Regional Dialogue:
Contracts and Tiered Rate Methodology
Overview
This presentation is intended to be informational only for purposes of understanding Regional Dialogue and Tiered Rate Methodology concepts. This document does not represent final decisions. All final decisions are contained in the following documents:

- Signed Regional Dialogue Contracts
- Tiered Rate Methodology Rate Case Records of Decision (Nov. 08 and Sept 09)
- Contracts Policy ROD
- July 2007 Long-Term Regional Dialogue Policy
- Revised Policy and ROD on Determining Net Requirements under 5b / 9c
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- TRM Basics
- High Water Marks
- Tier 1 Rate Design
- Above-RHWM Service
- Tier 2 Rate Alternatives
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Regional Dialogue Contracts
Where we’ve been

- Signed 20-year (FY 2009 – FY 2028) contracts in December 2008 with 135 public utility customers
- Service under contracts is FY 2012 – FY 2028; early signing gives customers time to make choices and secure new power supplies
- New contacts signed:
  - Load Following: 118
  - Slice/Block: 17
  - No customers selected the Block product.
  - Residential Purchase and Sale Agreement: 3 public + 3-5 IOUs
- Tiered Rate Methodology to be used for Priority Firm (PF) tiered rate design
Contract/Product Options


■ Load Following
  • Provides load-following service from BPA for metered load less non-Federal resources applied to load. Customers can apply their resources in their choice of several pre-defined allowable shapes, or as the resource generates if they agree to purchase resource support services (RSS) from BPA.

■ Block
  • Provides an amount of power to meet a customer’s planned annual net requirement; can be flat or shaped; can be paired with shaping capacity.

■ Slice/Block
  • Provides for the combined sale of two distinct power services for service to a preference customer’s planned net requirement: the Slice Service and the Block Service.

Note: Block and Slice/Block customers agree to follow their loads with their own resources and purchases beyond what their BPA purchase serves.
Customer Resources in the CHWM Contract

- Net Requirement = Total Retail Load – Dedicated Resources
  - Section 5(b) of the NW Power Act: BPA is obligated to sell a customer power (Net Requirements) equal to a customer’s load (Total Retail Load) minus a customer’s resources (Dedicated Resources).

- A Load Following customer’s Net Requirement is actual HOURLY amounts (so BPA needs an hourly accounting of a Load Following customer’s Dedicated Resources).

- A Slice/Block (and just Block) customer’s Net Requirement is planned Monthly/Annual amounts.

- Dedicated Resources
  - Specified Resources (can be Existing Resources and New Resources, the former are resources dedicated prior to October 1, 2006)
    - Generating Resources
    - Contract Resources
    - Small Non-Dispatchable Resources (Load Following Only)
  - Unspecified Resource Amounts (are only New Resources)
CHWM Contract Resource Hierarchy

- **Dedicated Resources**
  - Specified Resources (can be Existing Resources and New Resources, the former are resources dedicated prior to October 1, 2006)
    - Generating Resources
    - Contract Resources
    - Small Non-Dispatchable Resources (Load Following Only)
  - Unspecified Resource Amounts (are only New Resources)

- **Resources Not Dedicated to Load**

- **Consumer-Owned Resources**
  - Consumer-Owned Resources serving Onsite Consumer Load
  - Consumer-Owned Resources NOT serving Onsite Consumer Load
Resource Information in the Contract

- Resources are listed in Exhibit A
- The threshold for a resource to be listed in Exhibit A is having a nameplate capability greater than 200 kW
- In Exhibit A each Dedicated Resource has:
  - a resource profile (for example: nameplate, date resource dedicated to load)
  - monthly/diurnal energy amounts
  - monthly peak amounts (Slice/Block customers currently have blanks for peak amounts)
- In Exhibit A each resource not dedicated to load and Consumer-Owned Resource has:
  - A resource profile
  - Annual average energy amounts
Why Tiered Rates

- Limits the amount of power available at BPA's lowest cost-based Priority Firm rates.
- Protects the value of the Federal Base System.
- Promotes regional infrastructure development.
Overview of Tiered Rates

- TRM changes BPA rate structure from one set of melded rates to multiple levels of rates based on when resources were acquired.
- Melded rates obscured cost to serve load growth by averaging new resource costs with embedded resource costs.
- Tiered rates are designed to give customers more control over their power supply future.
  - Enhance their resource options, new sources compete against each other.
  - Provides better economic price signals.
- Preserves access to low-cost federal power.
- “Pay only to serve your own load growth.”
- Certain Tier 1 rate components are set at marginal cost.
- Individually, Tier 2 rates are cost-based, but marginal going forward.
- Taken together, all rates are cost-based.
Tiered Rate Methodology

- Establishes a two-tiered PF rate design applicable to firm requirements power service for Publics pursuant to CHWM Contracts.
  - Differentiates between the cost of service associated with Tier 1 System Capability (Tier 1 Rates) and the incremental costs associated with amounts of BPA power needed to serve any portion of a Public’s Annual Net Requirement not served at a Tier 1 Rate (Tier 2 Rates).
  - Generally, provides detailed description for calculating Tier 1 rates; provides rate framework for Tier 2 and Resource Support Services with fewer specifics.
- In coordination with BPA’s CHWM Contracts, determines the amount of power each public is eligible to purchase at Tier 1 rates by establishing a High Water Mark (HWM) for each public customer.
- Provides for rates to be set every two years.
TRM continued

