energy rates for each year; we are proposing to replace those energy rates with 24 Load Shaping Rates. In the WP-07 rate design, BPA forecasts market prices for the 24 monthly/diurnal periods of the year and then scales those forecast prices downward until PF revenues equal costs allocated to PF. In the future, the scaling process would not be used; the Load Shaping Rate would be set at forecast market prices.

The Billing Determinant for the Load Shaping Charge would be much different from the Billing Determinant in the WP-07 energy rates. In the WP-07 rate design, the energy rates are applied to the total kilowatthours purchased during each monthly/diurnal period. For the Load Shaping Charge, the rates would be applied to a smaller amount of energy during each of the 24 monthly/diurnal periods. BPA would establish the expected kilowatthours of generation from the Tier 1 System Resources. Then the forecast amount each customer would be allowed to purchase at Tier 1 Rates would be determined by multiplying the expected firm critical output of Tier 1 System Resources by the ratio of the customer's RHWM to the total of all customers' RHWMs. The exception to this calculation would be if a customer's Forecast Net Requirement was less than its RHWM, in which case the Forecast Net Requirement would be used. The product would be subtracted from the customer's actual Tier 1 energy purchase for that period to establish the Load Shaping Charge Billing Determinant.

Load Shaping Billing Determinants would be both positive and negative. If a customer's load is exactly what was forecast, the total of the Billing Determinants would be zero for the year. However, even if the total of the Billing Determinants was zero, the total Load Shaping Charges for the year may not be zero. The total annual charges would depend on which periods the customer would receive a charge and the rates for those periods compared to the rates when the customer would receive a credit.

Q. How would the Demand Charge generally operate under the proposed rate design?

A. We propose significant changes to the Demand Rate and Demand Billing Determinant relative to WP-07 rates. The Demand Rate would be considerably higher than the WP-07 Demand Rates but would apply to much smaller Billing Determinants.

The Demand Rate would be set based on the fixed costs of the most common generation technology for supplying capacity, which we currently anticipate to be a

single cycle combustion turbine. However, the actual determination of the appropriate technology to supply capacity would be a subject of each rate case implementing the TRM. We have proposed that this fixed cost-based rate be shaped through the year in a manner similar to WP-07 Demand Rates.

In WP-07, the Demand Billing Determinant is a customer's hourly load on BPA on the hour of BPA's Generation System Peak for each month. The TRM-proposed Demand Billing Determinant would be the customer's maximum hourly load on BPA during Heavy Load Hours minus the average load on BPA during all Heavy Load Hours for the month, minus a grandfathered amount of Demand (called the Contract Demand Quantity or CDQ). The CDQ would be based on each customer's historical Heavy Load Hour load factor applied to the customer's adjusted Measured FY 2010 Load. These CDQs for each month would be specified in the customer's contract.

Section 2.2: Customer Charges

Q. How does the proposed Tier 1 rate design differ from BPA's current rate design?

A. For current customers purchasing products other than the Slice product, BPA's current rate design is based on monthly Heavy Load Hour and Light Load Hour energy rates (mills per kilowatthour). We are proposing to replace this design with one that is composed of three Customer Charges and a Load Shaping Charge that are based upon a customer's percentage share of BPA's total costs rather than a per-kilowatthour charge. The current rate design energy charges recover almost 90 percent of the PF revenue requirement. The proposed rate design customer charges would recover about 95 percent of the PF revenue requirement.

Q. How would the three Customer Charges generally operate under the proposed rate design?

A. The three Customer Charges would each be a dollar-per-one percent rate, much like the current Slice rate. As indicated above, these Customer Charges would collect the majority of BPA's Tier 1 Costs and would be based on each customer's percentage share of the applicable Tier 1 Cost Pools. The customer's percentage share would be based upon the customer's TOCA. *See* TRM section 5.1.2.

Q. Why have you proposed three separate Customer Charges?

A. We propose three Customer Charges to allocate costs and credits among the various products (Load Following, Block, and Slice/Block) in a manner consistent with the cost allocation principles. *See* TRM section 2. Most of BPA's costs are the responsibility of all PF customers. However, some costs are proposed to be entirely recovered from either Block and Load Following customers and some entirely from Slice customers. The three charges would allow all of BPA's costs recovered through Tier 1 rate to be recovered from the appropriate groups of customers.

Q. What are the three proposed Customer Charges?

A. The three proposed Customer Charges are the 1) Composite Customer Charge; 2) Non-Slice Customer Charge; and 3) Slice Customer Charge. The Composite Customer Charge would recover the costs in the Composite Cost Pool and would be charged to all customers taking service at Tier 1 Rates. The Non-Slice Customer Charge would recover the costs of the Non-Slice Cost Pool and would be charged to customers purchasing Load Following and Block products, including the Block portion of the Slice/Block product. The Slice Customer Charge would recover the costs in the Slice Cost Pool and would be charged to customers taking the Slice/Block product for the Slice portion.

Q. *What are the proposed Billing Determinants for these Customer Charges?*

A. The customer's TOCA would be the Billing Determinant for the two Customer Charges applicable to Load Following and Block product purchases. For Slice/Block product purchases, the Billing Determinants would be the customer's TOCA for the Composite Customer Charge, the customer's Slice Percentage (or Slice TOCA) for the Slice Customer Charge applied to the Slice product purchase, and the customer's Non-Slice TOCA for the Non-Slice Customer Charge applied to the Block product purchase. *See* TRM section 5.1.3.

Q. *How would BPA calculate a customer's TOCA?*

A. Each customer's TOCA would be based on the lesser of the customer's RHWM or the customer's Forecast Net Requirement and would be calculated as a percentage of the total RHWMs for all customers.

Q. *When would BPA calculate the Customer Charge Billing Determinants for each customer?*

A. BPA would calculate and forecast an annual TOCA for each customer during the relevant rate case. BPA would set Customer Charge rates based on these forecasts.

Q. *How would these Customer Charges be different from the rate that the Slice customer pays today?*

A. In the TRM period, there would be two rates (Composite Customer Rate and Slice Customer Rate) that the Slice/Block customers would pay for the Slice portion of their contract, compared to one rate (Slice rate) in the current Rate Period.

Q. *If there would be two rates applied to the Slice portion of the Slice/Block contract instead of one rate, would Slice customers pay more under the TRM than they do today?*

A. All other things being equal, no. Due to some changes in the amount and type of costs and credits that would be allocated to the new Slice product, it is possible that the

combination of the Composite Customer Rate and the Slice Customer Rate could be higher for Slice customers than the rate for the existing Slice product. However, that would be a result of changes to cost allocations rather than rate design. If cost allocations did not change, the two Customer Charges (based on the Composite Customer Rate and the Slice Customer Rate) would charge the Slice customers the same set of costs that are charged to them under the Slice rate for the existing Slice product. While some of the line items would be renamed and the organization of the various Cost Pools would be different than the existing Slice True-up and Costing Table, the fundamental basis for the allocation of costs between Slice and non-Slice products is not proposed to change.

Q. *Please explain the basis of the Composite Customer Cost Pool and Slice Customer Cost Pool and how it would apply to Slice customers.*

A. The Composite Customer Cost Pool in combination with the Slice Customer Cost Pool would contain virtually the same set of costs and credits that were included in the existing Slice revenue requirement. The Composite Cost Pool would include costs and credits that apply to all customers, both Slice and non-Slice. The Slice Customer Cost Pool would contain the costs and credits that are applicable to only the Slice product. For the most part, these latter expenses are Slice Implementation Expenses that only the Slice/Block customers are responsible for paying. The Slice Cost Pool would be the basis for the Slice Customer Rate.

Q. *How would the Non-Slice Customer Rate be applied to Slice/Block customers?*

A, Expenses and credits that do not apply to the Slice portion of the Slice/Block product would be included in the Non-Slice Cost Pool. Slice/Block customers would pay for such expenses on the Block portion of their purchase. For example, transmission expenses would not be applicable to the Slice product, except for those transmission expenses associated with *Designated BPA Contract Obligations (see* TRM Table 3.1,

beginning at line 70). These transmission expenses not applicable to the Slice portion of the Slice/Block product would be estimated and allocated to the Non-Slice Cost Pool, which would be the basis for the Non-Slice Customer Rate that would be applied to the Block portion of the Slice/Block purchase.

Q. *Would the Slice customers be responsible for 100 percent of the Slice Implementation expenses?*

A. Yes.

Q. *How would the Slice Customer Rate be calculated?*

A. The Slice Customer Rate would be the quotient of forecast Slice Implementation Expenses and the sum of Slice Customer Charge Billing Determinants. Rather than forecasting an amount for Slice Implementation Expenses, BPA may choose to recover actual costs entirely through the Slice true-up. In such a case, after each Fiscal Year, BPA would account for the actual costs that were accrued for Slice Implementation Expenses and calculate how much of this expense each Slice/Block customer would pay BPA through its Slice True-Up Adjustment charge. This cost recovery method is exactly the same as the method used in the existing Slice product for allocation of Slice Implementation Expenses.

Q. *Would it be possible for a Slice/Block Customer's TOCA to decrease?*

A. Yes. If BPA augmented Tier 1 System Resources for New Publics, the Customer's Slice TOCA would be decreased so that the Slice customer received the same amount of energy. The adjustment would ensure that the Slice customer received the same share of the firm critical output of Tier 1 System Resources that would occur before the Augmentation. Additionally, if an individual Slice/Block customer experienced a load loss, such that the load loss exceeded the amount of a customer's above-RHWM load, the Slice/Block customer's TOCAs would be adjusted to ensure that Slice/Block customer

did not receive more than its Net Requirement.

Q. What would happen to the allocation of Slice Implementation Expenses if the Slice TOCA for a customer decreased?

A. If the Slice TOCA for a customer decreased, the allocation of Slice Implementation Expenses for the Slice/Block customer group would change. The Slice Implementation Expenses must be paid for entirely by Slice/Block customers. Therefore, if the percent of Slice purchased decreased, the Slice Implementation Expenses would be reallocated among the remaining Slice/Block customers. For example, assuming that the total Slice percent purchased from BPA started at 25 percent, if one customer's Slice TOCA decreased from 5 percent to 2 percent, and that was the only customer whose Slice TOCA decreased, the total percentage of Slice purchased would now be 22 percent (25 percent minus 3 percent). The Slice/Block customer whose percentage decreased would now pay 9.1 percent (2 percent divided by 22 percent equals 9.1 percent) of the Slice Implementation Expenses. Accordingly, all other customers would pay a percentage of the Slice Implementation Expenses that was derived by dividing their Slice percentage by 22 percent instead of the original 25 percent.

Q. Other than a change in a Slice customer's Slice Percentage, could a Billing Determinant be changed after rates take effect?

A. Yes. A customer's TOCA could change during the Rate Period, but within-Rate Period TOCA changes would not change the posted rates. The TOCA of a Slice/Block or Block customer may be adjusted during the Rate Period if that customer's Net Requirement determination resulted in a change in eligibility to purchase power at Tier 1 Rates compared to the forecast in the RHWM Process. *See* TRM Section 5.1.2. By definition, BPA serves the Net Requirement for Load Following customers, and therefore Load Following customer TOCAs would not need to change for Net Requirement reasons

within the Rate Period. BPA may change a Load Following customer's TOCA prior to each Fiscal Year, however, if unanticipated changes in a Load Following customer's load would create excessive Load Shaping Charges (either a charge or a credit) that would otherwise result in large end-of-year Load Shaping Charge true-up payments, either to BPA or to the customer.

Q. *Is it possible to have two different TOCAs, one for each year of the Rate Period?*

A. Yes. A customer's TOCA is based on the lesser of its RHWM or Forecast Net Requirement. If a customer's Forecast Net Requirement would be below its RHWM and that customer is forecast to experience a change in load during the Rate Period, BPA would calculate a different TOCA for each year of the Rate Period to reflect the forecast below-RHWM load change.

Q. *How likely is it that the sum of annual TOCAs would be less than 100 percent?*

A. There is some probability that the sum of TOCAs would be less than 100 percent. This would occur if any customer's Net Requirement did not grow after FY 2010, or a customer had significant load loss beyond its ability to remove resources as consistent with the 5(b)9(c) Policy.

Q. *If that did occur, how would it affect Slice/Block customers?*

A. If the sum of TOCAs is less than 100 percent, each Slice/Block customer would pay a little more than its TOCA share of the Composite Cost Pool.

Q. *Please explain.*

A. Assume that the sum of the annual TOCAs is less than 100 percent; for example, 95 percent. Assume that a customer has a TOCA of 5 percent. When the sum of TOCAs is 95 percent, the customer with a 5 percent TOCA would effectively pay 5/95 of the costs and credits in the Composite Cost Pool. The customer's effective TOCA in this situation would be 5/95, or 5.263 percent instead of 5 percent.

