Tiered Rate Methodology Rate Case

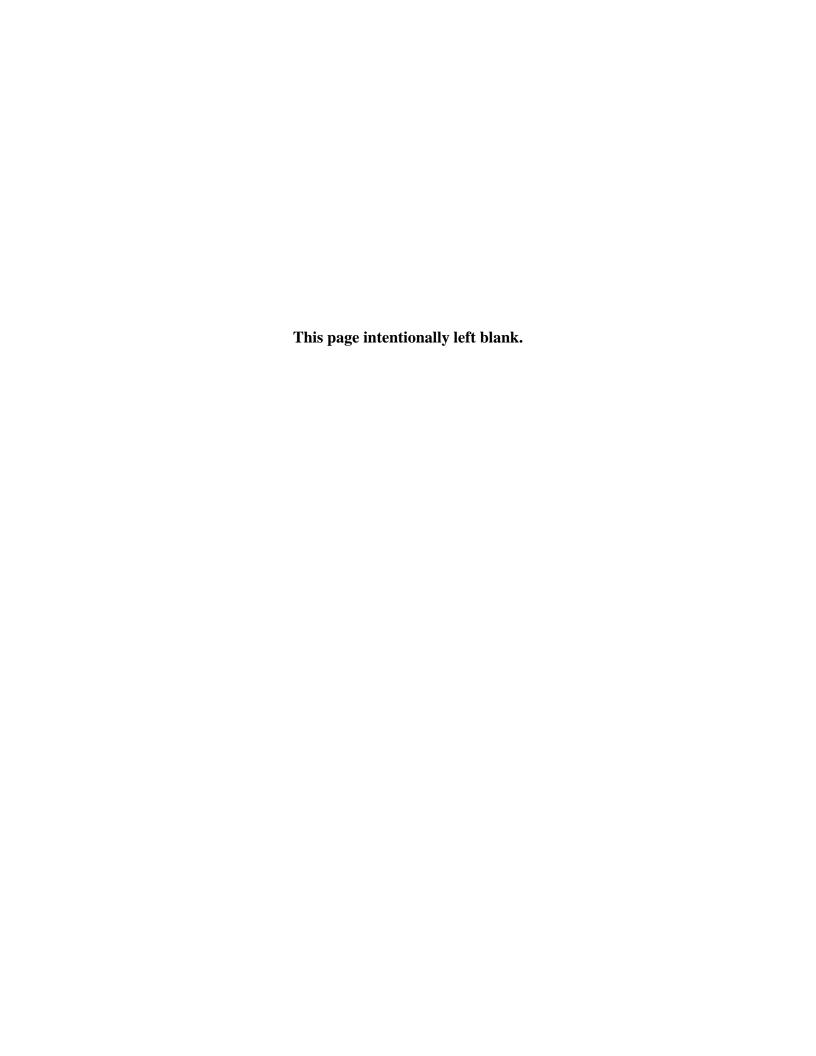
DIRECT TESTIMONY

May 2008

ELIGIBILITY TO PURCHASE AT TIER 1 AND TIER 2 RATES:

Stene, Davis, Warner, Wilson





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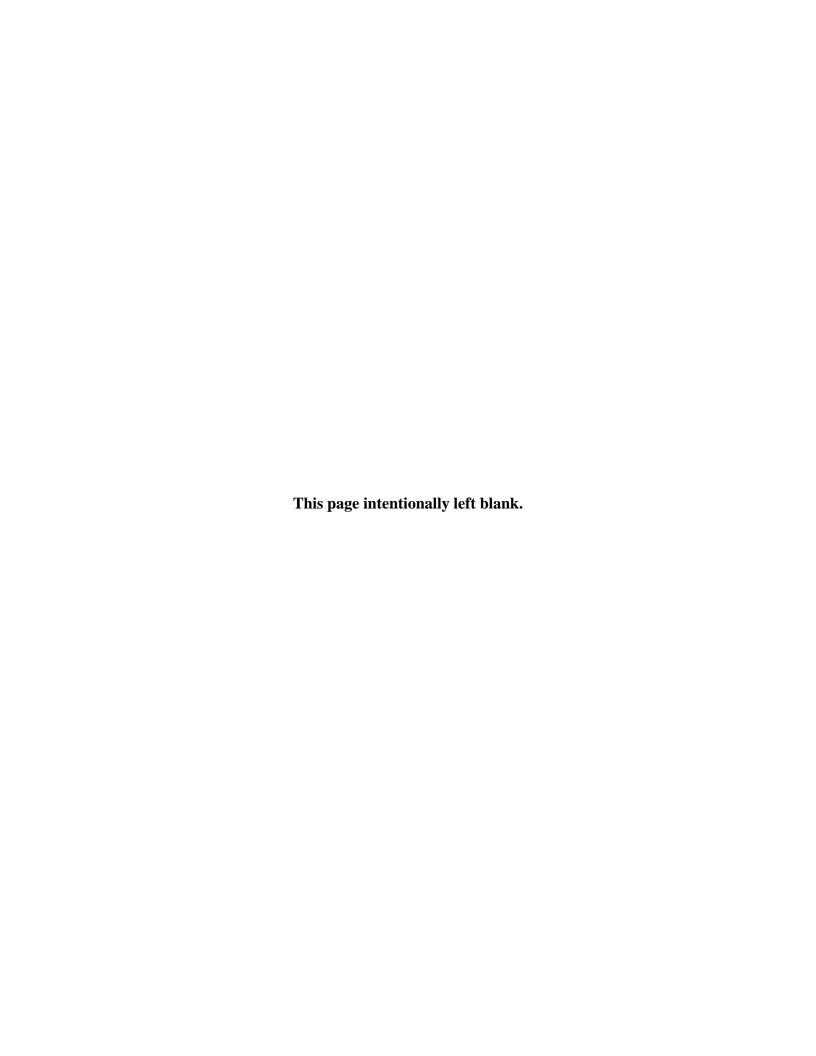
TESTIMONY of