- Aspects of TRM are determined outside the rate case:
  - CHWM Process (FY 2011)
    - Contractually tied to TRM-specified procedures
  - Contract Demand Quantity (CDQ)
    - Part of Tier 1 Demand billing determinant
    - Contractually tied to TRM-specified procedures
  - RHWM Process
    - Prior to each rate case beginning with WP-14
High Water Marks versus Net Requirements

- The High Water Mark (HWM), in any of the forms described on the next slide, serves as dividing line between rate treatments.
- The HWM is not a Net Requirement.
  - A customer’s Net Requirement is amount of federal power a customer can purchase from BPA to serve its Total Retail Load less any resources it has dedicated to serve its load with.
  - The federal power delivered to serve a customer’s Net Requirement would be priced at both Tier 1 and Tier 2 rates.
High Water Marks

Under BPA’s Tiered Rate Methodology:

- **A High Water Mark** is a rate construct that sets the amount of federal power that a customer is eligible to purchase from BPA at Tier 1 rates, subject to its Net Requirement.

- **Contract High Water Marks** (CHWM) provide a one-time benchmark that goes into a customer’s contract and will not change except in special limited circumstances.

- The **Rate Period High Water Mark** (RHWM) is calculated prior to each rate case in the RHWM Process. This process “adjusts” the CHWM amount for any changes in the RHWM Tier 1 System Capability (TT1SC) to obtain the RHWM.

- The **RHWM Process** also provides inputs for the rate case, including RHWM Augmentation, RHWM Tier 1 Firm Critical Output, Above-RHWM (AHWM) load and other information needed to forecast billing determinants.
Contract High Water Marks

- Done once in FY 2011 and memorialized in CHWM Contract
- CHWMs are determined in TRM-specified processes (TRM Chap 4) outside of rate cases, the results of which are subject to dispute resolution (TRM Chap 13).
- Sets the beginning amount of power available to each customer at Tier 1 rates
  - Based on FY 2010 Measured Load
  - Total Measured Loads are scaled to the Tier 1 resources expected to be available in FY 2012-2013 plus a limited amount of augmentation
  - Adjustments for FY 2007-2010 conservation and load lost during the FY 2008-2010 economic downturn
- Not subject to change except if a customer gains or loses service territory
- Provisions to allow new public customers to gain a CHWM based on ratio of existing customers’ loads and CHWMs
- Exception allowed more CHWM for expansion of DOE load at Richland (nuclear waste vitrification project)
CHWM Provisional Load Amounts

- Due to load loss from the economic downturn, some customers believed that their FY 2010 TRL would not be representative of their normal load service due to the unequal impacts on customers. They were concerned that, relative to other customers, they would receive a lower CHWM for the entire contract term and have a higher exposure to Tier 2 rates (or additional non-federal resources if they self-supply) than they would have had otherwise when load returns after FY 2010.

- Customers have three options to choose from for the load basis to be used in determining their CHWM calculation:
  - Path 1: Measured FY 2010 Load, with an adjustment for specific load loss that meets the materiality criteria;
  - Path 2: average Adjusted FY 2007-2008 TRL (adjusted for conservation and abnormal weather, and net of NLSLs), or;
  - Default: Measured FY 2010 Load (adjusted for conservation). (By definition, it is already adjusted for weather and net of NLSLs).

- Provisional CHWMs will be made permanent CHWM if the lost loads return by the end of FY 2013; otherwise the Provisional CHWMs are removed.
CHWM Development Process Diagram

*Note: The defined terms Eligible Load and CHWM include provisional amounts.*
Provisional Load Amounts: Calculating and Verifying

- **Calculating CHWMs:** The Provisional Load adjustment will be added to and included in the customer’s Eligible Load. This Eligible Load will then be scaled to the Tier 1 System Capability and adjusted for conservation to get the customer’s CHWM.

- **Provisional CHWM:** The Provisional CHWM portion of the calculated CHWM will be in the same proportion that the Provisional Load adjustment contributes to the Eligible Load.

- **Turning Provisional CHWM to Permanent:** In FY 2014, BPA will test to see whether the projected load amounts that the provisional load was based on actually returned through FY 2013. At that time Provisional CHWM amounts would converted to permanent CHWMs, but only based on the amount of load that actually returned. Such adjustments cannot exceed the full amount of the Provisional CHWM.
Provisional Load Amounts: Paths 1 and 2

- **Path 2** will be addressed first because of its simplicity.
- **Path 2 - General Load Loss Adjustment:** If a customer’s average Adjusted FY 2007-2008 Load exceeds its Adjusted FY 2010 Load, the customer would be eligible for a load loss adjustments to its Measured FY 2010 Load in the amount of the difference.
- **Adjusted FY 20__ Load:** a customer’s Measured FY 20__ Load adjusted for conservation.
- **Measured FY 20__ Load:** A customer’s measured retail load, net of NLSLs, and adjusted for meter error, anomalies, and abnormal weather.
Path 2: General Load Loss

Customer Provides Data By: 3/31/2010

Adjusted Avg. FY 2007-2008 Load minus Adjusted FY 2010 Load

The difference, if positive

Note:

Adjusted Load = Measured Load adjusted for conservation.

Measured Load = Measured TRL net of NLSLs, adjusted for meter errors, anomalies, and abnormal weather per TRM 4.1.4
Provisional Load Amounts: Paths 1 and 2 under TRM 4.1.3.1

- **Path 1 - Specific Load Loss Adjustment:** A customer may request a load loss adjustment to its Measured FY 2010 Load for a load loss that occurs in FY 2009-FY 2010:
  - **Path 1(a):** Due to a discrete event, if the load loss is at least 10 aMW or results in a decrease of 10% of its Measured FY 2010 Load; or
  - **Path 1(b):** From a specific consumer load, for any reason, if the load loss is at least 5 aMW or results in a decrease of 10% of the customer’s Measured FY 2010 Load.