Q. If the sum of annual TOCAs were less than 100 percent and Slice/Block customers were paying a slightly greater percentage of costs, would this not be inequitable, given that the Slice portion of the Slice/Block contract was supposed to pay a percentage of the Composite Cost Pool equal to the percentage of the Slice system generation output?

A. Paying a slightly greater percentage of costs would not be inequitable, because Slice/Block customers, like all other customers, would receive a credit in their Composite Customer Rate for unused RHWM amounts that would be either estimated in the rate case or subject to the Slice true-up and in either case assumed to be sold at a projected market price. If market prices are higher than Tier 1 Rates (the expected condition), the value of this credit in the Composite Cost Pool would more than compensate customers for the upward adjustment in the Composite Customer Rate due to the sum of TOCAs being lower than 100 percent. Because of this credit for unused RHWM amounts, customers would not be paying more than they would have had the sum of TOCAs been 100 percent.

Q. Do you have an analysis that demonstrates that Slice/Block customers would be paying no more than they would have if the sum of TOCAs were 100 percent?

A. Yes. Attachment A shows the results of an analysis of the effects of having 150 aMW of unused RHWM, using Slice Revenue Requirement data for FY 2007 from the WP-07 Final Proposal.

Q. Please summarize the results of this analysis.

A. The analysis shows that if market prices are above the effective average Slice rate for firm power, Slice customers would pay a lower effective rate than they would pay if unused RHWM energy is not included as a credit in the Composite Cost Pool.

The analysis also shows that the Slice True-Up Adjustment charge would not be totally matched with their percentage of the Composite Cost Pool paid for by their

charges, as explained below.

Q. What happens to the Slice true-up when the sum of TOCAs is less than 100 percent and Slice/Block customers are effectively paying more than their Slice Percentage of the costs and credits in the Composite Cost Pool?

A. The Slice true-up would not change. If the Slice/Block customer's Slice Percentage is 5 percent, then that customer's Slice True-Up Adjustment charge would be equal to 5 percent of the difference between the actual Composite Cost Pool costs and the Composite Cost Pool as forecast in the relevant rate case. The Slice True-Up Adjustment charge would not change as the TOCA changes, based on a smaller sum of Slice Percentages. If the true-up calculation resulted in a credit to the Slice/Block customers, the Slice/Block customer's Slice Percentage would apply.

Q. Why would BPA account for unused RHWM through adjusting the rates rather than increasing the customers' TOCA?

A. During the relevant rate case, BPA would account for the occurrence of unused RHWM amount through the Tier 1 Rates and not by increasing each customer's TOCA to reflect its new percentage share of BPA's costs. Using this method would provide the advantage of not having to change each customer's TOCA when another customer has unused RHWM. The rates would account for this by dividing the amounts in the appropriate Cost Pools by the available Billing Determinants. For example, if 10 percent of the output of the Tier 1 System Resources is forecast to be unused for the Rate Period, the Composite Cost Pool would be divided by the total Billing Determinants for the Rate Period, which would be 180 for a two-year Rate Period (90 each year) to calculate the annual dollar-per-one percent rate. The benefit of the unused RHWM would be reflected through a lower total cost of the Composite Cost Pool by incorporating the credit for the value of the unused RHWM amount.

Q. Would the value of the unused RHWM amount be subject to the Slice true-up?

A. Yes. The value of the unused RHWM amount would be updated for Slice true-up purposes, but only for the value of any unused RHWM amount attributable to the Slice portion of the Slice/Block product.

Q. Would BPA post the Tier 1 Rates as an annual dollar-per-one percent rate?

A. No. BPA would divide the annual rate by 12 to compute the monthly dollar-per-one percent rate. Customers will be billed the flat Customer Charge each month. However, customers could request that BPA shape their Composite Customer Charge in the event that they experience adverse cash flow effects. BPA would accommodate requests to reshape Customer Charges as long as the aggregate reshaping requested by customers was not forecast to adversely impact BPA's cash flow. *See* TRM section 5.1.1 for a discussion of shaping Customer Charges.

Section 2.3: Load Shaping Charge

Q. What is the proposed Load Shaping Charge?

A. The Load Shaping Charge would be a charge or credit that is based on the need to shape the firm output of Tier 1 System Resources to the monthly/diurnal shape of a customer's Tier 1 Load (load that BPA would serve at Tier 1 Rates). This charge would be applicable to customers purchasing Block (including the Block portion of the Slice/Block product) or Load Following products. The Load Shaping Charge would send a price signal for the differential values of monthly and diurnal energy use and apportion BPA's costs of Balancing Power Purchases to the loads that require such services.

Q. How would the Load Shaping Charge operate?

A. To develop the Load Shaping Charge, BPA would start with the System Shaped Load for each customer. A customer's System Shaped Load would be its forecast Tier 1 Load,

expressed in the shape of the forecast firm critical output of Tier 1 System Resources in each of the 24 monthly/diurnal periods of the year. BPA would compare each customer's System Shaped Load to its actual Tier 1 Load to establish a Load Shaping Billing Determinant. The Load Shaping Billing Determinant would effectively allocate the forecast balancing purchase costs to each utility based on the customer's contribution to BPA's forecast need for Balancing Power Purchases. During billing periods when the customer's System Shaped Load exceeds its Tier 1 Load, the customer would receive a credit on its bill. Conversely, during periods when the customer's System Shaped Load is less than its Tier 1 Load, the customer would receive a charge on its bill.

Q. Why have you proposed this Load Shaping Charge?

A. Block and Load Following products require BPA to make Balancing Power Purchases to the extent a customer's load service is not in the shape of the firm critical output of Tier 1 System Resources. As a consequence, the Load Shaping Charge would allocate the costs associated with balancing loads and resources to customers based on their load shape. The Load Shaping Charge would replace the monthly and diurnal price signals that BPA currently has in its energy rates. In addition, the Load Shaping Charge would charge or credit the customer for differences in its actual load compared to its Forecast Net Requirement. Therefore, if the actual above-RHWM load turned out to be less than the forecast above-RHWM load, the Load Shaping Charge would provide a credit to the customer. Conversely, the Load Shaping Charge would charge the customer if the actual above-RHWM load is greater than the forecast above-RHWM load. In effect, the Load Shaping Charge would act like a true-up for above-RHWM load forecast error.

Q. *Why would Slice be excluded from the Load Shaping Charge?*

A. Customers purchasing the Slice product balance their own loads and resources, because Slice is delivered in the shape of the output of the Tier 1 System Resources; as a result, Slice purchases would not require BPA to make Balancing Power Purchases.

Q. *How would the forecast revenues from the Load Shaping Charge be treated in rate development?*

A. In each rate case, BPA would forecast revenues received from the Load Shaping Charge and include them as a credit to the Non-Slice Cost Pool.

Q. *How many Load Shaping Rates would be posted for each Rate Period?*

A. BPA would post 24 or 48 (assuming a two-year Rate Period) Load Shaping Rates for each Rate Period, one for each of the 24 monthly/diurnal periods of a year.

Q. *How would BPA establish the Load Shaping Rate?*

A. In each of the future rate cases implementing this TRM, BPA would develop a Load Shaping Rate for each of the 24 monthly/diurnal periods in a year that is the forecast of wholesale market prices for that Rate Period determined in the relevant rate case.

Q. *Would BPA continue to forecast the costs associated with making Balancing Power Purchases to meet its load obligations during the rate case?*

A. Yes. Balancing Power Purchases are a known cost of serving load and would continue to be forecast for purposes of demonstrating recovery of BPA's revenue requirement. This cost would be allocated to the Non-Slice Cost Pool.

Q. *Would BPA's forecast of Balancing Power Purchase costs associated with the aggregate Tier 1 Load be equivalent to the forecast revenue received from customers from the Load Shaping Charge?*

A. No. While the methodologies to calculate the costs associated with each would be similar, the forecast revenue collected from the Load Shaping Charge would be different

from the forecast cost of Balancing Power Purchases included in BPA's revenue requirement. The Load Shaping Charge would net power purchases with power sales when it compared a customer's System Shaped Load against its actual Tier 1 Load. The forecast of Balancing Power Purchase costs included in the revenue requirement would separate power purchases from sales, with purchases defined as Balancing Power Purchases and power sales included in surplus sales. The two methods would also differ in the use of water years and forecast market price. The Load Shaping Charge would assign costs based on a single set of forecast market prices and a single firm critical forecast output of the Tier 1 System Resources. The determination of the Balancing Power Purchase costs would use a range of water years with matching market price forecasts for each water year.

Q. *Is it appropriate that the method to forecast Balancing Power Purchase cost used in the revenue requirement would differ from the method to forecast expected revenue received through the Load Shaping Charge?*

A. Yes. The Load Shaping Charge would not be intended to recover the actual costs associated with Balancing Power Purchases, but rather would be designed to send a marginal price signal to customers and to allocate the forecast costs of reshaping all customers' loads to the forecast firm critical output of Tier 1 System Resources. The revenue that would be forecast to be received through the Load Shaping Charge would be credited to the Non-Slice Cost Pool. Products for which purchasers would be subject to the Load Shaping Charge (Load Following and Block) are the same products whose rates would be allocated Balancing Power Purchase costs and be credited for the secondary sales credit. The separation of these costs and revenues in the Non-Slice Cost Pool would effectively provide the same equity and cost separation that is provided by BPA's current Heavy Load Hour and Light Load Hour energy rates.

Q. Would the inclusion of market-based Load Shaping Rates in the Tier 1 Rates constitute charging customers market-based rates for Tier 1 purchases?

A. No. There are three conditions that could occur under this proposal. First, a Load Following customer's Forecast Net Requirement could be greater than its RHWM. In this condition, whether the customer met its above-RHWM load with power from BPA or Non-Federal Resources, we expect that the customer would pay a rate close to market for this power. In this case, if the customer's actual load was higher or lower than forecast, it is appropriate to charge or credit the customer a market-based rate for the forecast error.

Second, a Load Following customer's Forecast Net Requirement could be less than its RHWM. In this condition, the customer would be purchasing at only Tier 1 Rates. In this case, if the customer's actual load was higher or lower than forecast, it would be appropriate to charge or credit the customer a Tier 1 Rate for the forecast error. Our proposal includes a Load Shaping True-up to accomplish this. *See* next section.

Third, a Load Following customer's Forecast Net Requirement could be equal to its RHWM. In this condition, the customer would be purchasing at only Tier 1 Rates. In this case, if the customer's actual load was lower than forecast, it would be appropriate to credit the customer a Tier 1 Rate for the forecast error. Our proposal includes a Load Shaping Charge true-up to accomplish this. *See* next section.

Section 2.4: Load Shaping Charge True-up

Q. Please describe your proposed Load Shaping Charge true-up.

A. The proposed Load Shaping Charge true-up would be an end-of-Fiscal Year calculation that is applicable only to Load Following customers. The proposed Load Shaping Charge true-up is designed to avoid crediting or charging a customer at the market-based Load Shaping Rate for Tier 1 purchases that were or should have been credited or charged

Tier 1 Rates. The Load Shaping Charge true-up would apply only when a Load Following customer's annual Tier 1 Load (either forecast or actual) was less than its RHWM.

Q. *Do you propose any mitigation during the Rate Period to limit the size of the Load Shaping Charge true-up charge or credit?*

A. Yes. BPA would be able to change a Load Following customer's TOCA each Fiscal Year to more accurately represent the customer's right to take power at Tier 1 Rates. This ability to change a customer's TOCA just prior to the start of the Fiscal Year would help reduce the size of the true-up. The size of the true-up would then be limited to the difference between the more recent forecast of load and the actual load. The new forecast and the associated change to TOCA, if needed, would be revised in August prior to the start of the next Fiscal Year. The forecast would be only 13 months old at the time of the last billing month of the Fiscal Year, thus likely minimizing the magnitude of the differential between forecast load and actual load.

Q. *What indicators would a customer have to the magnitude of the year-end Load Shaping Charge true-up?*

A. The customer would be presented with several indicators throughout the Fiscal Year that would warn about whether the customer would be subject to the true-up, and if so, the approximate size of the true-up and whether it would be payable to the customer or payable to BPA. Each month would provide more information about the customer's actual load compared to the forecast of its load reflected in its TOCA. Therefore, the customer and BPA would be able to have a fairly accurate approximation of the size of the true-up several months prior to the end of the Fiscal Year.

Q. Would BPA post the Load Shaping Charge true-up rate?

A. Yes. BPA would have one Load Shaping Charge true-up rate included in the rate schedule. BPA would determine the Load Shaping Charge true-up rate in each rate case as the difference between 1) the system-weighted average of the Load Shaping Rates and 2) the Composite Customer Rate plus the Non-Slice Customer Rate, expressed in dollars per megawatthour.