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

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5	SUBJ	ECT: ELIGIBILITY TO PURCHASE AT TIER 1 AND TIER 2 RATES
6	Sectio	n 1: Introduction and Purpose of Testimony
7	Q.	Please state your names and qualifications.
8	A.	My name is Larry Stene, and my qualifications are found at TRM-12-Q-BPA-16.
9	A.	My name is Reed Davis, and my qualifications are found at TRM-12-Q-BPA-05.
10	A.	My name is Joshua Warner, and my qualifications are found at TRM-12-Q-BPA-18.
11	A.	My name is Scott Wilson, and my qualifications are found at TRM-12-Q-BPA-19.
12	Q.	What is the purpose of your testimony?
13	A.	The purpose of this testimony is to explain 1) the function of and process used to
14		develop the Contract High Water Mark (CHWM); 2) the function of and process used to
15		develop the Rate Period High Water Mark (RHWM); 3) the methodology used to
16		determine above-RHWM load during the Transition Period (FY 2012, 2013, and 2014);
17		4) the method for determining Tier 2-priced purchase amounts during the Transition
18		Period; and 5) the method for determining Tier 2-priced purchase amounts after the
19		Transition Period. This testimony makes use of defined terms in the Tiered Rate
20		Methodology (TRM); see TRM pages v-xvii.
21	Q.	How is your testimony organized?
22	A.	This testimony contains five sections, including this introductory section. In section 2,
23		we provide an overview of High Water Marks (HWMs) and their role in the TRM. In
24		section 3, we address the methodology for developing CHWMs and RHWMs. In
25		section 4, we address the Transition Plan for the TRM to provide planning certainty to
26		customers and BPA prior to the start of power deliveries under the CHWM Contracts.

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1		In section 5, we address the method for determining Tier 2-priced purchase amounts
2		after the Transition Period.
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4	Sectio	n 2: Overview of High Water Marks
5	Q.	What role would HWMs play in BPA's Tiered Rate Methodology?
6	A.	HWMs would be the dividing line between BPA's pricing service at Tier 1- and Tier 2-
7		based rates on a forecast amount of annual energy. It would be the starting point for
8		determining the amount of power each customer would be eligible to purchase at the
9		Tier 1 Rate and would define the remainder of a customer's planned power service as
10		"above-RHWM load." HWMs would be measured in annual average megawatts and
11		based upon 1) a customer's firm retail load and 2) the forecast firm critical output of a
12		defined set of Federal resources (Tier 1 System Resources) including limited
13		Augmentation amounts. See TRM section 3; see also Misley et al., TRM-12-E-BPA-04.
14		HWMs would be used to proportionately distribute costs of Tier 1 System Resources
15		among eligible BPA customers based on their load. The Tier 1 and Tier 2 pricing would
16		not limit the amount of power a customer may buy from BPA; its Net Requirement does
17		Consistent with section 5 of the Northwest Power Act, the maximum amount of Priority
18		Firm power a customer may purchase is limited by the customer's Net Requirement.
19	Q.	How would a customer's HWM and Net Requirement interrelate?
20	A.	A customer's HWM would establish only the prices applicable to the amount of power
21		the customer is eligible to purchase. This price limitation would not affect a customer's
22		right to have BPA meet its Net Requirement. To the extent that a customer elected BPA
23		to serve its Net Requirement in excess of its RHWM, BPA would serve that portion of
24		the customer's Net Requirement at a Tier 2 Rate.
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 ${\it Please explain the different types of HWMs that BPA would develop.}$

- 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

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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?
 - 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

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, adjusted for

- 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.