- **Adjustment Basis:** BPA will generally measure the load loss against the FY 2007-2009 average for the specific load but will have the discretion to consider something other than the average during those years, up to the highest 12 month average during those years.

- **BPA’s Discretion:** Decisions in exercising, or choosing not to exercise such discretion will not be subject to any form of dispute resolution under the TRM or the CHWM Contract.
Path 1: Specific Load Loss

- **Path 1 (a)**: Load Loss Occurring in FY 2009-2010
  - **Multiple Loads**
  - **Yes**: Use Path 1(b) for a qualifying loss to a single load.
  - **No**: Path 1 (a) stops.

- **Path 1 (b)**: Single Load
  - **Material Load Loss?**
    - **Yes**: PROVISIONAL LOAD ADJUSTMENT
      - Adjust to match:
        - FY 2007-2009 average load
        - At BPA’s discretion, the highest consecutive 12 months of load in FY 2007-2009
    - **No**: Material Load Loss? stops.

- **Material Load Loss?**
  - **Yes**: 
    - ≥ 10 aMW
    - ≥ 10% decrease in Measured FY 2010 Load
  - **No**: ≥ 5 aMW or ≥ 10% decrease in Measured FY 2010 Load stops.

- **Customer submits needed data by 1/31/2011**

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Pre-Decisional

Slide 22
Provisional Load Adjustments
Schedule Overview

FY 2010:

- Jan. 31 - Customers requested to either verify the FY 2007 and 2008 raw total retail load data or identify issues. **Path 2**
- March 16 - BPA issues adjusted (weather normalized and conservation adjusted) FY 2007 and FY 2008 load data for verification. **Path 2**
- March 31 - Deadline for customers to provide all necessary data to determine a provisional load adjustment under **Path 2**.
- Sept. 30 - BPA publishes customers’ final adjusted FY 2007–08 load data. **Path 2**

FY 2011:

- Jan. 31 - Deadline for customers to provide all necessary data to determine a provisional load adjustment under **Path 1**.
- February - BPA publishes adjusted FY 2010 load data and customers’ available provisional load adjustment under **Path 2**.
- March - BPA publishes FY 2010 load data and customers’ available provisional load adjustment under **Path 1**.
- April – Within 30 days following publication of data for the adjustment paths, customers notify BPA under which adjustment path their provisional load will be calculated.
Rate Period High Water Marks

- RHWMs are determined in TRM-specified processes (TRM Chap 4) outside of rate cases, the results of which are subject to dispute resolution (TRM Chap 13).
- RHWM is a rate construct that determine billing determinants.
- A customer cannot buy more power than its Net Requirement, regardless of its RHWM.
- For the WP-12 rate period, each customer’s CHWM will be used as its RHWM.
- Beginning with the WP-14 rate period, a RHWM Process will be conducted every two years in which all CHWMs are scaled up or down for changes in the Tier 1 System Firm Critical Output (T1SFCO) as used in determining RHWM Tier 1 System Capability (RT1SC).
- T1SFCO may be augmented to serve as much CHWM as possible, except that the amount of augmentation included in the CHWM calculation serves as a limit to future Tier 1 augmentation.
- RHWM Process determines each customer’s RHWM, Above-RHWM Load, T1SFCO, RT1SC, RT1SC System Shape, and forecast TOCAs.
New Publics Access to Tier 1

Cap on eligible aMW
- 250 aMW of Load @ Tier 1 Price for Contract Length

Rate Case Limit on Tier 1 for New Publics
- 50 aMW (per 2 yr Rate Periods)

Phasing
- No phasing for first 5 utilities <10 aMW
- Formula for utilities ≥ 10 aMW over Rate Periods
How is Contract High Water Mark Established for New Publics?

- **CHWM if from Investor Owned Utility Service Area**
  - \( NR \times \left(\frac{(e)CHWM}{(e)NR}\right) = CHWM \)
  - Remainder @ Tier 2 or Non-Federal

- **If formed out of existing Public**
  - If unable to agree, BPA will calculate based on New Publics’ share of TRL – any resources or NLSL
  - Amount of CHWM from Public does not count towards 250 aMWV Cap

- **Rate Period High Water Mark**
  - Maximum planned amount of Tier 1 available each Rate Period for a customer to purchase.
Tribal & Utilities < 10 aMW

- New Tribal Utilities - 40 aMW Load Growth
- 40 aMW does not count towards the 50 aMW limit per rate period, but does count towards the 250 aMW limit for all New Publics.
- 40 aMW exception ends 2021 or when the 250 aMW limit is reached
- First 5 utilities < 10 aMW notice period is 2 years prior to start of next rate period.
- Rest must give notice 3 years prior to start of next rate period.
CHWM/RHWM Summary

- CHWMs and RHWMs are determined in TRM-specified processes (TRM Chap 4) outside of rate cases, the results of which are subject to dispute resolution (TRM Chap 13).
- CHWM/RHWMs are rate constructs that determine billing determinants. A CHWM is a benchmark eligibility to purchase federal power at Tier 1 rates.
- A customer cannot buy more power than its Net Requirement, regardless of its CHWM/RHWM.
- For the WP-12 rate period, each customer’s CHWM will be used as its RHWM.
- Beginning with the WP-14 rate period, a RHWM Process will be conducted in which CHWMs are adjusted before each rate period for changes in the Tier 1 System Firm Critical Output (T1SFCO) - the results are RHWMs.
- Consistent with the TRM, Provisional CHWMs will be provided for certain specific or general FY 2010 load loss and will be adjusted in FY 2014 to the amount of associated lost load that returned through FY 2013. A customer’s retained Provisional CHWM amount will become permanent CHWM.
- The sum of customers’ CHWMs and initial Provisional CHWMs will be used to determine the Augmentation Limit for entire contract term. It will not change after Provisional CHWMs are adjusted in FY 2014.
- The TRM provides for additional CHWMs over the term of the contracts for new public utilities, including new tribal utilities. Augmentation is added for additional CHWMs.
Tier 1 Rate Design

- The TRM Cost Allocation Table will guide the allocation of costs among the tiered cost pools: Tier 1 Composite, Tier 1 Slice, Tier 1 Non-Slice and various Tier 2 pools. The allocation of costs among the pools will form the basis for setting rates for firm requirements sales to PF customers.

