

**This is the accompanying white paper that should be read with the Tier 2 rate and RSS/Related Services Pricing Proposal PPT, for the April 13, 2010 WP-12 workshop. Updated April 19, 2010.**

## **Part 1: Remarketing for Tier 2 Rate and Specified Resources taking Diurnal Flattening Service**

This document outlines the notification and rate remarketing expectations for customers with lower than expected Above-RHWM loads that are taking either Tier 2 service from BPA or applying a Specified Resource to load and purchasing BPA's Diurnal Flattening Service for that service.

The rate remarketing portion of this document is a proposal at this time and will not be final until issued in the WP-12 Final Record of Decision. Notification deadlines and other issues finalized in the Regional Dialogue Contracts or Tiered Rate Methodology are final.

### **Part 1.A.** **Process**

Crediting the Tier 2 Load Growth Pool for purchases made in excess of customer Above-RHWM needs.

BPA will assess the need for a remarketing credit to the Tier 2 Load Growth Pool should Above-HWM loads be lower than purchased for. Above-HWM loads will be calculated biennially approximately one year prior to the start of each two-year rate period. For crediting purposes, BPA will treat the adjustment to the Load Growth Pool as a remarketing service. The appropriate cost pool will receive a credit for based on the remarketing valuation minus any remarketing fees.

### **Remarketing Valuation**

BPA will use a market price forecast for crediting the Tier 2 Load Growth Pool for purchases that exceed Above-RHWM forecast need. This will be the same market price forecast used for the Resource Shaping Charge and Load Shaping Charge.

The market price forecast will not be known in advance of BPA calculating the credit to be made to the Load Growth Pool cost pool.

### **Remarketing Fee**

The customer will continue to pay all costs associated with the original Tier 2 Load Growth purchase. As indicated in the final Tiered Rate Methodology and referenced in section 10 of the Regional Dialogue Contract, customers will be responsible for covering any fees associated with remarketing of Tier 2 purchase commitments. Fees may include transaction costs, transmission costs, transmission losses, and odd lot remarketing fees. BPA also may include a risk

component or adjustment to account for potential differences between forecast and actual market prices.

At this point in time, BPA anticipates two transaction costs associated with remarketing that will be charged to customers requesting a remarketing credit. This includes transmission costs and a standard brokerage fee. Should there be additional transaction costs in the future BPA will propose those costs in a future 7(i) process.

BPA anticipates it will need to purchase Firm Transmission for resource remarketing three months out of the year based on the output of the Federal system. Generally, BPA will likely have sufficient Firm Transmission for remarketing except during months when there is a higher amount of surplus power from the Federal system.

To determine the transmission cost BPA will employ a probability model to determine the amount of Firm Transmission that may need to be purchased during those three months. The cost of that purchase will then be distributed on a percentage basis, including a percentage share to the appropriate cost pool for Load Growth Pool purchases.

## **Part 1.B.**

### **Service**

Remarketing credit determination for Load Following customers with Tier 2 Vintage Rate purchase amounts, capped Tier 2 Load Growth Rate purchase amounts or Specified Resource amounts taking the Diurnal Flattening Service that must experience resource removal.

### **Notification Requirements**

Per section 10 of the Regional Dialogue Load Following Contracts a customer must notify BPA by October 31 of each rate case year should it want a remarketing credit for a portion of its Tier 2 rate purchase amount or Dedicated Resource taking DFS due to lower than expected Above-RHWM load forecast. Forecast Above-RHWM loads will be determined biennially in the RHWM development process prior to each rate case.

If a customer has excess Tier 2 amounts and Specified Resource amounts taking DFS and does not notify BPA of its need for remarketing or resource removal, BPA will determine the order and amounts to be removed.

### **Remarketing Valuation**

BPA will use a market price forecast for remarketing Tier 2 Vintage, capped Load Growth Rate purchases and Specified Resource amounts taking DFS. This will be the same market price forecast used for the Resource Shaping Charge and Load Shaping Charge.

By October 31, Customers will notify BPA of the amount of Tier 2 or Specified Resource amounts taking DFS to be remarketed or experience resource removal based on forecast Above-RHWM load. BPA will use the following steps to determine the billing determinant:

1) Annual Average amount of excess power to be remarketed in aMW multiplied by 8,760 hours to achieve MW, 2) MW to be remarketed multiplied by the market price forecast to achieve the annual price, and 3) annual price divided by 12 to achieve the monthly credit to be applied to the customer's bill.

The market price forecast will not be known in advance of customers requesting remarketing and will be determined in the applicable 7(i) Process. There will be no true-up should prices be different when, and if, BPA actually remarkets the power.