Q. What kind of payment schedule do you expect for the Load Shaping Charge true-up?

A. This would be developed in each relevant rate case. One possible method would be something similar to the Slice true-up, with the entire payment to the customer reflected in the next applicable month, or payment to BPA over a three-month period.

Section 2.5: Demand Charge

Q. Are you proposing to have a Demand Charge as part of the Tier 1 rate design?

A. Yes. We are proposing to have a Demand Charge that would be designed to send a price signal for the use of capacity to meet customers' peak loads. The Demand Charge would be applicable to customers purchasing Load Following and Block with Shaping Capacity products. The Billing Determinant would be based on each utility's Customer System Peak (CSP), which is the customer's single highest Heavy Load Hour Tier 1 hourly energy purchase from BPA during each month.

Q. Is this proposed Demand Charge similar to the one currently in place in the PF-07 rate schedule?

A. No. The proposed Demand Charge would be designed to act as a price signal to encourage flatter loads, just as with the Demand Charge in the PF-07 rate schedule, since flatter loads are generally less expensive to serve. However, the design of the proposed

Demand Charge Billing Determinant is significantly different from BPA's current PF-07 Demand Charge.

Q. Would BPA still base the Billing Determinant on a single hour each month?

A. Yes. However, we have proposed to change the method of identifying the particular hour that the Billing Determinant would be based upon. Under the current PF-07 rate, BPA uses a single hour, applied to all customers, based upon the hour of BPA's Generation System Peak (GSP). The rationale for using the hour of GSP is cost causation and the assumption that capacity is most valuable to BPA during the hour when customers place the highest level of demand on BPA. While this assumption may be the same in FY 2012 as it was when the PF-07 rates were designed, a price signal is effective only if BPA's customers are capable of responding. A customer's ability to respond is limited with the GSP approach due to the customer's difficulty to determine the hour of GSP ahead of time and respond timely. As a consequence, we are proposing to change the billing hour from a system-specific hour to a customer-specific billing hour. The customer-specific hour would be the CSP. While the CSP method is not completely correlated to when demand is the highest on BPA, the cost causation benefits of using GSP instead of CSP would not be completely lost by changing to CSP, since the peak use of BPA's individual customers contributes greatly to the size and occurrence of BPA's GSP. Additionally, customers would be better positioned to respond to the price signal, because they would be more able to anticipate and respond to their own system peaks.

Q. Would the aggregate sum of peak loads determined through the CSP method be greater than the aggregate sum of peak loads determined through the GSP method?

A. Yes. This is due to the diversity of loads that BPA serves; at best, the aggregate sum of CSP peak loads can equal GSP peak loads if all customers peaked at the GSP hour. If any customer peaked at another hour, the aggregate sum of the CSP peak loads would be

greater. We have proposed to account for this diversity through the Contract Demand Quantity (CDQ) adjustment that is described later in this section. In addition, the amount of a customer's demand placed on BPA during CSP would be only the starting point for determining the Demand Charge Billing Determinant. While the aggregate sum of peaks determined through the CSP method would be greater than the aggregate sum of peaks determined through the GSP method, the sum of the Billing Determinants would be much smaller with the proposed Demand Charge methodology than the Demand Charge methodology used in the WP-07 rates.

Q. What about the benefits of peak diversity in the future?

A. The benefit of the diversity between CSP and GSP would be included in the CDQ reduction, as described below. It is true that peak load growth would not receive the benefit of increased diversity between CSP and GSP, but it is also true that the benefit of peak diversity between CSP and GSP peaks would not be reduced if peak diversity is reduced in the future.

Q. Is the identification of the peak hour the only feature you proposed to change regarding the Demand Charge?

A. No. After the customer's CSP is identified for each month, BPA would make several adjustments prior to applying the Demand Rate. The adjustments would include a reduction to the CSP for average Tier 1 Heavy Load Hour energy use for the month, a reduction for a customer's CDQ, and a reduction for any peak resource commitments made by the customer.

Q. How would the reduction for average Tier 1 Heavy Load Hour energy be calculated?

A. BPA would measure, either through schedule or meter (whichever would be applicable), the amount of Heavy Load Hour power purchased by a customer in a month from BPA. This amount of power would be reduced by any power that was committed for purchase

at BPA's Tier 2 Rate(s). BPA would then divide this resulting amount of power by the number of Heavy Load Hours in the month to arrive at the average Tier 1 Heavy Load Hour energy in that month.

Q. *Would a customer with a 100 percent Heavy Load Hour load factor pay a Demand Charge?*

A. No. If a customer had a 100 percent Heavy Load Hour load factor, subtracting the average Tier 1 Heavy Load Hour energy purchased from its CSP would result in a zero Billing Determinant. If a customer was served with a diurnally flat block, it would effectively be paying for capacity through the Load Shaping Charge. The Load Shaping Rates would be set on market rate forecasts that assume a flat Heavy Load Hour or Light Load Hour delivery. Therefore, these forecast market rates would include the costs of both capacity and energy. If a Demand Charge was added to these market forecasts, the Load Shaping Rate would no longer be the forecast market price but would be greater than the forecast market price.

Q. *What is a Contract Demand Quantity?*

A. Contract Demand Quantity or CDQ would be a historical "grandfathered" quantity of demand that would be subtracted from a customer's CSP as part of the process of determining the Demand Billing Determinant. Each customer would have 12 CDQs unique to its FY 2005-2007 Heavy Load Hour load factor applied to its FY 2010 normalized load. CDQs are amounts that would be included in a customer's CHWM contract for use during the contract term, expressed in kilowatts. *See* TRM section 5.3.2 for calculation of the CDQ.

Q. *Why do you propose a CDQ?*

A. Including a CDQ reduction as part of the Demand Billing Determinant calculation would enable BPA to increase the Demand Rate to a rate based on the cost of a marginal

capacity resource without creating dramatic rate impacts on customers. The CDQ would also allow BPA to change the peak identification hour from GSP to CSP, also without creating dramatic rate impacts on customers.

Q. Would BPA be grandfathering in a customer's entire historical peak load?

A. No. In order to provide some incentive to lower peak demand on BPA, the CDQ reduction would ensure a reasonable portion of peak load remains on the margin without creating dramatic rate impacts compared to the current rate design. We believe that grandfathering 91 percent of a customer's historical peak load would create a proper balance of improving the price signal and avoiding unnecessarily dramatic rate impacts. This balance would be achieved by keeping most (if not all) customers facing some marginal demand while not experiencing larger than a 5 percent rate increase simply due to a change in rate design.

Q. Would all Load Following and Block with Shaping Capacity customers have 9 percent of their monthly peak on the margin in the first contract year?

A. No. The 91 percent discount would be applied to the average FY 2005-2007 Heavy Load Hour load factor. If a customer's FY 2012 Heavy Load Hour load factor changes from the average FY 2005-2007 Heavy Load Hour load factor, then this customer could have more or less than 9 percent of its demand applied to the Demand Rate in the first contract year. Furthermore, customers with heavy load hour load factors that are greater than 91 percent will have less than 9 percent of their monthly peak on the margin by virtue of the methodology for calculating the Demand Charge Billing Determinant. *See* TRM section 5.3.1 for calculation of the Demand Charge Billing Determinant.

Q. Would all PF customers have 12 CDQs in their CHWM contract?

A. Yes. However, the value in some months could be zero.

Q. Would CDQs change if BPA experiences a change in peaking capability of Tier 1 System Resources?

A. No. The CDQ would be an amount of peak load above average Tier 1 Heavy Load Hour energy that is grandfathered to the customer at no incremental charge. Therefore, reductions in the capability of Tier 1 System Resources that have equal capacity and energy impacts do not need another reduction, because this would be captured in the customer's RHWM calculation. If BPA's Tier 1 System Resources lose only peaking capability, the RHWM would not change, and neither would CDQs. Under such a circumstance, BPA might need to purchase more capacity. BPA would assign this cost of capacity and the expected revenue to the Composite Cost Pool or the Non-Slice Cost Pool.

Q. What is the proposed Super Peak Resource Credit for Load Following customers electing to apply resource amounts in the super peak period?

A. It is a third reduction that would be made to the CSP if a customer made a commitment for the Rate Period to shape a Non-Federal Resource into the super peak period as defined by BPA. The super peak periods will be specified in each relevant rate case as either two three-hour periods or one six-hour period for each day with heavy load hours. The Super Peak Resource Credit is equal to the amount of additional capacity provided by a Non-Federal Resource over the amount of capacity provided by an equivalent amount of energy delivered flat across the monthly heavy load hour period. This credit would be applied to the customer's Demand Charge Billing Determinant regardless of when the customer's actual CSP occurs. While it is possible that the credit could result in a negative Billing Determinant, the Demand Billing Determinant would not be reduced below zero.

Q. Why is the measurement of CSP not proposed to be net of any Super Peak Resource Credit provided by the customer?

A. Customers that commit to provide a peaking amount from a designated resource for the entire six hours of the daily super peak period would receive the benefit of providing capacity regardless of whether or not the super peak hours coincide with their CSP. If the customer's designated resource was behind the meter and the super peak hours occurred during the same hour as the customer's CSP, then the Demand Charge Billing Determinant would reflect the capacity benefit twice. In order to avoid this, the starting point for determining the Demand Billing Determinant (CSP) must not include any reductions in peak load caused by designated resource.

Q. How would BPA calculate the Demand Rate?

A. We propose to change the method used for calculating the Demand Rate from the method currently employed. We are proposing to use the annual fixed costs (capital and fixed O&M) of an identified capacity resource technology as the basis for calculating the Demand Rate. The identified capacity resource technology and its associated costs would be established in each relevant rate case. This method is designed to bring stability to the Demand Rate, because the annual fixed costs of a capacity resource are expected to provide a good approximation of the long-run marginal cost of capacity compared to a more volatile short-run marginal cost of capacity embedded in a market price forecast.

Q. Are you proposing to shape the annual fixed cost of a capacity resource over the 12 months of the year?

A. Yes. BPA would continue its current practice of monthly shaping the Demand Rate by using the Heavy Load Hour market price forecast used for the Load Shaping Rate. This is consistent with industry standards of collecting more of the fixed costs of a capacity

resource during months when demand is highest. BPA would post 12 Demand Rates (one for each month) for use during the Rate Period.

Q. Would it be possible for the shape of the Demand Rate to vary Rate Period to Rate Period?

A. Yes, it would be possible that the market forecast used for shaping the Demand Rate could change the seasonal shape of the Demand Rate from Rate Period to Rate Period. In order to correct for this possible volatility, we propose to leave open the ability to apply a dampening methodology, proposed as necessary in each relevant rate case, to mitigate this potential risk of a Demand Rate shape that changes significantly through Rate Periods.

Section 3: Tier 2 Rate Design

Section 3.1: Overview

Q. Please briefly describe the general construct behind the proposed PF Tier 2 rate design.

A. The proposed TRM provides for a multi-tiered PF rate design applicable to Net Requirement firm power service. We described the proposed Tier 1 rate design in the preceding section of our testimony. The proposed Tier 2 rate design incorporates the costs associated with additional, incremental amounts of power needed to serve the remaining portion of the customers' Net Requirement. These incremental costs of service will be recovered through PF Tier 2 rates. The TRM would establish the basis for the design of future PF Tier 2 rates.

Q. How do you propose to determine the application of a Tier 2 Rate to power sold by BPA under the Regional Dialogue power sales contracts?

A. Each customer would be charged a PF Tier 2 Rate or Rates for above-RHWM load purchased from BPA. *See* Stene *et al.*, TRM-12-E-BPA-05 and TRM section 4.

Q. What costs do you propose to collect through the Tier 2 Rates?

A. The cost components we expect to be allocated to Tier 2 Cost Pools include the costs of market purchases and/or resource acquisitions. The purchase or resource may also have additional costs associated with RSS, transmission, fuel, risk mitigation, and BPA overhead costs.

Q. What Tier 2 Rate Alternatives do you propose?

A. We are proposing three Tier 2 Rate Alternatives: 1) a Tier 2 Load Growth rate; 2) a Tier 2 Short-Term rate; and 3) Tier 2 Vintage rates. Over time, BPA may propose (in power rate cases) to update, modify, eliminate, or add to these alternatives. We propose to establish the Tier 2 Short-Term and Tier 2 Load Growth rate alternatives in the rate case that will develop rates for the FY 2012-2013 Rate Period. BPA also might set a Tier 2 Vintage rate or rates in that rate case if necessary commitments have been made by both BPA and customers. *See* section 3.5 of this testimony for a discussion of Tier 2 Vintage rates.