- Tier 1 rate design is detailed in the TRM (Chapter 5). The rate design was a product of negotiations between BPA staff and customer representatives.

- **Customer Charges:** Based on a percentage of revenue requirement (similar to today’s Slice rate)
  - **Composite Customer Charge:** Collects the majority of the Tier 1 revenue requirement and is applicable to Slice, Block and Load Following products. Will be billed based on a customer’s Tier 1 Cost Allocator (TOCA) (i.e., each customer’s percentage of the Tier 1 system costs for the rate period).

  - **Slice Customer Charge:** Collects costs (e.g., Slice customer requested software modifications) or returns credits (likely a small or zero rate). Will be billed based on a customer’s Slice %.

  - **Non-Slice Customer Charge:** Collects costs or returns credits specific to non-Slice products (e.g., surplus sale revenue credit, risk, etc.) Likely will be negative. Will be billed based on a customer’s non-Slice TOCA.
Tier 1 Charges continued

- **Load Shaping Charge:**
  Compares a customer’s load to the monthly diurnal critical output of the Tier 1 System and charges or credits at a posted forecast market price (determined in the rate case).

- **Demand Charge:**
  Charges for peak use above an adjusted monthly average HLH energy take. Rate is based on the fixed capital cost of the most economic capacity resource.
  - Billed on Customer System Peak minus: Tier 2 or non-Federal resource amounts; aHLH Tier 1 Energy; and the customer-specific Contract Demand Quantity (CDQ).
  - CDQ is essentially a grandfathered demand that is calculated based on a combination of historical information (FY 2005-2007) and FY2010 loads.
  - Customers are grandfathered approximately 91% of their historical demand to provide incentive to lower their peak by providing a marginal price signal on an incremental component of demand.
  - The CDQs are calculated outside of the rate process and will be contractually specified and fixed (each customer will have 12 monthly values for the duration of the contract).
Customer Tier 1 Cost Allocator (TOCA)

- Customer Tier 1 Cost Allocator (TOCA) - will be based on each customer’s minimum of their forecast Net Requirement (Netreq) and their Rate Period HWM (RHWM) divided by the aggregate RHWM.

\[ TOCA = \frac{\min[RHWM, Netreq]}{\sum RHWM} \]

- In simple terms, TOCA is each customer’s percentage of the Tier 1 system costs for the rate period.

- Example:
  - 10.639 aMW RHWM
  - 7107.419 Sum of aMW RHWM
  - TOCA = .0014969 or .14969%
Chart Comparing Tier 1 Revenue Requirement & Revenues by Product
Illustrative purposes only. Line by line cost allocation available in chapter 4 of the TRM.

<table>
<thead>
<tr>
<th>BPA's Tier 1 Revenue Requirement</th>
<th>Composite Customer Rate (Applied to Block, Load Following &amp; Slice Products)</th>
<th>Non-Slice Customer Rate (Applied to Block &amp; Load Following Products)</th>
<th>Net Non-Slice Customer Charge (Applied to Block &amp; Load Following Products)</th>
<th>Slice Customer Rate (Slice Product)</th>
<th>Net Slice Customer Charge (Applied to Slice Product)</th>
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Load Shaping Charge

- **Load Shaping Charge** – Compares a customer’s load to the critical output of the FBS and charges or credits based on buys and sells at a forecast price.
  - **Step 1:** Each Rate Case, the critical output of the FBS will be determined in monthly diurnal amounts.
  - **Step 2:** Each Rate Case, BPA will post 24 market forecast energy prices.
  - **Step 3:** Each month, a customer’s TOCA is multiplied by the corresponding diurnal value calculated in Step 1 and subtracted from the customer’s actual energy use (less Tier 2) for that same monthly diurnal period. This difference will be the billing determinant that is applied to the energy prices in Step 2. This could be a negative or positive billing determinant.
**Load Shaping Charge**

**Note:** BPA does not intend to credit or charge a customer at a forecast market rate for energy that was or should have been purchased from BPA at its Tier 1 rate. Therefore, an end-of-year check (Load Shaping Charge true-up) will be made to ensure that this does not occur.