### **Remarketing Fee**

The customer will continue to pay all costs associated with the original Tier 2 Vintage, capped Load Growth Rate purchases and DFS for the amount of the Specified Resource prior to implementing any resource removal. As indicated in the final Tiered Rate Methodology and referenced in section 10 of the Regional Dialogue Contract, customers will be responsible for covering any fees

associated with remarketing of Tier 2 purchase commitments. Fees may include transaction costs, transmission costs, transmission losses, and odd lot remarketing fees. BPA also may include a risk component or adjustment to account for potential differences between forecast and actual market prices.

At this point in time, BPA anticipates two transaction costs associated with remarketing that will be charged to customers requesting a remarketing credit. This includes transmission costs and a standard brokerage fee. Should there be additional transaction costs in the future BPA will propose those costs in a future 7(i) process.

BPA anticipates it will need to purchase Firm Transmission for resource remarketing three months out of the year based on the output of the Federal system. Generally, BPA will likely have sufficient Firm Transmission for remarketing except during months when there is a higher amount of surplus power from the Federal system.

To determine the transmission cost BPA will employ a probability model to determine the amount of Firm Transmission that may need to be purchased during those three months. The cost of that purchase will then be distributed on a percentage basis to customers requesting a remarketing credit.

The forecast market credit will be netted against the customer's monthly bill minus any associated transaction costs as described above.

## **Part 1.C.**

### **Service**

Remarketing credit determination for Slice/Block customers with Tier 2 Short-Term Rate purchase amounts, Vintage Rate purchase amounts, or Specified Resource amounts taking the Diurnal Flattening Service that must experience resource removal.

### **Notification Requirements**

Per section 10 of the Regional Dialogue Slice/Block Contracts, there are two opportunities for Slice/Block customers to request a remarketing credit for Tier 2 purchases or Specified Resources amounts taking DFS due to a lower than expected Preliminary Net Requirement during the first fiscal year of a rate period. Customers have the opportunity to request a remarketing credit in the first and subsequent year of a rate case when Annual Net Requirements are calculated.

Section 10.2 of the Regional Dialogue Contract indicates a customer must notify BPA by August 31 of the applicable rate case year to request a remarketing credit for a Tier 2 purchase amount or a Specified Resource taking DFS.

Section 10.3 of the RD Contract allows a customer to notify BPA of the need for additional remarketing credits or resource removal in subsequent rate period years. This notification must be provided by August 31 of the applicable fiscal year.

If a customer has excess Tier 2 amounts and Specified Resource amounts taking DFS and does not notify BPA of its need for remarketing or resource removal, BPA will determine the order and amounts to be removed.

### **Remarketing Valuation**

When a Slice/Block customer requests remarketing of any portion of its Tier 2 rate purchase amount or resource removal for a Specified Resource taking DFS, BPA will establish a remarketing credit based on the Resource Shaping Rates. Due to the difference in notification timing between 1) a Load Following or Block customer and 2) a Slice/Block customer, BPA will likely establish a formula adjustment to the Resource Shaping Rates so as to more accurately assess the value at the later notification of a Slice/Block customer. However, given the small amounts (2 aMW) of Slice/Block Tier 2 susceptible to resource remarketing treatment in the first rate case, BPA proposes to postpone development of the formula adjustment and instead use the unadjusted Resource Shaping Rates.

By August 31, Customers will notify BPA of the amount of Tier 2 to be remarketed or Specified Resource taking DFS to be removed based on Preliminary Net Requirements. BPA will use the following steps to determine the billing determinant:

1) Annual Average amount of excess power to be remarketed in aMW multiplied by 8,760 hours to achieve MW, 2) MW to be remarketed multiplied by the market price forecast to achieve the annual price, and 3) annual price divided by 12 to achieve the monthly credit to be applied to the customer's bill.

### **Remarketing Fee**

The customer will continue to pay all costs associated with the original Tier 2 Short-Term or Vintage purchase, and DFS for the amount of resource prior to implementing any resource removal. As indicated in the final Tiered Rate Methodology and referenced in section 10 of the Regional Dialogue Contract, customers will be responsible for covering any fees associated with remarketing of Tier 2 purchase commitments. Fees may include transaction costs, transmission costs, transmission losses, and odd lot remarketing fees. BPA also may include a risk component or adjustment to account for potential differences between forecast and actual market prices.

At this point in time, BPA anticipates two transaction costs associated with remarketing that will be charged to customers requesting a remarketing credit. This includes transmission costs and a standard brokerage fee. Should there be additional transaction costs in the future BPA will propose those costs in a future 7(i) process.

BPA anticipates it will need to purchase Firm Transmission for resource remarketing three months out of the year based on the output of the Federal system. Generally, BPA will likely have sufficient Firm Transmission for remarketing except during months when there is a higher amount of surplus power from the Federal system.

To determine the transmission cost BPA will employ a probability model to determine the amount of Firm Transmission that may need to be purchased during those three months. The cost of that purchase will then be distributed on a percentage basis to customers requesting a remarketing credit.