Q. Briefly describe the general differences between the proposed Tier 2 Rate Alternatives.

A. The primary difference among the Tier 2 Rate Alternatives will be the resource (and associated risk) costs allocated to the Tier 2 Rates. The types of resource costs that would be allocated to the Tier 2 Rates are expected to reflect the required purchase periods of the service. For customers that would commit to purchasing power at the Load Growth rate for the term of the CHWM Contract, for example, we expect BPA would acquire resources reflecting the long-term nature of this purchase commitment. Under the Tier 2 Short-Term rate option, the customers' commitment is expected to be for a shorter-term purchase, generally 5 years. Thus, we expect BPA would acquire resources reflecting the short-term nature of this purchase period.

Both rates would likely be based on a mixture of long-term and short-term resources. However, over time, the Tier 2 Load Growth rate would likely be based more on the cost of long-term acquisitions than on short-term purchases, and the Tier 2 Short-Term rate likely would be based on the cost of short-term purchases rather than long-term acquisitions. Any Tier 2 Vintage rates would be based on specific resource acquisitions and the purchase periods agreed to by customers and BPA.

Q. Are the proposed purchase periods associated with each of the proposed Tier 2 Rate Alternatives an issue to be resolved in this rate proceeding or in a future rate proceeding?

A. No. These are contract matters and are to be resolved in the contract process.

Q. Please describe why you propose that BPA would update, modify, eliminate, or add to these alternatives.

A. Because we propose that the TRM be established for 20 years, we believe it is prudent and reasonable to have the flexibility to propose modifications to the Tier 2 Rate Alternatives. We believe the reasons for making modifications to rate alternatives would be based on input from customers requesting additional rate alternatives. Any proposed modifications would be subject to a 7(i) rate proceeding.

Section 3.2: Tier 2 Billing Determinants

Q. What do you propose to use as Tier 2 Billing Determinants?

A. We propose that the above-RHWM load that customers would commit to purchase from BPA would be the Tier 2 Billing Determinants. This above-RHWM load would be calculated as an annual amount of energy, expressed in average megawatts. This would conform to the proposed Tier 2 Rates, which would be applicable to a flat annual block of energy.

Q. Why do you propose in TRM section 6.2 to use 8760 MWh as the threshold for service at Tier 2 Rates and/or with Non-Federal Resources?

A. A threshold would be important for planning and billing purposes. We propose this specific amount because it is equivalent to one annual average megawatt. Additionally, we consider above-RHWM loads smaller than this threshold to be insignificant compared to the administrative costs of calculating and applying a Tier 2 Rate. In addition, this above-RHWM load would be purchased at the Load Shaping Rates anyway.

Q. Why do you say that these small above-RHWM loads would be purchased at the Load Shaping Rates?

A. The maximum amount we propose that a customer could purchase at Tier 1 Rates is the customer's RHWM. The proposed rate design assumes that all above-RHWM load is purchased at Tier 2 rates. Because we are proposing the threshold before Tier 2 rates are imposed, this small above-RHWM load, if it actually occurs, would be subject to the Load Shaping Rates.

For example, suppose that a customer has a RHWM of 10.000 aMW and a Forecast Net Requirement of 10.015 aMW. This customer's above-RHWM load for the year would be 0.015 aMW. This is below the proposed threshold, so it would not be charged a Tier 2 rate. Rather, this customer's Tier 1 Billing Determinant would be established based on its RHWM of 10.000 aMW. If the customer's load for the year actually was 10.015 aMW, the customer would be subject to paying for the 0.015 aMW at Load Shaping Rates.

Q. Would a customer have different amounts of above-RHWM load in each year of a Rate Period?

A. Yes. Although a customer's RHWM might be the same for each year of the Rate Period, if its Forecast Net Requirement is different in each year of the Rate Period, it would have different amounts of above-RHWM load during the Rate Period.

Q. Would a customer purchase different amounts of power at Tier 2 Rates in each year of a Rate Period?

A. Yes. If the above-RHWM load is different in each year, the Tier 2 Billing Determinant would be different for the two years. Another instance would be if the customer contractually committed to differing amounts of service at a Tier 2 Rate in the second year of the Rate Period by providing notice that it would apply non-Federal resources to load that year.

Q. Please explain how you propose BPA would account for the amount of Tier 2-priced load if it does not match the actual amount of power purchased by a Load Following customer.

A. Within the Rate Period, if a Load Following customer's actual load does not match the Forecast Net Requirement, we propose that the customer would continue to pay for the committed above-RHWM load at Tier 2 rates. The forecast error would be incorporated into the Load Shaping credits or charges. *See* section 2.3 of this testimony.

Q. Please explain how BPA would account for the amount of above-RHWM load that a Block or Slice/Block customer would commit to purchase from BPA if it does not match the actual amount of power BPA delivered to that Block or Slice/Block customer after calculating its annual Net Requirement.

A. If a customer that was purchasing fixed block amounts of power committed to purchase above-RHWM from BPA based on the customer's forecast of its Net Requirement, and then its Net Requirement was determined by BPA to be lower, we propose that BPA would remarket the unused, Tier 2-priced above-RHWM amount and credit the customer

for the value of the power. However, if at the time of its Net Requirement calculation its TRL is determined to be greater than what was used when the customer forecast its Net Requirement, BPA would not increase the amount of block power sold at Tier 2 Rates to meet this purchaser's increase in load. We expect that under the terms of the Block and Slice/Block contracts, a customer would be obligated to apply Non-Federal Resources to meet any additional load above its commitments to service at Tier 1 and 2 Rates. *See* section 3.4 of this testimony.

Q. Please describe the proposed remarketing feature of Tier 2 rates for Load Following customers.

A. Prior to each rate case, in the RHWM Process, if a Load Following customer's above-RHWM load was determined to be less than its committed purchase amount at a Tier 2 Vintage rate (or any other Tier 2 Rate that requires the customer to commit to set amounts for periods longer than a Rate Period), we propose that BPA would remarket the excess amount of Tier 2 Vintage rate-priced power that would not be needed by the customer. The proceeds from such remarketing would be credited to the customer. BPA would calculate the amount of Tier 2-priced power needing this treatment on a Rate Period basis in the RHWM Process for Load Following customers. Then, prior to each Fiscal Year, BPA would calculate the proceeds that would be credited to the customer during each Fiscal Year. *See* TRM section 6.4.1.

Section 3.3: Tier 2 Cost Basis

Q. What are the types of costs you expect would be allocated to the different Tier 2 Cost Pools?

A. We envision that the Tier 2 Cost Pools would be allocated the costs of market purchases and/or resource acquisitions (whether dispatchable or non-dispatchable resources).

Depending on the purchase or resource type, there may be additional costs associated with, among other things, RSS, transmission, fuel, and risk mitigation allocated to the Cost Pools. The cost or benefit of any particular resource's generation shape would be reflected through the application of the Resource Shaping Charge and the Resource Shaping Charge Adjustment. Finally, all Tier 2 Cost Pools would include an Overhead Cost Adder to account for the costs of administering Tier 2. *See* Bliven *et al.*, TRM-12-E-BPA-03, and TRM section 6.3 for a description of the cost basis of Tier 2 Rates.

Q. *On what shape of power would the cost of Tier 2 Rate(s) be based?*

A. Tier 2 rates would be based on the costs of providing power shaped in a flat annual amount; that is, an amount of power that is equal in all hours of the year. This flat annual block creates a benchmark that allows comparison between BPA's Tier 2 Rate Alternatives and any Non-Federal Resources a customer might be considering. *See* Cherry *et al.*, TRM-12-E-BPA-02.

Q. *How do you propose to compensate Tier 1 Cost Pools for the provision of RSS to resources allocated to Tier 2 Cost Pools?*

A. We propose to include in the applicable Tier 2 Cost Pools charges for the provision of RSS for the resources that have costs allocated to Tier 2 Cost Pools. We propose to calculate these charges in the same manner as would be calculated for customers' Non-Federal Resources. *See* section 5 of this testimony and TRM section 8 for additional details on how these charges would be applied.

Q. *Why are you proposing the Resource Shaping Charge Adjustment be applied to the Tier 2 Rate(s)?*

A. We propose to apply the Resource Shaping Charge Adjustment applicable to service at Tier 2 Rates in the same way it is applicable to customers' Non-Federal Resources

supported by RSS. Application of the Resource Shaping Charge Adjustment to both Federal and Non-Federal Resources would compensate Tier 1 purchasers as necessary for the costs of resources supporting above-RHWM loads. We believe that including the Resource Shaping Charge Adjustment in Tier 2 Cost Pools is necessary to clarify how Tier 1 and Tier 2 costs and risks would be separated. Other, more specific risk mitigation tools could be proposed in individual rate cases based on the risks of the types of costs allocated to the specific Cost Pools. *See* Lovell *et al.*, TRM-E-BPA-08 and TRM section 6.3.4.

Q. *Would some Tier 2 Cost Pools reflect a revenue credit from the sale of renewable energy certificates (RECs)?*

A. Yes. We propose to credit to the Tier 2 Short-Term and Load Growth Cost Pools the forecast revenue from REC sales associated with the renewable resources whose costs are allocated to such cost pools. We are also open to including an approach that would provide customers their share of these RECs instead of a revenue credit.

Q. *What is the Overhead Cost Adder?*

A. This is a proposed adder that is intended to compensate Tier 1 Cost Pools for the general and administrative (overhead) costs associated with BPA's provision of power at Tier 2 Rates. BPA would propose the adder in each rate case as a per-kilowatthour charge applied to all power sold at Tier 2 Rates. We expect that the proposed adders would be based on typical fees charged by power brokers to cover their costs.

Q. *Given that the adder would be proposed in relevant rate cases, what if customers or BPA perceive that BPA is collecting too much or too little revenue to cover the overhead costs of providing service at Tier 2 Rates?*

A. The overhead cost adder would be set in rate cases. If the Overhead Cost Adder is believed to be set at a level that is no longer comparable to the observed broker fees, a new level can be proposed in a subsequent 7(i) rate proceeding.

Section 3.4: Remarketing of Tier 2 Rate-Priced Amounts

Q. What is your remarketing proposal for Tier 2 Rate-priced amounts?

A. We are proposing to remarket Tier 2 Rate-priced power when a customer's Net Requirement no longer supports the amount of Tier 2 Rate-priced power it has committed to purchase.

Q. Why is this remarketing of Tier 2 Rate-priced power necessary?

A. As explained in section 3.2 of this testimony, it is possible that a customer could lose load when it has committed to purchasing some or all of its above-RHWM load at the Tier 2 Rate(s) for periods longer than a Rate Period. Remarketing would allow such customers to purchase Tier 1 Rate-priced power to the maximum extent possible while maintaining their take-or-pay commitment to BPA.

Q. Why are you proposing not to give customers the option to remarket Tier 2 Rate-priced amounts themselves?

A. It is our understanding that statutes do not allow BPA to deliver to a customer more requirements power than the customer's Net Requirement, and customers are prohibited from reselling requirements power. Accordingly, we cannot propose to give customers the option of remarketing unneeded the Tier 2 amounts themselves.

Section 3.5: Tier 2 Vintage Rate Alternatives

Q. What is a Tier 2 Vintage rate?

A. A Tier 2 Vintage rate would be a rate developed based on the costs of specific resources allocated to a specific Cost Pool. A customer who wishes to purchase at a specific Tier 2 Vintage rate would have to commit to purchase service for a portion of its above-RHWM load at that rate for the full length of the term of the rate offering.

Q. Please explain how you propose a Tier 2 Vintage rate to work.

A. A customer would be allowed to purchase service for an above-RHWM load from BPA at one or more Tier 2 Vintage rates only if it purchases service to an above-RHWM load from BPA at the PF Tier 2 Short-Term rate. An exception to this requirement is if BPA would offer a Tier 2 Vintage rate by the November 2009 Tier 2 Rate election deadline. Customers that are interested in pursuing a Vintage rate would commit to purchase under a specific Vintage rate for a set amount of power and a set purchase period if BPA is able to acquire a resource within specified parameters. A customer could face liquidated damages to hold the Short-Term rate Cost Pool harmless if it transfers service to the Vintage rate. BPA would determine such costs, if any, in the first section 7(i) rate proceeding that establishes the applicable Tier 2 Vintage rate(s). If BPA was unable to establish the Vintage rate, the customer would continue to purchase at the Short-Term rate. Terms regarding availability for service at the Vintage rate(s) will be determined in the contract process.

Section 4: Shared Rate Plan

Q. What is the proposed Shared Rate Plan (SRP)?

A. The SRP would be available to Load Following customers that commit to purchase all of their above-RHWM load service at the Tier 2 Load Growth rate. The SRP would be a PF rate option that would provide for a single rate in place of the Tier 1 Composite and Non-Slice Customer Rates and the Tier 2 Load Growth rate. The portion of the Tier 1 and

Tier 2 costs that the individual SRP participants would be responsible for would be combined into one rate. The Billing Determinant would be the SRP customer's share of the total Forecast Net Requirement for all SRP customers and is called the Shared Rate Cost Allocator (SRCA). *See* TRM section 7.