**October HLH Example:**
- TOCA = .0014969
- Oct Critical = 3,543,617,448
- Actual Load = 3,963,968
- Tier 2 = 655,344
- System Shaped Load = 5,304,441
- Billing Determinant = -1,995,817
- Oct rate = $0.04032/kWh

<table>
<thead>
<tr>
<th>Applicable Months</th>
<th>HLH kWh</th>
<th>LLH kWh</th>
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<tbody>
<tr>
<td>October</td>
<td>3,543,617,448</td>
<td>1,825,929,138</td>
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<tr>
<td>November</td>
<td>3,618,895,699</td>
<td>1,973,981,871</td>
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<tr>
<td>December</td>
<td>3,897,175,365</td>
<td>2,200,346,763</td>
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<td>January</td>
<td>2,665,352,858</td>
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<td>February</td>
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<td>March</td>
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<td>September</td>
<td>2,570,124,770</td>
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<table>
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<th>Applicable Months</th>
<th>HLH Rate</th>
<th>LLH Rate</th>
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<tr>
<td>October</td>
<td>40.32</td>
<td>34.12</td>
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<td>June</td>
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<td>July</td>
<td>42.11</td>
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<tr>
<td>August</td>
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<td>39.66</td>
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<tr>
<td>September</td>
<td>46.09</td>
<td>40.76</td>
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CDQ Calculation

- **Step 1**: 2005-07 Average CSP - For each month of the year, sum the largest hourly take from BPA for years 2005-2007 and divide by three.
- **Step 2**: For each month of the year, sum the total HLH energy take for years 2005-2007 and divide by three.
- **Step 3**: Calculate 12 monthly HLH load factor by dividing the monthly value in Step 2 by the corresponding monthly value in step 1.
- **Step 4**: Divide the monthly HLH load factors calculated in Step 3 by 91%.
- **Step 5**: Divide 2010 normalized loads (average HLH energy use) by the load factor calculated in Step 4.
- **Step 6**: Subtract the same 2010 average HLH energy used in Step 5 from the answer calculated in Step 5.
- **Step 7**: The monthly CDQ equals the max of zero or the value calculated in step 6 for each month.

**October example:**
- October 2005-07 Average CSP = 10,409
- October 2005-07 aHLH = 8,327
- October average HLH Load Factor = 80.00%
- Adjusted October average HLH Load Factor = 87.91%
- 2010 normalized October average HLH = 8,327
- \( CDQ = \max(0, (8,327 / 87.91\% - 8,327)) = 1,145 \)
Demand Charge

- **Monthly billing determinant (see graphic on following slide)**
  - Step 1: Obtain measured CSP
  - Step 2: Obtain month aHLH Tier 1 energy purchase
  - Step 3: Obtain Contract Demand Quantity from contract.
  - Step 4: Subtract Step 2 and Step 3 from Step 1 to obtain monthly billing determinant (negative billing determinants will be set to zero).

- **Example:**
  - CSP = 11,926
  - Tier 2 = 1,517
  - aHLH Tier 1 = 7,659
  - CDQ = 1,145
  - Billing determinant = 11,926 – 1,517 – 7,659 – 1,145 = 1,605

\[
\text{MonthlyBD} = \text{CSP} - \text{Tier2} - \text{aHLH Tier1} - \text{CDQ}
\]
Determining Demand Billing Determinant

- **Tier 1 aHLH Energy Reduction**: 7,659 kW
- **CDQ Reduction**: 1,145 kW
- **Tier 2 &/or non-Federal Block Reduction**: 1,517 kW
- **CSP**: 11,926 kW
- **Demand Billing Determinant**: 1,605 kW
### October Tiered Rate Bill

<table>
<thead>
<tr>
<th>Sched</th>
<th>Service Descriptor</th>
<th>Quantity</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Tier 1</td>
<td>Composite Charge</td>
<td>0.14969</td>
<td>1% @</td>
<td>1,962,525</td>
<td>$293,770</td>
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<tr>
<td>Tier 1</td>
<td>Non-Slice Charge</td>
<td>0.14969</td>
<td>1% @</td>
<td>-537,036</td>
<td>$(80,389)</td>
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<td>Tier 1 + 2</td>
<td>Energy HLH</td>
<td>3,963,968</td>
<td>kWh @</td>
<td>0.04032</td>
<td>$(80,471)</td>
</tr>
<tr>
<td>Tier 2</td>
<td>Energy HLH</td>
<td>-655,344</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tier 1</td>
<td>Energy HLH</td>
<td>3,308,624</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tier 1</td>
<td>Energy LLH</td>
<td>2,816,987</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tier 1</td>
<td>LLH SSL</td>
<td>2,733,233</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tier 1</td>
<td>LLH Load Shaping</td>
<td>-1,995,817</td>
<td>kWh @</td>
<td>0.04032</td>
<td>$(80,471)</td>
</tr>
<tr>
<td>Tier 1 + 2</td>
<td>Energy LLH</td>
<td>3,290,291</td>
<td>kWh @</td>
<td>0.03412</td>
<td>$2,858</td>
</tr>
<tr>
<td>Tier 2</td>
<td>Energy LLH</td>
<td>-473,304</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tier 1</td>
<td>Demand Charge</td>
<td>1,605</td>
<td>kW @</td>
<td>8.14</td>
<td>$13,066</td>
</tr>
<tr>
<td>Tier 1</td>
<td>CDQ</td>
<td>-1,145</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tier 2</td>
<td>Flat Block (per hour)</td>
<td>11,926</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tier 2</td>
<td>Flat Block</td>
<td>1,128,648</td>
<td>kWh @</td>
<td>0.05048</td>
<td>$56,974</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$205,808</td>
</tr>
</tbody>
</table>

### October Current Billing (WP-10)

<table>
<thead>
<tr>
<th>Sched</th>
<th>Service Descriptor</th>
<th>Quantity</th>
<th>Unit</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF-10</td>
<td>HLH Energy</td>
<td>3,963,968</td>
<td>kWh @</td>
<td>0.03141</td>
<td>$124,508</td>
</tr>
<tr>
<td>PF-10</td>
<td>LLH Energy</td>
<td>3,290,291</td>
<td>kWh @</td>
<td>0.02301</td>
<td>$75,710</td>
</tr>
<tr>
<td>PF-10</td>
<td>Demand</td>
<td>10,733</td>
<td>kW @</td>
<td>2.05</td>
<td>$22,003</td>
</tr>
<tr>
<td>PF-10</td>
<td>Load Variance</td>
<td>7,254,259</td>
<td>kWh @</td>
<td>0.00049</td>
<td>$3,555</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$225,776</td>
</tr>
</tbody>
</table>