The forecast market credit will be netted against the customer's monthly bill minus any associated transaction costs as described above.

## **Part 2: Proposal for Charges for Tier 2 Modification**

This proposal outlines the charge associated with a customer that, in accordance with its Load Following Regional Dialogue contract, notifies BPA by October 31 of a rate case year that it is opting to modify its Tier 2 Firm Requirements power purchase obligation. There are two different situations where a customer would incur a modification charge:

- 1) In accordance with Exhibit C, Section 2.2.4, a customer opts to no longer purchase Firm Requirements power at the Load Growth Rate (LGR) to serve its future load growth and instead will serve that portion of its Above-RHWM load with non-Federal Power; or
- 2) In accordance with Exhibit C, Section 2.4.2, a customer opts to reduce some or all of the Firm Requirements power it has elected to purchase at the Short-Term Rate (STR) and instead serve that portion of its Above-RHWM load with non-Federal Power.

This proposal does not address a situation where a customer requests to modify its Tier 2 purchase obligation outside of the contractual notification period contained in the Load Following Regional Dialogue contracts. If such a situation arises, BPA intends to deal with it on a case-by-case basis. This proposal also does not address the charges associated with a customer opting to convert some or all of the Firm Requirements Power it elected to purchase at the Tier 2 STR to a Tier 2 Vintage Rate. BPA will determine whether any rates or charges should be applied for a customer transferring from a Tier 2 STR to a Tier 2 Vintage rate in the first 7(i) process that establishes a Vintage rate.

The proposed charge outlined below is intended to mitigate any damages to the rate pool as a result of a customer modifying its purchase obligation such that the remaining customers in the affected rate pool are not responsible for covering the cost of any power purchased in reliance upon serving the Above-RHWM load of the customer now modifying its purchase obligation.

The charge captures the costs that BPA incurred in reliance upon the customer's initial Tier 2 Purchase Period election and cannot recover through other transactions.

### **Tier 2 Modification Charge**

A customer that is modifying its Tier 2 purchase obligation will be charged for the difference between the cost of any forward market purchase(s) made for its Tier 2 rate pool and the credit for the remarketing of such forward purchase(s). In no case will the customer receive a credit overall.

### **1. Cost of any forward purchase(s) made for the Tier 2 Rate Pool**

To the extent BPA has made forward market purchase(s) or acquired resource(s) in reliance on a customer's election to purchase Tier 2 power in a rate pool, the customer will be charged for its share of the forward power purchase at the cost to BPA of the market purchase or acquiring the resource and converting it to a flat block with forecast RSS charges.

### **2. Remarketing credit for any forward purchase(s)**

BPA will credit the customer for reallocating/remarketing the customer's share of the forward purchase(s) at 90 percent of BPA's forecast of the mark to market Mid-C price of the power on November 1 following a customer's notification to reduce its Tier 2 purchase obligation. If a customer notifies BPA significantly earlier than October 31 of a rate case year, BPA may consider forecasting the price on a date other than November 1. The 10 percent remarketing fee is intended to capture any administrative and overhead costs associated with the purchase and remarketing of the power.

If RECs are associated with the forward purchases made for the applicable Tier 2 rate pool, BPA will take into consideration the value of the RECs in the remarketing credit.

Principles of reallocating/remarketing forward purchases and allocating the costs associated with such purchases are further specified in section 3.4 of the TRM.

### **3. Risk Mitigation Tool**

For forward purchases that extend beyond the rate period, BPA intends to add a risk mitigation charge to the modification charge to account for the risks associated with forecasting market prices at the time of calculating the modification charge and forecasting the market price of the power at the actual time the reallocation or remarketing occurs in upcoming rate periods. BPA will propose a method for developing the risk mitigation tool in a future rate case once the need arises.

### **Payment of Modification Charge**

A customer shall pay BPA for any modification/conversion charge incurred in no more than 24 equal monthly amounts beginning the first month of the next Rate Period. Consistent with Exhibit C, sections 2.2.4.4, 2.3.1.4 and 2.4.2.2, BPA will not make a payment to a customer as a result of the customer modifying its purchase obligation; therefore the total modification charge will be the greater of the charge or \$0.

The charges collected from a customer reducing its purchase obligation will be kept within the affected rate pool to offset the costs incurred by the rate pool as a result of the customer modifying its purchase obligation. Should a Modification Charge be collected for a forward purchase that extends beyond the rate period, BPA intends to recognize the revenues collected from the charge over the rate periods that the forward purchase was made and will develop a method for doing so in a future rate case once the need arises. Since the goal is to keep the cost pool unharmed by the Modification Charge, BPA does not want to skew the impacted cost pool by recording all of the revenue in one rate period when the modification of the purchase obligation really impacts multiple rate periods.