Q. Why are you proposing the SRP?

A. We are proposing the SRP to respond to Load Following customers that have expressed a desire for a single rate option. The SRP would spread the costs of load growth experienced by any individual SRP participant over all of the SRP participants. This cost spreading effect would be particularly beneficial for small customers where a 1 or 2 aMW increase in load would represent a large proportion of their load.

Q. What other Tier 1 and Tier 2 Rates are proposed to apply to customers who select the SRP?

A. The Demand Charge and Load Shaping Charge would be applied to SRP customers on an individual basis. However, the Load Shaping Charge true-up would be adapted for customers taking service under the SRP.

Q. Please describe how the Load Shaping Charge true-up applicable to customers that participate in the SRP would work.

A. With one exception, BPA would apply the Load Shaping Charge and true-up on an individual SRP customer's bill exactly the way it would for Load Following customers that do not participate in the SRP.

Q. What is the exception for assessing the Load Shaping Charges and true-up for SRP participants?

A. If a Load Following customer's actual load was less than its Forecast Net Requirement, the customer would receive a market-based Load Shaping credit for the power that was paid for but not used. However, if the customer was an SRP participant, and if the

customer's actual load was less than its Forecast Net Requirement, the Load Shaping credit would be shared among all SRP participants based on their Shared Rate Cost Allocator. *See* TRM section 7 at 75.

Q. Why are you proposing such an adjustment?

A. This adjustment would mitigate a possible incentive among SRP members to over-forecast their loads, and thus the amounts of power they would purchase at Tier 2 Rates, in order to receive the market-based credits under the Load Shaping Charges. If the customer was not a participant in the SRP, the over-forecast would result in that customer paying for more Tier 2 Rate-priced service, and the resulting Load Shaping credits would return the over-forecast to that customer. But if the customer was an SRP participant, the higher Tier 2 charges of the over-forecast would be spread over all participants. Therefore, the resulting Load Shaping credits should also be spread over all participants

Section 5: Resource Support Services

Section 5.1: Overview

Q. What are Resource Support Services?

A. RSS are the services that would be provided to Federal or Non-Federal Resources to deem a resource suitable for serving the above-RHWM load of Load Following customers. RSS are designed to financially convert a variable output resource into a flat annual block of power. *See* TRM section 8. Under certain situations, other PF customers could purchase RSS to physically convert a variable output resource into a flat block of power. RSS comprise five services: Diurnal Flattening Service, Resource Shaping Charge, Resource Shaping Charge Adjustment, Forced Outage Reserves, and Secondary Crediting Service. Each of these is discussed below.

Q. To what resources would RSS be applied?

A. RSS are designed primarily for Tier 2 System Resources and Load Following customer resources that are dedicated to serving their regional retail load. For eligible Slice/Block and Block customer resources, these services would be offered under the Firm Power Products and Services (FPS) rate schedule.

Section 5.2: Diurnal Flattening Service

Q. What would the proposed Diurnal Flattening Service provide?

A. The Diurnal Flattening Service (DFS) is a service that would make a variable or intermittent resource, or that portion of the resource output that is variable or intermittent, financially equivalent to a resource that is flat within the 24 monthly/diurnal periods of the year. This service would allow resources that have output variations (due to natural variations rather than dispatch decisions) within the monthly/diurnal periods of the year to align with the Tier 1 rate design (through the Resource Shaping Charge), which establishes 24 monthly/diurnal Load Shaping rates. DFS would also ensure that a resource provides sufficient capacity to meet BPA's flat annual benchmark for above-RHWM loads.

Q. What do you mean when you say resource output?

A. Our definition of resource output depends on the scheduling requirements of the resources. If BPA's Transmission function or another Balancing Authority Area requires the resource to be scheduled, resource output would be the schedule. If a schedule is not required, resource output would be the metered amount. We make this distinction because the Balancing Authority Area firms the schedule, while the RSS do not firm the schedule but rather provide a firm schedule. If a resource is not required to schedule, then the meter is the only source of information. For similar reasons, when we say scheduled generation we mean metered if no schedule is required.

Q. Why have you proposed DFS?

A. Resources that would be used to serve above-RHWM loads (whether purchased from BPA or Non-Federal Resources) must be benchmarked against the shape of a flat annual block of power. *See* Cherry *et al.,* TRM-12-E-BPA-02. Because the output of resources can vary, the DFS is the first of a two-step process to flatten variable or intermittent resources (or that portion that is variable or intermittent) into a flat annual block of power. The Resource Shaping Charge completes the process by financially converting the 24 monthly/diurnal flat blocks after application of the DFS into a flat annual block.

Q. What is the objective of the proposed pricing methodology for the DFS?

A. Our objective for the proposed DFS pricing methodology is to approximate the market cost of providing a resource flattening service to help ensure that the power sold at Tier 1 Rates is not subsidizing power sold at Tier 2 Rates. Setting the rate for DFS at a market price would also encourage the development of a market for this type of service. DFS price signals should also lead to innovation and investment in new technologies that would allow entities to provide the service at a lower cost. Lastly, the demands placed on the existing Federal system are expected to increase in the future. This may force BPA to acquire additional resources in order to provide the capacity and the flexibility required by the DFS. By approximating the cost of providing this service using the costs of new capacity resources would avoid the cost spikes and subsequent rate shocks that may occur if BPA's existing infrastructure could no longer meet the capacity needs of customers.

Q. Why do you propose to re-evaluate the pricing methodology for the DFS in each relevant rate case?

A. Many things can change during a 20-year contract. There are several factors that could directly affect the method used for pricing the DFS. Alternate methods of storing energy and returning the energy in a different shape, such as batteries, flywheels, and

superconducting storage, are being researched and pursued. Our objective to appropriately price the resource flattening service and encourage a market for the service could not be met if the price placed on providing this service strayed too far from the marginal cost.

Q. *Do you believe that BPA could provide this service through the Tier 1 System Resources at a lower cost than a competitor providing this service?*

A. First, we believe that providing DFS at the embedded cost of Tier 1 System Resources would result in inappropriate cost shifts from Tier 1 Cost Pools to Tier 2 Cost Pools. Therefore, the DFS at best could be priced at the opportunity cost of the use of Tier 1 System Resources. It is uncertain at this point what the cost of providing this service would be if only the opportunity cost of the Tier 1 System Resources was used to price this service. It is also uncertain what new technologies or viable resource support markets will be developed in the next 20 years. While it is true that the existing Federal system has more flexibility than most other resource systems, this flexibility currently does not go unused. Using the Federal system's flexibility to provide the DFS would mean removing flexibility that is currently being used for such things as factoring (moving energy from less expensive hours to more expensive hours), a service that provides a significant benefit.

Q. *What would be the components of DFS?*

A. DFS would consist of a capacity component and an energy component. A resource to which DFS is applied would be compared to a flat annual block of power. If the resource would not deliver at least as much capacity as a flat block, the DFS would provide capacity in the amount required to meet a flat block specification; i.e., equal hourly amounts through the relevant time period. If the resource output was a variable amount of power from hour to hour, the DFS would provide a storage service for the energy

when the resource performs above a flat block and returns the energy when the resource performs below a flat block.

Q. How much variation in scheduled output would a resource for which DFS is applied allow?

A. The DFS could accommodate output variations up to 100 percent of the nameplate capacity of the resource. A customer could declare an amount of firm output for a resource and then purchase DFS to flatten energy deliveries above the declared firm output.

Q. How would the DFS account for firm capacity that a resource could provide?

A. If a resource with DFS applied had some firm capacity, this amount of firm capacity would be the contract-defined minimum schedule for that resource. Failure to meet the contract minimum schedule would be dealt with through Forced Outage Reserves (FOR) purchased from BPA or through alternative arrangements made by the customer. Forced Outage Reserves (as described below) is a separate service that could be purchased if a customer expected BPA to provide backup for firm generation. Failure to meet the contract minimum schedule either through FOR or an alternative arrangement could result in an Unauthorized Increase Charge.

Q. Why do you propose that BPA may provide a credit if a resource that is applying DFS was determined to provide more capacity than a flat annual block?

A. Due to the proposed requirement that service to above-RHWM amounts would be benchmarked against flat annual blocks of power, a resource that generated at a higher level in heavy load hours than in light load hours could be construed as providing more capacity than the flat annual block. Generally, the Resource Shaping Charge (which is discussed further below in section 5.3) would credit this resource with the market value of selling the excess heavy load hour energy and purchasing the less valuable light load

hour energy. Because the capacity embedded in monthly/diurnal blocks would be addressed through the Resource Shaping Charge, the number of resources that would provide even more capacity would be very limited. This limited set of resources would be further reduced because resources with this kind of capacity flexibility would likely not need to purchase the DFS. However, if a particular resource was determined to provide more capacity than a flat annual block, BPA would need to consider when this additional capacity was being provided before a capacity credit for the resource would be provided. BPA would not want to find itself in a situation where it was forced to purchase or credit for capacity when it had little to no value to BPA.

Q. *Would a solar resource provide more capacity than a flat annual block?*

A. A solar resource has the potential to provide more capacity than a flat annual block, but the value of this additional capacity would be reflected through the Resource Shaping Charge (described below) and not through an explicit DFS capacity credit. The Resource Shaping Charge would provide a market-based credit for generation levels that were greater than the flat annual block. A solar resource typically produces the majority of its power during heavy load hours. To the extent the solar resource generates power in a given period in excess of a flat annual block, the Resource Shaping Charge would credit the customer for this additional amount of power at heavy load hour prices. Likewise, the solar resource would incur a charge when the generation was below a flat annual block. The charges would typically be incurred during the lower-priced light load hour periods.

Q. *When calculating the amount of capacity a resource provides, would BPA take into account relevant regional studies that could provide insight on this particular issue?*

A. We propose that BPA would consider relevant regional studies when determining the capacity provided by a resource or resource group that has the DFS applied.

Q. Would a customer have to pay for capacity once for the resource and a second time for the load?

A. No. The Tier 1 Demand Billing Determinant is designed to be net of any capacity provided by either power purchased at BPA's Tier 2 rate or above-RHWM load served by Non-Federal Resources. Once the DFS is applied to a resource (in conjunction with the Resource Shaping Charge as described below), it would then be considered a flat annual block for purposes of determining the Tier 1 Demand Billing Determinant.

Q. Once the DFS addressed the necessary capacity, would there an additional component to the pricing of the DFS?

A. Yes. There would also be an energy charge. The capacity component would ensure that there would be capacity available when the resource produces less than its expected generation. The energy component would reflect the cost of storing energy in high generation hours and releasing energy in low generation hours.

Q. Would there be any other components besides a resource's historical hourly output that BPA would consider when pricing this service for a particular resource or resource group?

A. There may be an adjustment to the overall cost if BPA determined that a particular resource's generation schedule might be curtailed due to transmission constraints. There might also be a charge for scheduling Non-Federal Resources used to serve above-RHWM loads.

Q. What would happen if DFS was applied to a resource that was economically displaced?

A. The DFS would not inhibit a resource operator from economically displacing a resource. However, if a resource receiving DFS was displaced, the customer would need to provide an alternate resource or power purchase schedule for each hour the resource was

displaced that would be equal to the planned output of the resource as determined when the DFS was priced.

Q. Could the DFS be purchased for only a portion of a resource?

A. Yes, but only if a utility purchased a fixed percentage share of a specific resource and that percentage of generation was dedicated to serving that customer's firm consumer load. The DFS is designed to smooth natural variations in hour-to-hour output of a specific resource that is dedicated to load and not for variations caused by marketing decisions. If the DFS was to be applied to a portion of a resource that consisted of a non-percentage agreement, marketing decisions of another resource owner could create an arbitrage opportunity between BPA's forecast market price used for the Resource Shaping Charge Adjustment (described below) and the actual market prices at the time.

Q. Could the DFS be applied to a group of resources?

A. Yes. We propose that BPA would allow grouping the resources in each of BPA's Tier 2 Cost Pools when applying and pricing the DFS. However, BPA would not group resources from multiple Tier 2 Cost Pools, because this would result in the shifting of costs among the various Tier 2 Cost Pools. This shifting of cost between Tier 2 Cost Pools is inconsistent with the principle of keeping separate the costs among the Tier 2 Cost Pools. Multiple resources owned by a single customer would also be allowed to be grouped for purposes of applying and pricing this product. BPA also may consider some cross-customer grouping of resources, at the request of all customers wanting to participate in the grouping, for purposes of applying and pricing the DFS.

Q. What benefits would come with grouping resources for purposes of applying and pricing the DFS?

A. Grouping resources would create the opportunity for customers to benefit from the diversity of the various resources. The result of grouping would create the opportunity

for combined output to more closely match the 24 monthly/diurnal flat blocks established by BPA. Such sharing of diversity could reduce the cost of the DFS compared to purchasing the service on an individual resource basis.