### TRM October Rate Schedule

- Composite ($ per 1%) = 1,962,525
- Non-Slice ($ per 1%) = -537,036
- T1SR HLH Gen (kWh) = 3,543,617,448
- LS HLH (mills/kWh) = 40.32
- Tier 2 Flat Block (per hour) = 0.05048
- Tier 1 Load Variance (mills/kWh) = 0.00049
- Load Shaping (LS) billing determinant is calculated by subtracting SSL from Tier 1 energy.
- Contract Demand Quantity is found in contract.

### WP-10 October Rate Schedule

- HLH Energy (mills/kWh) = 31.41
- LLH Energy (mills/kWh) = 23.01
- Demand ($/kW-mo) = 2.05
- Load Variance (mills/kWh) = 0.49

---

*For Regional Dialogue Discussion Purposes Only - Pre-Decisional*
Tier 1 Rate Design Summary: Key Points

- **Rates completely redone** - Today’s current rate design consists of monthly/diurnal energy and monthly demand rates, and a load variance rate. TRM introduces a set of very different customer rates, a much different basis for monthly demand rates, and monthly/diurnal load shaping rates.

- **Pay attention to cash flow** - While the customer charges collect the vast majority of BPA’s revenue requirement and are by default flat across the year, the load shaping charge will shape the customer payments through the year.

- **CDQs not final until 2011** - Determination of historical load factors for use in calculating a utility’s CDQ is complete, but actual CDQs cannot be calculated until CHWMs are final (FY2011).

- **Reducing your peak is valuable** - The combination of a more potent demand rate (more than four times larger than today but applied to a much smaller portion of load) and a load based on the customer’s peak load can result in significant savings from demand-side management programs.

- **This all goes live October 1, 2011**
Above-RHWM Options

Customers have four options for serving Above-RHWM Load:

1) Non-Federal Resource (Specified or Unspecified)
2) BPA Flat Block Purchase at a Tier 2 rate
3) Combination of the two above
4) The Load Shaping rate for Above-RHWM load below 1 aMW

On Nov 1, 2009, customers made their elections for how they will serve their Above-RHWM Load during the FY 2012-2014 purchase period; the FY 2012-2013 Above-RHWM Load amounts were established before these elections. Future elections will be made before Above-RHWM quantities are known.

Above-RHWM load election dates

<table>
<thead>
<tr>
<th>Notice Deadline</th>
<th>Purchase Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 1, 2009</td>
<td>FY 2012 – FY 2014</td>
</tr>
<tr>
<td>September 30, 2011</td>
<td>FY 2015 – FY 2019</td>
</tr>
<tr>
<td>September 30, 2016</td>
<td>FY 2020 – FY 2024</td>
</tr>
<tr>
<td>September 30, 2021</td>
<td>FY 2025 – FY 2028</td>
</tr>
</tbody>
</table>
Tier 2 Rate Alternatives

- Tier 2 rates will be established in 7(i) processes.
- Tier 2 rate alternatives will be based on the cost (actual or forecast) of providing a flat annual block of power.
- Pricing of power provided at a Tier 2 rate is based on the cost of BPA purchases and resource acquisitions to serve this load.
- Other cost components that may be included in Tier 2 rates:
  - BPA Overhead Costs – associated with power provided at Tier 2 Rates
  - Resource Support Services (RSS) – for the cost of RSS products needed to convert a resource/purchase into a flat block of energy
  - Additional costs, as appropriate, including risk-related costs, transmission costs, Balancing Authority costs for within-hour balancing, fuel adjustment adders, etc.
Tier 2 Rate Alternatives

Load Growth Rate

- BPA commits to meet Load Following customers’ load growth placed on BPA for the term of the commitment period – although when giving notice to purchase at the Load Growth rate the customer may establish set amounts of Above-RHWM load to be served by non-Federal resources or other Tier 2 rate alternatives for the contract term.


- Customers have a diversification right to limit the amount of power they purchase at the Load Growth rate in future years with notice provided by October 31 of rate case year (11 months before the rate period) and with possible liquidated damages.

- Customers choosing to purchase 100% of their Above–RHWM load service at the Load Growth Rate may elect the Shared Rate Plan. No customers elected this option at the first notice deadline.
Tier 2 Rate Alternatives continued

**Short-term Rate**

- Shorter commitment with terms of 3, 5, 5 & 4 years with pricing based on market opportunities. Notice deadlines and purchase periods are the same as those listed for Above-RHWM load elections.

- BPA will recalculate amounts charged to Load Following customers at the Short-term Rate prior to every rate case for the subsequent rate period. Slice/Block customers must elect how much service they wish to receive at the Short-term Rate, for every year of a purchase period, when electing this service.

- Service at this rate may be converted to service at a Vintage rate.