### **Example**

In October 2010, Customer A notifies BPA that it is modifying its initial election to serve its entire Above-RHWM load at the STR and instead will be exiting the STR pool. In July 2010, BPA purchased 21.0 aMW of power for the STR pool for FY 2012. BPA has made no other forward market purchases for the STR pool.

Customer A's Above-RHWM for FY 2012 = 2.500 aMW  
Total STR pool Above-RHWM for FY 2012 = 21.000 aMW  
Raw cost of forward purchase = \$50.00/MWh  
Forecast of the market price = \$55.00/MWh

Customer A's charge for the forward purchase is:

#### **1. Cost of the forward purchase**

customer's share of forward market purchase in aMW \* 8760 \* raw cost of forward purchase

$$2.500 * 8760 * \$50.00 = 2.500 * 8760 * \$50.00 = \$1,095,000$$

#### **2. Remarketing Credit**

customer's share of the forward market purchase in aMW \* 8760 \* forecast market price \* 90 percent

$$(2.500 * 8760 * \$55.00) * 0.90 = \$1,204,500 * 0.90 = \$1,084,050$$

#### **3. Total Charge**

cost of forward purchase – remarketing credit

$$\$1,095,000 - \$1,084,050 = \$10,950$$

No risk mitigation is needed since the forward purchase did not extend beyond the rate period. Therefore, Customer A's Modification Charge is \$10,950.

In accordance with the TRM, because the forward purchase exceeds the STR pool's load after Customer A's exit, the excess power will be reallocated 1) to another Tier 2 pool, 2) for CHWM augmentation or 3) for surplus power for sale. (Note that if the STR pool had the load to absorb Customer A's share of the forward purchase, the megawatts would have stayed the pool.) The STR pool will pay the initial cost of the forward purchase and any costs associated with overhead, administration and remarketing. The STR pool will be credited for Customer A's modification charge and the actual reallocation/remarketing of the forward purchase at forecast market prices.

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### **Part 3: Resource Support Services (RSS) and Related Services for Either Application to Tier 2 Rate Cost Pools or Customers' Non-Federal Resources**

The descriptions below are the staff proposals for how to treat 1) the Resource Support Services and related services' pricing for customers' non-dispatchable non-Federal resources; and 2) the Resource Support Services and related services' pricing that are involved in the development of certain Tier 2 rates. These proposals are subject to input by stakeholders during workshops in FY 2010 and the rate case during FY 2011. As such, these proposals may change prior to BPA's Initial Proposal and are subject to the WP-12 rate case. Final determinations for FY 2012-13 on these matters will be captured in the Final ROD.

It is unlikely that these RSS charges will be included in the Tier 2 Short-term rate because it is unlikely that we will be assigning the costs of non-dispatchable, variable resources to that cost pool. These will likely be included in a Tier 2 Vintage rate cost pool or potentially in the Tier 2 Load Growth rate cost pool.

#### **1. Diurnal Flattening Service (DFS)**

**Product Description Summary:** This service allows a customer's load service from BPA to change for purposes of offsetting the output variation in the customer's specified non-Federal resource(s). The charges (including the Resource Shaping Charge and its Adjustment) applied to the planned non-Federal resource amounts recover the forecast costs of firming and shaping these variable resources into a flat annual average block of energy. Although BPA plans to detail the rate design used to accomplish this in a future rate case, the current thinking is that diurnal flattening energy and capacity charges will apply to customers' resources taking the flattening service to arrive at resource amounts equivalent to a resource that is flat within each monthly diurnal period. In addition, there will be a Resource Shaping Charge (or credit) applied to take the monthly diurnal amounts and compare them to a flat annual average block of energy. This will be coupled with a Resource Shaping Charge Adjustment that will account for differences between projected and actual resource performance.

#### **Pricing Proposal:**

##### **A. DFS capacity charge proposal:**

BPA will calculate the DFS Capacity Charge by looking at the lesser of the annual or monthly capacity needs of the resource DFS is applied to. The annual look involves multiplying the average annual Demand rate (expressed in a \$/MW-Month fashion) by the calculated difference between planned annual average HLH energy amount and the amount of firm capacity provided by the resource for a year as determined by an algorithm set in each rate case. The monthly look involves multiplying the monthly Demand Rates (expressed in a \$/MW-Month fashion) by the calculated difference between planned average HLH energy

amounts for each month and the amount of firm capacity provided by the resource for that particular month as determined by an algorithm set in each rate case.

**For Tier 2:** The annual amounts or the sum of the monthly amounts is then divided by the total planned generation for a year (converted to megawatt-hours). The resulting \$/MWh value is added to the applicable Tier 2 rate.

**For non-Federal resources:** The annual amounts or the sum of the monthly amounts is then divided by 12 to come up with a monthly charge that will be added to the contract.