Q. Has BPA ever offered a service like this in the past?

A. No. BPA has offered storage and shaping services in the past, but none of these services flattened a resource to the extent that the DFS would; nor did the storage and shaping service bestow capacity benefits from the resource to the load. BPA's past storage and shaping services included schedule certainty by delaying energy delivery for a week or providing for energy exchanges that returned power in the light load hours. DFS would be BPA's first service that flattened a resource for monthly/diurnal periods and guaranteed the capacity included with a flat block.

Q. Would this service overlap with the integration service provided by the BPA Transmission function or other Balancing Authority Areas?

A. No. The DFS would not be an integration service. The DFS simply would allow dedicated resources that have natural variations in output to align with a rate design that would not distinguish between the value of power within the 24 monthly/diurnal periods of the year. It is important to note that the DFS pricing would be based on scheduled quantities, not actual resource hourly output (unless a schedule was not required by the Balancing Authority Area); the schedule would be guaranteed by the transmission provider. This is particularly important because BPA would serve the net load of its customers, and different resource shapes would change the load that BPA serves. Within-hour variations would still need to be managed by the transmission provider.

Q. Would the DFS replace the need for planned outage reserves?

A. Yes. Planned outages would be defined as outages known to BPA prior to when the DFS was priced. The total annual energy output, including zero generation during planned

outages, would still be shaped to the flat annual block of energy. The combination of the DFS and the Resource Shaping Charge (described below) would account for the lack of energy output when the resource is offline for planned maintenance.

Q. How would the capacity and energy components of the DFS be charged to the resource?

A. We propose that the capacity component of the DFS be billed flat across the Rate Period based on the costs determined when the service would be priced. The energy component of the resource would be a dollars per megawatthour rate that would be charged on actual scheduled generation.

Q. Why would the capacity component be charged on the forecast capacity need of the resource, while the energy component would be charged on actual scheduled generation (or metered if a schedule was not required by the Balancing Authority Area)?

A. The capacity component of the resource would be planned for and reserved by BPA prior to the Rate Period regardless of the actual energy scheduled by the resource. In order to ensure cost recovery and that adequate capacity is available, BPA must be able to collect this reservation fee regardless of actual scheduled generation. The logic behind charging the energy component on actual scheduled generation stems from the purpose of the charge, which is to mimic the cost of storage during over-generation hours and release during under-generation hours. If, for example, a resource produced no energy during an entire monthly/diurnal period, (and the DFS service was applied to the entire resource), there would be no storage and release costs incurred by BPA. The lack of energy would be paid for through the Resource Shaping Charge Adjustment as described below. Conversely, if a resource scheduled more energy than planned, the amount of storage and release BPA would need to provide would increase, thereby justifying the need to charge the actual scheduled energy component as a per-unit charge. The credit for the additional

energy would be addressed through the Resource Shaping Charge Adjustment, as described below.

Q. When a resource is economically displaced, how would the DFS be billed?

A. The capacity portion of the DFS would remain fixed, because the capacity was planned for and reserved by BPA. If a resource that is applying the DFS was economically displaced, the customer must provide an alternate schedule for each hour the resource was displaced that is equal to the planned output of the resource as determined when the DFS was purchased. Therefore, the energy component of the DFS would not be charged to the resource because the alternate schedule is at the flat amount for the duration of the outage and would not need any storage and release from BPA.

Section 5.3: Resource Shaping Charge

Q. What is the proposed Resource Shaping Charge?

A. The proposed Resource Shaping Charge is a customer-specific annual charge or credit that would adjust for the difference in value between a planned resource energy shape that is flat within each of the 24 monthly/diurnal periods of the year and an equivalently sized flat annual block. For customers purchasing DFS for their resources, the Resource Shaping Charge would be applied to the 24 flat blocks. A customer applying a Non-Federal Resource to its above-RHWM load that was flat within the 24 individual monthly/diurnal periods of the year but in amounts that are not flat within the month or across the months would avoid the DFS charge but would be subject to the Resource Shaping Charge. A customer applying a Non-Federal Resource to its above-RHWM load that is annually flat (i.e., equal in all hours of the year) would avoid both the DFS charge and the Resource Shaping Charge.

Q. How would the Resource Shaping Charge be different from the Load Shaping Charge?

A. The Resource Shaping Charge and Load Shaping Charge would be effectively similar, with one applied to a resource and the other to load. The Load Shaping Charge is the charge for the service of shaping the expected firm critical output of the Tier 1 System Resources to a customer's actual Tier 1 Load. The Resource Shaping Charge is the charge for shaping a monthly/diurnal flat resource into a flat annual block.

Q. How would the Resource Shaping Charge apply?

A The Billing Determinant for the Resource Shaping Charge would be the difference between a flat annual block and the resource's expected monthly/diurnal flat firm output (flat annual block minus the resource's firm or expected output). This Billing Determinant might be a positive or a negative number. A resource forecast providing less energy than the flat annual block during any of the 24 monthly/diurnal periods of the year would result in a positive Billing Determinant for that period and thus a charge for purposes of determining the Resource Shaping Charge. Conversely, a resource forecast providing more energy than the flat block during any of the 24 monthly/diurnal periods of the year would result in a negative Billing Determinant for that period and thus a credit for purposes of determining the Resource Shaping Charge. The charges and credits would be summed and the total annual costs would be allocated as a flat monthly charge or credit on the customer's bill.

Q. Why do you propose a separate Resource Shaping Charge when the Load Shaping Charge would consist of the same rates and ultimately produce the same bill?

A. We believe the cost or benefit of different resource shapes should be transparent. If we folded the seasonal costs of the resource into the rates applied to loads, then this transparency would be lost. Also, BPA would price the power sold at a Tier 2 Rate as if it was delivered in flat annual blocks. BPA would apply the same Resource Shaping Charge to resources whose costs are allocated to Tier 2 Cost Pools, thus making the

seasonal benefits or costs of a resource transparent in BPA's Tier 2 Rates. Applying this transparency to Non-Federal Resources also would provide consistency and comparability.

Q. How would the Resource Shaping Charge be billed to the customer for a resource?

A. BPA would calculate the total Rate Period Resource Shaping Charge for the resource and bill it flat monthly by dividing the total charge (or credit) by the months in the rate period.

Section 5.4: Resource Shaping Charge Adjustment

Q. What is the proposed Resource Shaping Charge Adjustment?

A. For each monthly/diurnal period, the Resource Shaping Charge Adjustment would compare the expected energy (as forecast in the rate case) to the actual scheduled generation of the resource. If there was more scheduled generation from the resource than its forecast energy, a credit would be due to account for the over-generation. Conversely, if there was less scheduled generation from the resource than its forecast energy, then a charge would be due to account for the under-generation. The charges and credits would be based on the forecast market value of the energy.

Q. Would all resources be subject to the Resource Shaping Charge Adjustment?

A. No. Only resources purchasing the DFS from BPA would be subject to the Resource Shaping Charge Adjustment. This is because only resources purchasing the DFS would be allowed to change from planned output to actual resource generation. All other resources must meet their contract-defined schedule or be subject to a penalty rate.

Q. What is the purpose of the Resource Shaping Charge Adjustment?

A. The purpose of the Resource Shaping Charge Adjustment is to keep the DFS energy-neutral within each monthly/diurnal period of the year. For the DFS to remain an energy-

neutral service, an end-of-month adjustment would have to be made when the resource schedules are more or less than the amount of energy that was expected when the service was priced. Customers purchasing the DFS would have paid for the ability to change scheduled generation for natural variations in output (e.g., ambient temperature, quality of fuel, wind speed, cloud cover). This ability to change scheduled generation would cause a resource to provide more or less energy during a month (heavy load hours and light load hours differentiated) than what BPA would be expecting when the service was priced.

Q. Would BPA apply actual scheduled generation or planned generation against a customer's load for purposes of billing the Load Shaping and Demand charges?

A. BPA would apply planned generation against a customer's load for purposes of billing. BPA would do this so that all customers would see a flat annual block of power being delivered to serve load above their RHWM. Credits or charges that occurred when the actual scheduled output of a resource was different from the Rate Period forecast scheduled output would be handled through the Resource Shaping Charge Adjustment. Double counting would occur if BPA applied the actual generation against load to determine both the amount purchased from BPA and the Resource Shaping Charge Adjustment.

Section 5.5: Forced Outage Reserves

Q. What would the proposed Forced Outage Reserves (FOR) provide for a resource?

A. The RSS FOR would be a service that backs up the firm portion of a resource. FOR would supplement Operating Reserves Services provided under the Open Access Transmission Tariff (OATT). FOR would apply when Operating Reserves expire. Contracts for FOR would establish notification requirements and limits on energy

amounts that would be provided under this product. The definition of Forced Outages would be consistent with the definition of the Western Electricity Coordinating Council.

Q. Would Forced Outage Reserves be required for resources?

A. No. However, if a resource did not schedule its declared firm generation, a penalty rate would apply. FOR would help a customer avoid incurring penalty rates in the event of one of the circumstances under which the customer may call on the service.

Q. Would BPA apply FOR to its Tier 2 System Resources whose costs are allocated to Tier 2 Cost Pools?

A. Yes. In order to make BPA's Tier 2 Rates comparable to costs of Non-Federal Resources, the cost of applying FOR would be included in the determination of specific Tier 2 Rates. In addition, without this service there would be a practical issue of BPA charging itself a penalty rate and allocating those costs to the Tier 2 Cost Pool where they belong.

Section 5.6: Secondary Crediting Service

Q. What is the proposed Secondary Crediting Service?

A. This service would allow Load Following customers that dedicate the entire output of an Existing Resource (metered or scheduled hydro) to receive a credit for the amount of energy produced by the resource in excess of its firm critical output (whether dispatchable or non-dispatchable) as long as the resource has both firm critical and secondary energy generation. This service is currently intended to apply to hydro resources but could apply to other Existing Resources if it could be established that the resource has a secondary energy component.

Q. What about new resources that have a secondary component?

A. A Load Following customer with a new dedicated specified resource that has a secondary energy component could purchase DFS from BPA. The credit for secondary energy would be reflected through the Resource Shaping Charge Adjustment.

Q. Why would BPA treat new resources with a secondary component differently than Existing Resources with a secondary component?

A. Load Following customers applying new resources with a variable component to load would be required to purchase the DFS, unless the customer committed to an allowable hourly schedule in its contract. The combination of the DFS and the Resource Shaping Charge Adjustment is designed to return to the resource owner a credit for scheduled generation in excess of the resource's planned generation. This mechanism for returning value would capture the benefit of secondary energy. The DFS service is designed so that new resources could comport with different shape requirements that some Existing Resources are not subject to. In addition, the DFS service would not include an ability to apply the resource to the Customer System Peak, similar to what was required under the Subscription contract product Complex Partial with Dedicated Resource. Consequently, we propose to offer Secondary Crediting Service for Existing Resources, so that customers could have a service under the Regional Dialogue Contracts similar to what they have under the Subscription Contracts.

Q. Why would BPA credit secondary energy at a discount from the index market price?

A. The discount from the index market price is intended to capture a combination of transaction costs incurred by BPA for providing this service. These include but are not limited to overhead, odd lot sizes, transmission losses, scheduling, and transmission costs.

Q. Does this mean that the secondary credit for Existing Resources would be smaller than the credit provided to new resources?

A. No, the secondary credit for Existing Resources would be different than, but not necessarily smaller than, the credit provided to new resources. It is uncertain whether the secondary credit would be smaller or larger. The credit provided to Existing Resources would be calculated using a discounted actual market price, while new resources would receive a credit equal to BPA's forecast market price minus the rate of the energy component of the DFS. The DFS would need to be purchased for a new resource to be eligible for this credit through the Resource Shaping Charge Adjustment, a service not needed for Existing Resources. Existing Resources would have a choice to purchase the DFS and have the Resource Shaping Charge applied and receive the same treatment, but with that choice the resource would lose added flexibilities that come with its status as an Existing Resource.