- Customer has right to reduce purchase amounts with notice provided by October 31 of rate case year and possible liquidated damages.
Tier 2 Rate Alternatives continued

Vintage Rate

- Term of commitment dependent on term of intended BPA resource acquisition or power purchase.
- A Vintage rate alternative Statement of Intent may be available any time based on customer need and interest and BPA’s need to acquire a resource(s).
- To ensure that Tier 2 costs do not affect Tier 1 rates, customers will have to give BPA a binding commitment (with a Statement of Intent) to take service at a Tier 2 rate that recovers such costs before BPA will finalize the purchase commitment for a resource or for power.
- BPA will work with customers to understand their needs and interests for Vintage rate alternatives.
## Summary of Tier 2 Alternatives

<table>
<thead>
<tr>
<th>Tier 2 Alternative (Customer commitment)</th>
<th>Potential Resources Allocated to Tier 2 Rate Pool (Will evolve over time as we get more information about available resources and customer needs and interests)</th>
<th>RECs Provided?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Growth (14 or 17 yrs)</td>
<td>A mix of short &amp; long term purchases (in no particular order, examples could include, Renewables, CCCT, Waste Energy Gen, Market Purchases). Resource selection primarily driven by lowest life cycle cost.</td>
<td>Potential that some level of RECs could be provided over the course of the contract.</td>
</tr>
<tr>
<td>Short-Term (3-5 yrs)</td>
<td>Short-Term market purchases (5 years or less in duration). Purchases driven by lowest cost market opportunities.</td>
<td>Unlikely</td>
</tr>
</tbody>
</table>
**First Purchase Period A-HVM Election Summary**

103 Load Following customers, 17 slice customers

LGR = Load Growth Rate
STR = Short-Term Rate
LSR = Load Shaping Rate

<table>
<thead>
<tr>
<th></th>
<th>Load (in aMW)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2013</td>
<td>2014^2</td>
</tr>
<tr>
<td><strong>Load Growth Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41 customers</td>
<td>0.0</td>
<td>2.7</td>
<td>6.6</td>
</tr>
<tr>
<td></td>
<td>(2 cust)</td>
<td></td>
<td>(4 cust)</td>
</tr>
<tr>
<td><strong>Short Term Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 customers^3</td>
<td>21.1</td>
<td>53.9</td>
<td>39.0</td>
</tr>
<tr>
<td></td>
<td>(6 cust)</td>
<td>(10 cust)</td>
<td>(14 cust)</td>
</tr>
<tr>
<td><strong>Non-Federal Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 customers opting no Tier 2^2</td>
<td>14.4</td>
<td>25.9</td>
<td>80.0</td>
</tr>
<tr>
<td></td>
<td>(11 cust)</td>
<td>(11 cust)</td>
<td>(11 cust)</td>
</tr>
<tr>
<td><strong>Load Shaping Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aMW totals include customers electing LGR, STR or non-federal resources with &lt;8760 MWh of A-HWM load (including no A-HWM load).^5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.6</td>
<td>12.1</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>(86 cust)</td>
<td>(80 cust)</td>
<td>(74 cust)</td>
</tr>
<tr>
<td><strong>Slice</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Short Term Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 customers opting for 1 aMW each under the STR in 2014</td>
<td>-</td>
<td>-</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Non-Federal Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>102.7</td>
<td>174.3</td>
<td>242.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Load Growth Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>2.7</td>
<td>6.6</td>
</tr>
<tr>
<td></td>
<td>(0%)</td>
<td>(1%)</td>
<td>(2%)</td>
</tr>
<tr>
<td><strong>Short Term Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21.1</td>
<td>53.9</td>
<td>41.0</td>
</tr>
<tr>
<td></td>
<td>(15%)</td>
<td>(20%)</td>
<td>(11%)</td>
</tr>
<tr>
<td><strong>Non-Federal Resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>117.1</td>
<td>200.2</td>
<td>322.6</td>
</tr>
<tr>
<td></td>
<td>(81%)</td>
<td>(74%)</td>
<td>(84%)</td>
</tr>
<tr>
<td><strong>Load Shaping Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.6</td>
<td>12.1</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>(4%)</td>
<td>(5%)</td>
<td>(4%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>144</td>
<td>269</td>
<td>385</td>
</tr>
</tbody>
</table>

**Notes**

1. For purposes of customer totals, PNGC’s 14 members are counted as one.
2. Based on best estimates of A-HWM load for FY14. Actual A-RHWM load for FY14 shall be calculated prior to WP-14 as per the TRM.
3. Includes 1 opting for Partial LGR
4. Includes several who are combining the STR with non-federal resources
5. Includes 11 serving A-HWM load <8760 MWh with non-federal resources. (Note the aMW totals include the non-federal load service from those customers electing partial LGR or STR.)
6. Once A-HWM load grows to be >8760 MWh, load service will be at LGR, STR, or from non-federal resources depending on customer election. Also, includes 8 Federal Agency customers.
7. Based on the percentage of total A-HWM load.
Tier 2 Summary: Key Points

- BPA’s Tier 2 rate service encompasses a portion of customers’ planned load service above their RHWM and will be provided at the marginal cost of serving that load.
- Because Tier 2 rate service is provided at the marginal cost of such service BPA will be providing customers with a significant price signal to develop their own resources and encourage energy efficiency.
- BPA will price its Tier 2 rate service every two years in a section 7(i) rate setting procedure.
Resource Support Services

- What are Resource Support Services?
  - Resource Support Services (RSS) is the suite of services that allows a customer to apply the actual, variable output of a Specified Resource to its load without making other BPA customers better or worse off and without having to guarantee a specific scheduled shape of resource.
  
  These services are important because customers are expected to develop a variety of resources during the term of the Regional Dialogue contracts. Some of these resources will have characteristics that reduce the amount of load BPA would otherwise serve in higher value times (e.g., winter HLH) while others may reduce the amount of load BPA must serve in lower value times (e.g., spring LLH).
  