Note: The rate case will also determine an algorithm that calculates a HLH and LLH Operating Minimum amount for each resource and will include these values in section 2.3.6.2 of exhibit D in the contract. The firm capacity provided by the resource and the Operating Minimum will be subject to customer discretion and if desired by the customer biennially, will move in tandem (one for one) based on the customer's election.

#### **B. DFS energy charge proposal:**

BPA will calculate the DFS Energy Charge by first calculating a DFS Energy Rate (as a single rate for the rate period).

**Step 1:** BPA does so by summing the MWhs of the historical hourly resource generation (historical data from the resource or similar resource hourly data if no history exists) that is above the planned average diurnal energy amounts. (**For non-Federal resources**, this is based on the planned amounts in section 2.3.6.2 of exhibit D). This would be calculated separately for each Monthly/Diurnal period of the year.

**Step 2:** BPA would multiply these MWh amounts by 25 percent (the assumed loss factor of a pumped storage unit) and then again by the applicable Resource Shaping Rates.

**Step 3:** BPA would sum the Monthly/Diurnal dollar amounts resulting from the calculation done in step two and divide it by the sum of the total monthly planned aMW energy amounts (converted to megawatt-hours). (**For non-Federal resources**, this is based on the planned amounts in section 2.3.6.2 of exhibit D).

The quotient of the calculation done in step three would be the dollar per MWh rate that is applied to each month to either the amounts measured by the meters for the resources, or if such resources are scheduled, then to the scheduled amounts to arrive at the monthly DFS Energy Charge. In other words, the DFS energy rate is applied to either actual scheduled or metered generation to determine the charge (after acknowledging FORS, TCMS, planned outage replacement, economic dispatch, and UAIs).

## 2. Resource Shaping Charge

BPA will either apply a credit or charge to the applicable customers for the difference in market-based value between the average, planned monthly diurnal megawatt amounts (**for non-Federal resources**, this is based on the amounts in exhibit A if the resource is not taking DFS and exhibit D if it is taking DFS) and the annual average megawatt amounts for the applicable year (**for non-Federal resources**, this is based on the amounts in exhibit A).

**Step 1 for New Small Non-Dispatchable Resources:** BPA proposes to use the Load Shaping Rates in lieu of the Resource Shaping Charge. The Load Shaping billing determinant will reflect the actual generation of the small Non-Dispatchable Resources.

**Step 1:** BPA will calculate the Resource Shaping Charge by first multiplying such monthly differences (converted to megawatt-hours) for all months of the upcoming Rate Period by the applicable Resource Shaping Rate, as established in BPA's Wholesale Power Rate Schedules and GRSPs.

**Step 2 for Tier 2:** The monthly amounts are summed for the applicable years of the rate period and then divided by the total planned generation for the applicable years of the rate period (converted to megawatt-hours). The resulting \$/MWh value is added to Tier 2 rate.

**Step 2 for non-Federal resources:** BPA will divide the sum of the dollar amounts calculated above in step 1 by 12 to calculate the fixed monthly Resource Shaping Charge.

## 3. Resource Shaping Charge Adjustment

BPA will calculate the Resource Shaping Charge Adjustment billing determinant by subtracting (A) either the amounts measured by the meters, or if such resources are scheduled then, the scheduled amounts (after acknowledging FORS, TCMS, planned outage replacement, economic dispatch, and UAs), from (B) the applicable planned amounts (**for non-Federal resources**, this is based on the amounts in exhibit D). The resulting value will be multiplied by the applicable Resource Shaping Rate.

#### 4. Forced Outage Reserve Service (FORS)

**Product Description Summary:** Through FORS BPA provides reserves at the start of an hour that can be called upon by the customer, with proper notice given to BPA, in the event of a resource outage for resources dedicated and specified to serve the customer's load. A resource with no capacity value taking the DFS from BPA described above is already getting the service equivalent to FORS for the resource.

##### **Pricing Proposal:**

###### **A. FORS capacity charge proposal**

The FORS capacity charge will be based on the capacity needed to back up a resource. BPA will calculate a forced outage rate for each resource (based on past generation, if available, and expected outage data).

**Step 1:** To calculate the capacity charge for a resource, BPA will multiply the forced outage rate by either: (1) the average HLH energy amounts in Exhibit A for **non-Federal resources** not getting DFS; or (2) the monthly firm capacity amounts of the resources getting DFS. BPA will then multiply this value by the applicable Tier 1 Demand Rate determined in the 7(i) Process, converted to \$/MW-Month.

**Step 2 for Tier 2:** The monthly amounts are summed up for the applicable years of the rate period and then divided by the total planned annual generation (converted to megawatt-hours). The resulting \$/MWh value is added to the initial Tier 2 rate.

**Step 2 for non-Federal resources:** This value is summed across the months of the year and then divided by 12 to come up with a monthly charge that will be added to the contract.