Q. Does this conclude your testimony?

A. Yes.

Attachment A

ANALYSIS OF SLICE REVENUE CHANGE IF TOCA IS LESS THAN 100 PERCENT AT $60 MARKET PRICE							
Slice percent	Critical System Generation aMW	Tier 1 Net Requirement Total aMW	TOCA total	Effective %	Monthly Rev Reqt	Monthly rate/percent	Total Slice Revenues
22.6278	7400	7400	100	22.6278%	$ 187,705,407.11	$ 1,877,054.07	$ 42,473,604.11
22.6278	7400	7250	97.9730	23.0960%	$ 187,705,407.11	$ 1,915,889.67	$ 43,352,368.33
22.6278	7400	7250	97.9730	23.0960%	$ 181,135,407.11	$ 1,848,830.36	$ 41,834,963.67
					Adjustment to Monthly Rev Reqt		
					$ 6,570,000.00		
					Unused HWM aMW	Market price	Value @market
					150	$ 60.00	$ 78,840,000.00

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TESTIMONY of

GREG C. GUSTAFSON, RAYMOND D. BLIVEN, JON A. HIRSCH, and

GARRY R. THOMPSON

Witnesses for Bonneville Power Administration

SUBJECT: OTHER RATE DESIGN

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TESTIMONY of

GREG C. GUSTAFSON, RAYMOND D. BLIVEN, JON A. HIRSCH, and

GARRY R. THOMPSON

Witnesses for Bonneville Power Administration

SUBJECT: OTHER RATE DESIGN

Section 1: Introduction and Purpose of Testimony

Q. Please state your names and qualifications.

A. My name is Greg Gustafson, and my qualifications are contained in TRM-12-Q-BPA-07.

A. My name is Raymond Bliven, and my qualifications are contained in TRM-12-Q-BPA-01.

A. My name is Jon Hirsch, and my qualifications are contained in TRM-12-Q-BPA-08.

A. My name is Garry Thompson, and my qualifications are contained in TRM-12-Q-BPA-17.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to discuss the Low Density Discount and Irrigation Rate Mitigation portion of the Tiered Rate Methodology (TRM), TRM-12-E-BPA-01, sections 10.1 and 10.2. This testimony makes use of defined terms in the TRM; *see* TRM pages v-xvii.

Q. How is your testimony organized?

A. Section 1 is this introduction. Section 2 describes the Low Density Discount. Section 3 describes Irrigation Rate Mitigation.

Section 2: Low Density Discount

Q. What is the Low Density Discount?

A. In order to avoid adverse impacts on retail rates of BPA's customers with low system densities, the Northwest Power Act directs BPA to apply a discount, to the extent appropriate, to BPA's rates for such customers. This discount is known as the Low Density Discount (LDD). The LDD currently applies to the Priority Firm Power (PF) Preference, PF Exchange, and New Resources rates.

Q. Are you proposing any changes to the LDD under tiered rates?

A. Yes. We are proposing to change the definition of "consumers" in the consumers per mile (C/M) ratio; the formula for calculating the applicable LDD percentage to accommodate tiered rates; and the method by which BPA determines LDD benefits for qualifying Slice customers.

Section 2.1: Change in the Definition of "Consumers" in the C/M Ratio

Q. What is the current definition of consumers?

A. As currently defined in BPA's General Rate Schedule Provisions (GRSPs), for the LDD C/M calculation "consumers" means the maximum number of consumers within the distribution system in any one month during the calendar year. This includes every billed consumer, regardless of usage. Separately billed services for water heating and security lights are not counted as an additional billed consumer.

Q. What is the definition of consumers you are proposing?

A. As shown in TRM section 10.1.1, we propose the following definition of consumers:

> Consumers means the number of consumers, by classification, having a current service connection in December of each year. Residential consumers (seasonal and non-seasonal) should be counted on the basis of the number of residences served. If one meter serves two residences, then two consumers should be counted. If a water heater is metered separately

from other appliances on the same premises, the water heater load will not count as a separate consumer.

Security or safety lights, billed to a residential customer, will not be counted as an additional consumer.

Seasonal consumers expected to resume service during the next seasonal period will be counted during off-season periods as well.

A residence and commercial establishment on the same premises, receiving service through the same meter and being billed under the same rate schedule, would be classified as one consumer based on the rate schedule. If the same rate schedule applies to both the residential and the commercial class, the consumer should be classified according to the principle use.

Consumers for Public Street and Highway Lighting should be counted by the number of billings, regardless of the number of lights per billing.

This is the same as the definition of consumers used by the United States Department of Agriculture's Rural Utilities Service. U.S. Department of Agriculture, Rural Utilities Service, Bulletin 1717B-2, p. 47-48.

Q. Why are you proposing this change to the definition of consumers?

A. Because the density of a customer's system is the basis for the LDD, a uniform and sound basis for calculating density is essential. This change would ensure that the LDD is provided only to BPA's customers with low system densities, promote equity among such customers, and support efficient and effective administration of the LDD.

The current definition of "consumer" has been interpreted differently by different customers. The current LDD reporting criteria and the resulting annual customer reporting of what constitutes a "consumer" have caused confusion and inconsistency in the determination of LDD benefits. Customers eligible for LDD benefits have been reporting numbers of consumers differently based on, for example, the number of meters, the number of consumers, or the number of members (for cooperatives). These variations in data reporting can affect LDD eligibility and the discount level.

Because BPA is directed by statute to administer the LDD, we believe the proposed change in the definition of consumers more accurately reflects a utility's density; provides a uniform basis for calculating the C/M ratio; ensures greater equity among customers; and provides eligible customers a clear, understandable, and verifiable reporting standard. Additionally, the proposed change would create administrative efficiencies in BPA's implementation of the LDD.

Section 2.2: Adapting the LDD to Tiered Rates

Q. Would the LDD need to be modified to accommodate tiered rates?

A. Yes. We believe that the level of a customer's LDD benefits should not be affected by the customer's choice between purchasing BPA power sold at a Tier 2 Rate(s) or applying power from Non-Federal Resources. To accomplish this goal and still provide an equivalent amount of LDD benefit as would have been provided in the absence of tiered rates, we are proposing certain modifications to the LDD.

Q. Please describe your proposed modifications.

A. Instead of continuing the current practice of basing the discount on PF purchases, we propose to base the discount on a customer's Total Retail Load, minus any Existing Resources listed in its Subscription Contract applied to load in FY 2010. The discount amounts listed in the LDD percentage table in the GRSPs would serve as the basis for an annual adjustment, if warranted, to reflect an increase or decrease in a customer's Total Retail Load.

For example, a customer may receive an LDD of 5 percent and have a Rate Period High Water Mark (RHWM) of 10 aMW. If that customer's Total Retail Load increases to 11 aMW (a 10 percent increase over its RHWM), then the customer would have its LDD percentage adjusted upward to 5.5 percent (a corresponding 10 percent increase). For affected customers, the 7 percent cap would be adjusted upward by the same amount

as the LDD percentage. All other remaining existing criteria to qualify for the LDD would be retained.

Q. How would these modifications be applied?

A. The modifications resulting in the updated LDD percentage would be applied to all firm power purchased at Tier 1 Rates (Customer Charge, Load Shaping Charge, and Demand Charge) of the customer receiving the LDD. These costs will be allocated to the Composite Cost Pool and only to the PF rate pool.

Q. Would the LDD apply to the amount of customer load served with power purchased at Tier 2 Rates?

A. No. In order to allow a level playing field in choices between BPA service and self-supply, the LDD would not be applied to the amount of customer load served with power purchased at Tier 2 Rates.

Section 2.3: Calculation of the LDD for Slice Customers

Q. How are you proposing to calculate LDD benefits for qualifying Slice customers?

A. We propose to combine the LDD benefits for a Slice/Block customer into a single credit. BPA would use the customer's previous Fiscal Year's metered PF-eligible load, minus any Existing Resources listed in the customer's Subscription Contract applied to load in FY 2010, and minus the customer's above-RHWM load, to estimate PF Tier 1 Billing Determinants as though the customer was a Load Following customer. Then BPA would multiply these estimated PF Billing Determinants by the appropriate Tier 1 Rates. The sum of these products then would be multiplied by the Total Retail Load-adjusted LDD percentage to derive the annual LDD benefit. This benefit would be divided into 12 equal monthly amounts.

Q. Why are you proposing this change?

A. The previous method for calculating the LDD to apply to the Slice portion of a customer's PF purchase was complicated and time-consuming. At the suggestion of some customers and in the interest of administrative efficiency, we are proposing this change.

Section 3: Irrigation Rate Mitigation

Q. What is Irrigation Rate Mitigation?

A. Irrigation Rate Mitigation (IRM) is a proposed discount to BPA's wholesale power rate for eligible irrigation load served by a customer. The discount would be a fixed percentage discount to the Tier 1 Rate. The fixed percentage would be the effective reduction in the melded, weighted average of the spring and summer energy rates due to the Irrigation Rate Mitigation Product (IRMP) in the average FY 2007-2009 PF energy rates. This discount would be seasonally available to eligible loads during May, June, July, August and September.

Q. Why would BPA offer Irrigation Rate Mitigation?

A. Reclamation of lands through irrigation for the agricultural industry is one of the primary historical reasons for constructing Federal dams in the Pacific Northwest, along with flood control, navigation, recreation, and power production. Historically BPA has provided rate discounts to customers that serve agricultural loads. This has encouraged the cultivation and irrigation of land in the Pacific Northwest that was otherwise barren and nonproductive. The discounts have provided direct benefits to farmers, and because agriculture is the dominant—if not the sole—economic driver in many rural Northwest communities, indirect benefits to supporting industries such as irrigation equipment sales, fertilizer companies, food processors, and trucking. Irrigation and associated energy use are most intensive over a 5-6 month time frame in the Pacific Northwest. Making this discount available would support BPA's statutory objective to encourage the widest

possible diversified use of electric energy while avoiding adverse rate impacts on any one consumer class.

Q. How would BPA apply the IRM?

A. We expect CHWM Contracts to include a provision acknowledging the IRM as a rate adjustment that would be determined in rate proceedings and subject to BPA's GRSPs. The amounts of a customer's eligible irrigation loads would be specified in CHWM Contracts. BPA would determine the eligible customer-served irrigation load for the IRM twice: 1) at contract execution for those customers who have received BPA's currently effective IRMP in calendar year 2008 or the Summer Seasonal Product; and 2) 90 days after the issuance of the TRM Final Record of Decision. If a New Public requests the IRM for its eligible irrigation load, BPA would make a load determination and any needed contract amendments to reflect eligible kilowatthour amounts.

Q. How would BPA determine the eligibility of a customer's irrigation load for the IRM?

A. To qualify for the IRM discount, a customer serving irrigation load would need to meet one of the following criteria:

a) participated in BPA's FY 1997-2001 Summer Seasonal Product;

b) participated in BPA's FY 2007-2011 Irrigation Rate Mitigation Product; or

c) had irrigation rate schedule sales, May through September in FY 2002-2004, divided by the customer's Total Retail Load for FY 2002-2004, of at least 5 percent; or if less than 5 percent, the average megawatthour use for May through September in FY 2002-2004 (15 months in 3 years) is 7,500 MWh or more. In addition, at least 75 percent of a customer's Total Retail Load must be placed on BPA as of October 1, 2011.

Q. Are there any other aspects of IRM that are significant for the TRM?

A. Yes. For a Slice/Block customer, the rate adjustment would be applied to the lesser of the customer's monthly block purchased at Tier 1 Rates or the qualifying irrigation kilowatthours specified in its contract.

Additionally, for all customers receiving the IRM, there would be a true-up process at the end of the irrigation season to ensure the full amount of irrigation load was equal to or greater than the load eligible for mitigation. If a customer's May to September measured irrigation load is less than the amount of load eligible for mitigation, a true-up would be owed to BPA at end of the irrigation season. The details and requirements of the true-up would be developed in the relevant rate cases and included in the GRSPs for each applicable Rate Period.

Finally, BPA would require customers participating in the IRM to implement cost-effective conservation measures on eligible irrigation systems in its service territories as described in the GRSPs.

Q. Does this conclude your testimony?

A. Yes.

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BYRNE E. LOVELL, JANICE A. JOHNSON, and CARIE E. LEE

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TESTIMONY of

BYRNE LOVELL, JANICE A. JOHNSON, and CARIE E. LEE

Witnesses for Bonneville Power Administration

SUBJECT: RISK MITIGATION

Section 1: Introduction

Q. Please state your names and qualifications.

A. My name is Byrne Lovell, and my qualifications are contained in TRM-12-Q-BPA-12.

A. My name is Janice A. Johnson, and my qualifications are contained in TRM-12-Q-BPA-10.

A. My name is Carie E. Lee, and my qualifications are contained in TRM-12-Q-BPA-11.

Q. What is the purpose of your testimony?

A. Our testimony describes the risk mitigation approach for Tier 1, Tier 2, and the Slice product proposed in the Tiered Rate Methodology (TRM), TRM-12-E-BPA-01. This testimony makes use of defined terms in the TRM; *see* TRM pages v-xvii.

Q. How is your testimony organized?

A. Our testimony has five sections. First is this introduction. Section 2 contains an overview of how risk issues are treated in the TRM and what would be left for later rate cases. Section 3 covers Tier 2 risk mitigation. Section 4 deals with Tier 1 risk mitigation. Section 5 describes risk mitigation in the Slice product.

Section 2: Overview of Risk Mitigation in the TRM

Q. Please discuss your proposed approach to risk mitigation.

A. In the TRM, we propose broad principles to guide the risk analysis and mitigation in future rate cases that would be performed during the term of the CHWM Contracts.