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Section 3.1: Measured FY 2010 Load

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

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1		obtained from BPA or customer meters, BPA would request the retail load information
2		that would be supplied to FERC as part of the customer's annual 714 Report submittal.
3		BPA would then verify this information with alternative data sources. See TRM
4		section 4.2.1.
5	Q.	How would load forecasts affect the final CHWM values in FY 2010?
6	A.	They would have no effect. The CHWM values would be based on actual measured
7		values. We discuss the role of load forecasts in the determination of the FHWM,
8		THWM, and above-RHWM load amount during the Transition Period individually in this
9		testimony.
10	Q.	Are there other ways to measure TRL and other methods of performing normalizing
11		adjustments?
12	A.	Yes, there are alternate ways that customers may use to determine TRL, and likewise
13		other methods to adjust for various types of events that may affect a customer's TRL.
14		We have proposed the methodologies described in this testimony and in the TRM
15		because they provide an effective and cost-conscious methodology for determining and
16		normalizing customers' TRLs for the CHWM determination process.
17	Q.	What adjustments would be made to the Measured FY 2010 Load?
18	A.	As described above, the Measured FY 2010 Load determined for each customer would be
19		corrected for the effects of atypical weather and material load and data anomalies.
20		
21	Sectio	n 3.1.1: Adjusting Measured FY 2010 Load for Anomalies
22	Q.	What is the purpose of the load data anomaly adjustment?
23	A.	The Measured FY 2010 Load is intended to provide a representation of the load a
24		customer would experience under normal circumstances. Anomalies in the actual
25		FY 2010 firm retail load or in the metered load data (e.g., missing or corrupted data)
26		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?
- 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.

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1	Section	on 3.1.2: Adjusting Measured FY 2010 Load for Atypical Weather
2	Q.	Would BPA adjust the load data for effects of atypical weather?
3	A.	Yes. BPA would adjust the Measured FY 2010 Load to normalize the load data for the
4		impact of atypical weather on load. BPA would use different methods of weather
5		normalization depending upon whether the load is non-irrigation or irrigation load. See
6		TRM section 4.2.1.2 and TRM Figures 4.2 and 4.3.
7	Q.	How would BPA adjust the non-irrigation loads?
8	A.	BPA would use standard techniques to make regular statistical estimates of the impact of
9		temperature on the load. The proposed method would estimate the impact of heating
10		load, usually in the winter when cold temperatures result in an increased load, typically
11		for space heating. The method also would separately estimate the impact of cooling load
12		typically in the summer when warmer temperatures increase air conditioning usage. This
13		estimation would be done at the consumer level and would result in a weighted impact of
14		the individual effects of consumer classes.
15	Q.	What temperature data would be used to estimate these effects?
16	A.	We propose to use temperature readings from national weather stations close to the load
17		centers for each customer along with recorded customer loads for this analysis.
18	Q.	How would BPA create these estimates for those few customers where BPA would not
19		have recorded loads?
20	A.	To make sure we would be treating all customers similarly, we would require customers
21		to supply BPA with recorded load data from a verifiable source so we could do the same
22		calculations on their loads with temperatures that BPA would obtain from a national
23		weather station.
24	Q.	Why would you try to treat all customers similarly in this process?
25	A.	We are proposing a goal of using transparent, consistent methods for all customers in
26		calculating the CHWM to reduce as much as possible the impact that variations in

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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?
 - 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

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1		additional power needed through Non-Federal Resources to meet its above-RHWM load
2		obligation.
3	Q.	What if a Load Following customer's above-RHWM load in FY 2012 and 2013 is
4		different from forecast?
5	A.	The proposed Load Shaping Charge would provide a market-based credit to the
6		customer for any over-commitment to purchase Tier 2-priced power and a market-based
7		charge for any under-commitment to purchase Tier 2-priced power. See Fisher et al.,
8		TRM-12-E-BPA-06, section 2.3.
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10	Sectio	n 5: Tier 2-Priced Purchases and the RHWM Process
11	Q.	In the RHWM Process, how would above-RHWM load amounts and Forecast Net
12		Requirements be determined for the third year of the Transition Period?
13	A.	Prior to each Rate Period, above-RHWM load amounts for each customer would be set
14		by BPA in the RHWM Process. First, BPA would determine each customer's RHWM.
15		Then, BPA would forecast each customer's TRL minus Existing Resource amounts.
16		The customer's above-RHWM load will be set as the amount that its TRL minus
17		Existing Resources exceeds its RHWM. Each customer's contract would be consulted
18		for the election the customer had made regarding how its planned amount of above-
19		RHWM load would be served. To the extent that BPA would be obligated to serve any
20		portion of a customer's above-RHWM load, the power sold would be priced at a Tier 2
21		Rate. The combination of the customer's planned service amounts to be purchased from
22		BPA at Tier 1 and Tier 2 rates would equal its Forecast Net Requirement for ratesetting
23		purposes.
24	Q.	Please describe how BPA would set an amount of service at Tier 2 Rates for a customer
25		during a Rate Period.

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