###### **B. FORS energy charge proposal**

**For Tier 2:** We propose to use the Resource Shaping Charge Adjustment to make up for any forced outage replacement power provided for Tier 2 resources.

**For non-Federal resources:** BPA plans on pricing the energy provided under FORS as follows: Except for the first 24 hours of energy provided during a Forced Outage, energy provided by BPA will be charged at the average of the daily Dow Jones Mid-C Prices over the applicable Monthly/Diurnal period. Energy provided during the first 24 hours of a Forced Outage shall be charged at the average of the hourly Dow Jones Mid-C Prices in effect during the first 24 hours of the Forced Outage (unless prices in a given hour are markedly greater than that day's average daily prices, in which case BPA may use the applicable hourly prices from BPA's Trading Floor). Out of concern for negative pricing, the values used will never be below zero.

## 5. Secondary Crediting Service (SCS) for non-Federal Resources Only

**Product Description Summary:** The first option of SCS takes the place of the Service and Exchange and Complex Partial with Dedicated Resource Services products from Subscription contracts. Customers previously taking the Service and Exchange product may continue to assign their shares of Priest Rapids and Wanapum to BPA in exchange for BPA providing credits and charges for amounts of generation that differ from planned amounts. Customers may continue to deliver their resource to a point of delivery other than their load, as they do today. The second option of SCS gives a customer the ability to apply the secondary energy generated by a specified hydro-electric resource to its load, and by doing so account for the value of the secondary energy applied to load beyond the amount established as firm energy.

### **Pricing Proposal:**

#### **A. Energy Charges and Credits**

BPA plans on using the Load Shaping Charge/Resource Shaping Charge to calculate the Secondary Energy credit and Shortfall Energy charge. Such determination is subject to a 7(i) process. The shortfall or secondary credit is measured by comparing monthly/diurnal specified Exhibit A amounts to the actual metered or scheduled generation, multiplied by the Resource Shaping rates. For load billing purposes, Exhibit A amounts are subtracted from customer's TRL for purposes of calculating the Demand and Load Shaping Charge.

#### **B. SCS Administrative Charge**

BPA proposes to calculate a customer's administrative charge in the form of a capacity reservation fee, as opposed to a more commonly found "administrative charge," but consistent with how BPA is structuring its grandfathered Generation Management Service. BPA will do so by multiplying an expected outage rate for the hydro resource based on past generation data, by the monthly firm HLH generation values in Exhibit A and the applicable Demand Rate as established in BPA's Wholesale Power Rate Schedules and GRSPs. The sum of the monthly values will be divided by 12 to come up with a monthly charge that will be added to the contract.

**6. Grandfathered Generation Management Service (GMS) for non-Federal Resources Only—this is an FYI because this approach is codified in contract language.**

**Product Description Summary:** The customer applies all of the output from the applicable resource, listed in section 2.1(1) of Exhibit A, as it is generated to the customer's Total Retail Load. BPA provides energy to the customer's Total Retail Load to meet any variations between the amounts generated and the amounts listed in section 2.1(1)(C) of Exhibit A for the applicable resource.

**Pricing:**

**A. Load Shaping Charge**

BPA shall credit or charge the customer for any monthly over- or under-generation using the Load Shaping Charge, as established in section 5.2 of the TRM. When BPA calculates the customer's Actual Tier 1 Load (which BPA will use to calculate the customer's Load Shaping Billing Determinant), BPA shall subtract (1) the generation estimates from CWI (for McNary Fishway) or metered amounts of the customer's hydro resource (for Moyie and Yelm) from (2) the customer's Total Retail Load.

**B. Reservation Fee for GMS**

BPA shall calculate the customer's reservation fee using an expected outage ratio for its resource, based on past generation data, and the Demand Rate as established in BPA's Wholesale Power Rate Schedules and GRSPs.

## 7. Transmission Scheduling Service/Transmission Curtailment Management Service (TSS/TCMS)

**Product Description Summary:** BPA's Transmission Scheduling Service (TSS) is a service provided by BPA Power Services where PS manages a Load Following customer's Network Transmission rights to schedule Federal and non-Federal resources to its load. One component of TSS is Transmission Curtailment Management Service (TCMS), which ensures the customer will receive all of the power it needs if its resource cannot be delivered to load due to a transmission curtailment (except during a force majeure event). BPA will provide replacement power or replacement transmission scheduling when there is a transmission event (in the form of a transmission curtailment or planned outage) between a customer's qualifying resource and its load. This service will provide such replacement power or transmission scheduling for the entire curtailment or planned outage.