Conducting the actual risk analysis and mitigation would be part of each rate case and would be conducted consistent with the TRM.

Q. Why are you not proposing a specific approach for risk analysis and mitigation?

A. The TRM would be in place for many years. During that time it is likely that the major risks in the Power function will change, and therefore the set of mitigation tools available for dealing with those risks would need to change also. BPA would need to be able to match the types of risk analysis and the application of risk treatments to the circumstances of each rate case. This is the only way to ensure that BPA can deal with risk to meet its statutory and customer service objectives over time. Therefore, BPA needs to maintain the flexibility in each rate case to propose risk mitigation measures that are appropriate for the risks BPA faces at that time.

Q. Would BPA treat Tier 1 and Tier 2 costs and risks separately in its risk approach?

A. Yes. BPA would do everything it can to keep the costs and risks of Tier 2 from affecting the costs and risks of Tier 1, and vice versa. BPA would propose risk mitigation measures within each tier that would mitigate the risks associated with that tier up to BPA's financial risk standards.

Q. How do you define "BPA's financial risk standards"?

A. BPA's financial risk standard(s) is set in BPA's 10-Year Financial Plan or its successor(s) and then is reviewed in a section 7(i) proceeding if necessary. Currently, the 10-Year Financial Plan calls for BPA to set rates to achieve a 95 percent probability of making all required Treasury payments in each two-year Rate Period (i.e., the 95 percent Treasury Payment Probability (TPP) standard). This standard is to be applied separately to the Power function and the Transmission function. BPA is confirming that standard in a FY 2008 update to the Financial Plan.

Q. Might there be other financial risk standards in the future?

A. Yes. For example, the Financial Plan update will also describe a potential companion to the TPP standard. The TPP standard currently looks only at financial results at the ends of Fiscal Years and therefore does not measure how well financial risk within a Fiscal Year has been mitigated. One idea BPA is investigating has been termed Vendor Payment Probability (VPP), the probability that all of BPA's financial obligations during each month (whether these obligations are technically to "vendors" or not) can be paid. If BPA were to adopt this or another financial risk standard, then the risk mitigations in Tier 1 and Tier 2 Rates and contracts would have to satisfy the new financial risk standard(s) as well as TPP.

Section 3: Risk Mitigation in Tier 2

Q. In general, how would the risks in Tier 2 be mitigated?

A. The majority of the risk mitigation in Tier 2 would comprise contract terms and conditions, such as take-or-pay requirements for service at Tier 2 Rates. Further details of Tier 2 risk mitigation would be developed in successive rate cases as BPA develops and proposes Tier 2 Rate Alternatives, assesses the risks facing the Tier 2 Cost Pools at that time, and proposes appropriate mitigation measures.

Q. Can you be certain that providing service under Tier 2 Rates would not add costs to the Tier 1 Cost Pool or require additional risk mitigation in Tier 1?

A. Yes. Under our proposal, BPA would limit its Tier 2 offerings to those that do not pose unmitigated risks that would increase Tier 1 Costs or require enhancement of Tier 1 risk protection. *See* TRM section 9.2.

Q. Would Tier 2 Rates include Planned Net Revenues for Risk (PNRR)?

A. Probably not, though this question could be answered only in each rate case. The function of PNRR is to generate revenue to build up financial reserves to buffer BPA

against financial risk. The PNRR mechanism is not readily applicable to Tier 2 risks, because we are proposing not to attribute financial reserves to Tier 2 Cost Pools. Accordingly, because there would be no financial reserves attributed to Tier 2 Cost Pools, PNRR *per se* would not be a risk mitigation tool that could be used for Tier 2 Cost Pools or Tier 2 Rates.

Section 4: Risk Mitigation in Tier 1

Q. In general, how do you propose to mitigate Tier 1 risks?

A. At this point, we expect that BPA's risk mitigation for the Non-Slice Cost Pool would generally be a continuation of the risk mitigation for non-Slice rates that BPA has used for the last decade. Each rate case has brought changes to the non-Slice risk package, but the changes have been consistent with BPA's overall philosophy of risk mitigation. The risk packages BPA includes in its Power rates have relied in large part on financial reserves, with PNRR often but not always added to the revenue requirement to build up reserves. Cost-adjustment mechanisms generally are included in rate proposals (examples include Cost Recovery Adjustment Clauses (CRACs), including the Financial-Based CRAC, the Load-Based CRAC, and the Safety-Net CRAC; the Dividend Distribution Clause; and the Adjustment and Emergency Surcharge related to the National Marine Fisheries Service Federal Columbia River Power System Biological Opinion). BPA would probably also need to use some reserves to provide liquidity within each year (liquidity reserves, formerly called working capital). The efficacy of these measures would be determined by TPP or any successor risk standard(s) BPA adopts. BPA likely would continue to set rates to achieve a two-year 95 percent TPP, as determined in BPA's 10-Year Financial Plan or its successor(s).

Q. Are those the tools you would use for mitigating non-Slice Tier 1 risk under the TRM?

A. As with our proposed overall approach to risk in the TRM, specific plans for mitigating risk related to the Tier 1 Cost Pool would be decided in each rate case. Likewise, the actual selection of risk mitigation tools would be made in each rate case.

There may be changes in BPA's financial risk standards that require BPA to look for new risk mitigation tools. For example, if BPA were to adopt a within-year financial risk standard, perhaps a VPP standard, to accompany the annual TPP standard, BPA may need new tools to manage within-year liquidity risk. For the most part, however, we anticipate that non-Slice risk mitigation would be a continuation of current practice, and we do not currently have plans for changes.

Section 5: Risk Mitigation for the Slice Product

Q. How do you propose to mitigate risks associated with Slice?

A. We are proposing some changes to the Slice product that would further mitigate risks. As in the current Slice rate methodology, the primary mitigation mechanism for financial risks associated with the Slice product would be the use of annual cost true-up adjustments at the end of each Fiscal Year. However, if this method is shown to cause cost shifts between Slice and non-Slice customers, BPA would address this in the relevant rate case.

Q. How would the Slice product differ from other products, in terms of its risks?

A. Slice customers would assume BPA's financial risks directly rather than through other risk mitigation devices such as PNRR and financial reserves. The Slice product differs from BPA's other products in that the Slice customers would purchase a product based on the shape of the actual output of Tier 1 System Resources (with the exception of Augmentation, which would be delivered in flat annual blocks). This means that the power delivered would vary hourly, weekly, monthly, and seasonally.

Q. How would the Slice product address BPA's financial risks?

A. The Slice product would address BPA's financial risks by 1) transferring the power supply and market price risks directly to the Slice customers and 2) incorporating an annual True-Up Adjustment Charge for the differences between planned and actual expenses and credits in the Composite Cost Pool and Slice Cost Pool (*see* TRM Table 4.1). These risk mitigation mechanisms would ensure that the Slice customers would bear a proportionate share of the Power function's financial risks.

Q. How would power supply and market price risks and the Power function's cost uncertainties be transferred to the Slice customer?

A. The charges that the Slice customer pays would not include credits for secondary revenues. Instead, the Slice customer would receive a share of secondary energy directly and must realize the secondary revenues through its own marketing actions. The Slice customer would deal with the same uncertainties, variability, and costs that BPA incurs with the marketing of its secondary energy. If the supply of secondary energy decreases, the market price for secondary energy decreases, or the costs of transmitting the secondary energy increase, then the Slice customer's net revenues would decrease, just as BPA's net revenues would do in similar circumstances. The Slice customer would assume the risks that the secondary energy will be available and that the related market prices will be as forecast in BPA's ratesetting process.

Q. What other risks would the Slice customers assume?

A. The Slice customer would assume the risk of having to purchase power when the customer's percentage share of the generation output from Tier 1 System Resources does not produce the power expected from it. The amount, shape, and timing of the generation output are subject to actual conditions, and the Slice customer would accept the risks associated with this uncertainty and variability. The Slice customer would assume the risks associated with the uncertainty of market prices for purchasing or selling power.

The Slice customer also would share in the variability of the Power function's expenses and revenue credits through the proposed annual Slice True-Up Adjustment.

Q. *Is this why the Slice product purchases would have an annual true-up adjustment and other product purchasers would not?*

A. The current annual Slice True-Up Adjustment Charge was determined to be one of the appropriate financial risk mitigation methods applied to the Slice product in prior rate cases, and we propose to continue it for the Slice customers who would purchase under Regional Dialogue Contracts. The proposed rate design for products sold at Tier 1 Rates allows for the application of a variety of risk mitigation mechanisms to deal with the financial variability of the costs in the Composite Cost Pool. As stated in section 4 of this testimony, specific risk mitigation related to non-Slice customers purchasing power at Tier 1 Rates would be decided in each rate case. Likewise, the actual selection of risk mitigation tools would be made in each rate case.

Q. *Do you believe that the proposed annual Slice True-Up Adjustment is acceptable to Slice customers?*

A. Yes. The Slice customers have experience with a True-Up adjustment process based on their existing Slice product purchase. Over time, they have gained more knowledge about BPA expenses and credits. In addition, BPA's transparency with respect to the Power function's financial reports further helped them understand and track changes in expenses and revenues. The current True-Up Adjustment Charges for the existing Slice product have become less volatile, due to improved accuracy of BPA's financial forecasting and reporting. Less volatility in the True-Up has resulted in fewer unanticipated large changes than was the case in the early years of implementing the Slice True-Up.

Q. What is your proposal for determining the cost allocation to the Slice product for unanticipated expenses that are incurred during a Rate Period?

A. The proposed cost allocation principles in the TRM would guide the allocation of new expenses or revenue credits to the various Cost Pools. *See* TRM section 2.1. Once the expense or revenue has been accrued, BPA would allocate the amount to the appropriate Cost Pool, according to the cost allocation principles in the TRM. If BPA allocates the expense or revenue to a Cost Pool that applies to the Slice product, BPA would include that expense or revenue in the Slice True-Up calculation for that year.

Q. How do you propose to handle disputes related to Slice true-up issues?

A. We propose to address disputes related to Slice True-Up issues in rate cases subsequent to the True-Up calculation. Slice True-Up issues are rate issues and should be addressed in a rates forum to be discussed by all customers—these are issues related to cost allocation, and the resolution of these disputes will affect all customers. As such, parties may challenge BPA's allocation of a new expense or revenue credit through the Slice true-up in the rate case following that allocation (*see* TRM section 5.4.2).

Q. Addressing disputes related to True-Up issues in rate cases may not allow for timely adjustment of cost resulting from resolution of the issues. What are you proposing to address the time lag?

A. We recognize that the resolution of issues through rate cases can result in lags for which compensation will be required. Thus, we propose to compensate all customers for the time value of money through interest credits or charges to Slice customers for the lag period.

Section 5.1: Verification Process for Slice True-Up

Q. What is the proposed Slice cost verification process for the annual Slice True-Up?

A. The proposed verification of financial data in the Slice True-Up report would allow customers to submit information requests to validate whether BPA correctly calculated the amount of each cost on which the Slice True-Up calculation would be based. TRM section 9.4.2; *see also* Cherry *et al.*, TRM-12-E-BPA-02. The scope of the verification process would be limited to review of cost assignment and identifying errors in calculation and application of those costs. Customers would not be able to question BPA's accounting policies, standards, management decisions, application of other policies, or other similar issues.

Q. Who would participate in this verification process?

A. All customers would be allowed to participate.

Q. How would the verification process be developed?

A. The details of the verification process would be developed in relevant rate cases. BPA intends to include the protocols for the verification process in the General Rate Schedule Provisions. This would allow for periodic modification to the process over the life of the Regional Dialogue Contracts. The protocols for the verification process would be developed in consultation with customers to ensure specific customer concerns are identified and addressed in a collaborative manner.

Q. What would be the schedule for the verification process?

A. The verification process would occur in the second quarter of a Fiscal Year following the Fiscal Year to which the Slice True-Up Adjustment applies. In addition, the verification process could commence only after BPA has closed its financial records for the Fiscal Year and after they have been audited.

We anticipate that it may be possible to facilitate a smoother, faster verification process by using other, existing forums to discuss costs and their allocation during the year. For example, we expect BPA will start periodic Quarterly Business Review (QBR) meetings in November 2008. The February QBRs could be the starting points for the

Slice cost verification process for the annual Slice True-Up. The QBR is intended to be an ongoing forum for reviewing BPA's finances that would also allow customers to inquire about specific costs. At the QBR meetings or other similar BPA public forums related to cost reviews, customers could request specific information about certain accounts to ensure that the contents of those accounts comport with the costs specifically excluded from Slice. As new costs arise, the QBR could be a forum for discussing BPA's expected allocation between Slice and non-Slice customers.

Q. Does this conclude your testimony?

A. Yes.

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