### **Pricing Proposal:**

#### **The Rate Development Process for TSS**

For every scheduled resource scheduled by PTK the TSS rate will be recovered by applying the total PTK budget divided by the annual aMW scheduled by PTK. This will be used to calculate a per MWh charge that will be applied to the customer total planned annual aMW specified and or unspecified resource amounts in Exhibit A section 2.1 (Specified) and or section 3.1.2 (Unspecified) of the power sales contract. If BPA is scheduling a customer's nonfederal resource that is taking Resource Remarketing Service the rate will be based on the planned amounts in section 6 of Exhibit D. This rate will be applied to every scheduled Specified resource and Unspecified resource that the customer has in Exhibit A. This method will achieve a level playing field and recover BPA cost for Tier 2 and the customer's nonfederal deliveries from the total PTK budget and O&M expense from our scheduling system. There will be a price cap put in place. The price cap is triggered when the customer's cost per MWh Rate for the month exceeds the cost of the Monthly Transaction Price Cap. The cost per Transaction Rate will be calculated by taking the number of specified and or unspecified resources that have exceeded the MWh Rate multiplied by the Cost per Transaction Price Cap for each month. If the customer has multiple resources above the cap a transaction fee would apply to each specified and or unspecified resource that is above the cap. (Customer examples below)

### **Formulas**

#### **Per MWh Rate**

(Exhibit A Amount(s))\*(Hours in a month)\*(Cost per MWh Rate) = Monthly Charge

**Transaction Rate**

(Number of Exhibit A Resources that qualify for Transaction Rate)\*(Cost per Transaction Rate) = Monthly Charge

**Data Used for the Customer Examples**

This is an approximation on data that is feed into the Customer examples below. The examples below are using current rate information. The average PTK budget for FY 2010 and 2011 is \$4,968,225 it is divided by the number of months in the 2012:2013 rate period, 24 to get an average cost per month of \$414,019.

<b>PTK Budget</b>	<b>FY10 -Total</b>	<b>FY11 -Total</b>	<b>Rate Period Average</b>	<b>Monthly Average</b>
<b>Total</b>	\$4,894,844	\$5,041,606	\$4,968,225	<b>\$414,019</b>

**Schedule Data**

The Schedule data used for establishing the rate was taken from fiscal year 2008 and 2009. The rate uses the average transactions over that same time period to establish the monthly average of transaction scheduled by PTK. The Transaction is used for the purposes of setting the TSS Cap. There is some risk using just two years however it would take a significant change to change the rate significantly. A bad water year does not have an impact on the number of MWh scheduled or the number of Transaction because of the reduction in Sales is offset from additional purchase transaction which would keep the MW schedules and Transaction constant.

<b>MWh Scheduled</b>	<b>FY08 -Total</b>	<b>FY09- Total</b>	<b>Two Year Average</b>	<b>Monthly Average</b>
	30,762,253	31,554,236	31,158,244	2,596,520
<b>Number of Transaction</b>	<b>FY08 -Total</b>	<b>FY09- Total</b>	<b>Two Year Average</b>	<b>Monthly Average</b>
	156,028	142,443	149,236	12,436

**Cost Per MWh Rate Calculation**

<b>Cost per MWh Rate</b>	Monthly Average MWh Scheduled	<b>2,596,520</b>
	Monthly Average PTK Cost	<b>\$414,019</b>
	<b>Cost Per MWh scheduled</b>	<b>\$ 0.16</b>

## Cost per Transactions Rate Calculation

Transaction Rate Calculation for TSS Cap	Monthly Average Transaction Scheduled	12,436
	Monthly Average PTK Cost	\$414,019
	<b>Monthly Transaction Price Cap</b>	<b>\$ 999</b>

### Customer Examples

This is how the .16 cent TSS Rate will apply to customers the BPA is scheduling using non-Federal resource amounts for all or a portion of their AHWM Load, the customer is Big Bend, Inland and United. This is what those customers' TSS charges associated with non-Federal service should look like on their Power Bill. The .16 cent rate is multiplied by the customer's scheduled nonfederal annual aMW resource amounts and then multiplied by the numbers of hours in the month. The cap is reached once the customer annual aMW resource amounts multiplied by the hourly MW rate exceeds cost per transaction rate, at that point the customer will be billed on a cost per transaction Rate, for this period it is \$999. The Really Fast Growing Cooperative is an example of what Inland Power and Lights or other larger utility would look like in five to ten years. It has a rate that combines multiple Specified resources and an Unspecified resource at the capped rate.

	2012 annual aMW Specified Nonfederal Amounts	2012 annual aMW Unspecified Nonfederal Amounts	2013 annual aMW Specified Nonfederal Amounts	2013 annual aMW Unspecified Nonfederal Amounts	Hours in a Month	Cost Per MWh Schedules				
							FY 2012	FY 2013	FY 2012	FY 2013
<b>Big Bend Electric Cooperative</b> Resource #1		0.43		1.70	744	\$ 0.16	\$ 51.19	\$ 202.61	\$ 51.19	\$ 202.61
<b>Inland Power and Light</b> Resource #1	1.59	0.00	1.59	1.84	744	\$ 0.16	\$ 189.15	\$ 219.03	\$ 189.15	\$ 219.03
<b>United Electric Cooperative</b> Resource #1		2.12	0.00	2.38	744	\$ 0.16	\$ 252.48	\$ 283.20	\$ 252.48	\$ 283.20
<b>Really Fast Growing Cooperative</b> Resource #1	1.68	5.00	1.68	8.50	744	\$ 0.16	\$ 795.19	\$ 999.00	\$ 1,102.31	\$ 1,891.80
Resource #2	2.58		7.50		744	\$ 0.16	\$ 307.12	\$ 892.80		

### Rate Setup for TCMS

TCMS Rate will recover actual cost based on actual congestion events occur along the customer's planned delivery schedule to their load.

BPA will track anytime any time Transmission or Energy Purchased to support a Customers Nonfederal for a planned or unplanned transmission outage, curtailment or congestion event the customer's resource to load. If at anytime BPA can not get the schedule to load due to a Transmission outage event BPA will follow the guidelines for resupplying described in section 4.3.7 of exhibit F.

### **Transmission purchased to support a customer's non-federal**

The Scheduling system will track anytime the customer's resource is not scheduled on the Designated Network Transmission path and will be able to track any additional Point to Point Transmission purchased to deliver the customer's resource to their load due to a curtailment or planned outage. This information will be passed on to Billing.

### **Energy purchased to support a customer's non-federal for a planned or unplanned transmission outage, curtailment or congestion event**

The Scheduling System will track every MWh that Power Services purchases power for support of the customer Nonfederal resource. BPA will apply the amount of MWh curtailed due to a Transmission outage, tag curtailment or congestion event and multiply it by the Dow Jones Mid C Daily Index for that same hour the event occurred. BPA will not issue credits for anytime that the Dow Jones Index is below zero. BPA holds the rights to change this Index in future rate cases. This information will be passed on to Billing.

### **Curtailed Tags that do not get resupplied**

There are many reasons why a tag is curtailed and not resupplied a few reasons follow.

- The tag is curtailed too late into the delivery hour to resupply through market purchase or transmission purchases.
- Transmission is not available on another feasible transmission path.
- A network contract does not allow BPA to move the schedule to another load in real-time

Anytime a tag is curtailed for the customer nonfederal resource and the resource is not scheduled to load. BPA will multiply the amount energy that is not resupplied by the Dow Jones Mid C Daily Index for that same hour the event occurred. BPA will not issue credits for anytime that the Dow Jones Index is below zero. BPA holds the rights to change this Index in future rate cases. This information will be passed on to Billing.

### **NonFirm Network Transmission Reservation Fee**

BPA holds the right in future rate cases to have a fee for customers wheeling Nonfederal Resource on Nonfirm Network or Nonfirm Point to Point to their load. For the 2012 and 2013 this Rate will be at Zero. BPA is estimating the amount of MWh that BPA will be scheduling for the customer's Nonfederal on Nonfirm Transmission to Load will be less than 20 aMW. The 20 aMW will have an insignificant impact on BPA's cost.

### **The same general TCMS method can be applied to BPA's Tier 2 purchases as well**

## 8. Resource Remarketing Service (RRS) for non-Federal Resources Only

**Product Description Summary:** With RRS, BPA will remarket amounts of power from a new customer resource that is in excess to the customer's Above-RHWM load needs during the purchase period this service has been requested.

**Pricing Proposal:** The intent is to pay the purchaser/customer for the forecast annual average amount of generation their resource is expected produce over the amount they need to meet their above-RHWM load using forecast firm Mid-C block price. This price is based on 25 MW flat block HLH and LLH sales. The actual price paid would be the forecast market price less the remarket fee, which would be based on the value added by the service.

- Depending on resource location, there may be a PTP transmission value based component, reflecting the cost of transmitting the resource from the BA where it is located to BPA. BPA PTP transmission and associated losses would be required to transmit the power to Mid-C, the point of sale and forward price forecast point of delivery.
- Associated losses are included in the price.
- Resource support service costs and scheduling costs are not included because they are handled through separate RSS and TSS calculations for the entire resource.
- Odd lot integration cost is included to reflect the fact that if a marketer bought the output at the forecast firm Mid-C price they would need to package it with other resources to achieve the 25 MW flat block value.
- Carbon cost is a placeholder for future reference and is currently valued at zero.
- Operating reserves is included as a placeholder if a future deal requires it. It is currently set at zero.
- Frequency and regulation is included as a placeholder if a future deal requires it. It is currently set at zero.

Note: For an amount of resource that is less than one average megawatt of forecast Above-RHWM load, BPA intends to use the RSC Adjustment to account for the difference between the Above-RHWM load and actual generation of the resource.