  These products succeed in converting a highly variable resource like wind into a reliable, baseload resource, with minimal action required by the customer taking these services. This is a premium and valuable package of products.
What services make up RSS

- **Diurnal Flattening Service (DFS)** - a service that makes a resource that is variable or intermittent, or that portion of such resource that is variable or intermittent, equivalent to a resource that is flat within each Monthly/Diurnal period. DFS is combined with the Resource Shaping Charge to benchmark against a flat annual block of power.

  For example, the DFS can convert the output of a highly variable and unpredictable resource that provides little dependable capacity into a firm block by firming and reshaping the energy and adding firm capacity.

- DFS provides hour-to-hour support and generally is not within-hour support. Either the Balancing Authority where the resource is located or the customer provides this support through integration charges and generation imbalance charges. A possible exception in the future could occur with DSO-216 within-hour transmission curtailments to wind resources in the BPA BA serving customer load, should this standing order continue.
What about the Resource Shaping Charge

The Resource Shaping Charge is not a service, but rather a credit or charge that adjusts for the difference in value between a resource shape that is flat within each Monthly/Diurnal period (but not necessarily flat when comparing one Monthly/Diurnal period to another) and an equivalently-sized flat annual block (flat for all hours of the Fiscal Year). This is calculated before the rate period and fixed. It applies both when a customer is taking DFS and when a Load Following customer commits to apply a non-Federal resource in a shape that is not a flat annual block.

![Planned Diurnal Flat Generation](3 month year)

![Planned Annual Flat Generation](3 month year)
Resource Shaping Charge

- The Resource Shaping Charge is applied to:
  - Load Following customer’s New Resources (resources dedicated to load after September 30, 2006); and/or
  - Any resource receiving the Diurnal Flattening Service

- The point of the Resource Shaping Charge is to financially credit or charge for the value difference between a Monthly/Diurnal flat resource and a flat annual block (a flat annual block is the equity benchmark shape as determined through the Regional Dialogue).

- The market forecast rates used to determine the Resource Shaping Charge are proposed in the TRM to be equal to those used to calculate the Load Shaping Charge. This is important because it effectively means a Load Following customer is financially indifferent between applying the Resource Shaping Rates to the resource or applying the Load Shaping Rates to the net load.
The Resource Shaping Charge Adjustment is a very simple end-of-month energy adjustment that ensures neutrality between the forecast and actual generation. The Resource Shaping Charge Adjustment is not a penalty rate and is calculated using the exact same rates used for calculating the Resource Shaping Charge. This will only be applied to resources receiving the DFS.
Resource Shaping Charge Adjustment

- Unlike Unauthorized Increase (UIA), the Resource Shaping Charge Adjustment is not a penalty rate, it simply adjusts for generation forecast error.
- Is calculated using the same posted forecast market rates that were used when calculating the Resource Shaping Charge.
- Calculated each month based on that month’s actual generation relative to the planned amounts.
- Energy in excess of expected amount will be credited at the forecast market prices used for the Resource Shaping Charge.
- Energy amounts below expected generation will be charged at the forecast market prices used for the Resource Shaping Charge.
What services make up RSS...continued

- **Forced Outage Reserves Service (FORS)** – a service that provides an agreed-to amount of capacity and energy to load during forced outages of a qualifying resource.
- **Secondary Crediting Service (SCS)** – a service that provides a monetary credit for the secondary output from an Existing Resource that has a firm critical energy component and a secondary energy component. This is primarily intended to replace the Service and Exchange arrangement currently in place for several Load Following customers.

What are the services related to RSS

- **Grandfathered Generation Management Service (GMS)** – a service that provides a monetary credit for the secondary output from an Existing Resource that has a firm critical energy component and a secondary energy component. BPA also provides forced outage energy when necessary. This service is carried forward from the Subscription contract for three customers’ hydro resources.
What are the services related to RSS…continued

- Transmission Scheduling Service (TSS) – 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.

- Transmission Curtailment Management Service (TCMS) – a service that is now to be included as a feature of the Transmission Scheduling Service (TSS) provided under the load following contract, for customers with Network Transmission contracts. BPA will provide replacement power or replacement transmission scheduling for a qualifying resource when a transmission curtailment or outage occurs between such resource and the customer’s load due to a transmission congestion event.

- Resource Remarketing Service (RRS) - will be offered through the Firm Power Products and Services (FPS) rate schedule and will be considered and negotiated on a case-by-case basis. It is not an RSS per se but is a related product. The Resource Remarketing Service is designed to help customers manage the “lumpiness” of acquiring resources that are larger than their Above-RHWM load. Customers will receive credits for the excess power until their load growth catches up to the size of the resources purchased.
Who is eligible to purchase RSS

Load Following Customers:
- DFS and FORS will be available to support all Specified Resources’ non-dispatchable generation variations.
- SCS will be available to support Specified Resources that are Existing Resources (dedicated to load prior to October 1, 2006) and Hydro Resources.
- Grandfathered GMS will be available to support Specified Resources that are Existing Resources (dedicated to load prior to October 1, 2006); hydro-based; and receiving GMS under Subscription.
- TCMS will be provided as part of TSS to support qualifying Specified Resources and qualifying resources that are applied to meet customer resource obligations for Unspecified Resource Amounts. What constitutes a “qualifying resource” is codified in the Revised Exhibit F TSS provisions.
Who is eligible to purchase RSS continued

- **Block and Slice/Block Customers:**
  - DFS and FORS will be available to support Specified Resources that are renewable resources and are New Resources (dedicated to load after September 30, 2006).
  - SCS and TCMS will not be provided as a requirements service to support Block and Slice/Block customers Specified Resources.

* Specified Resources are resources that a customer is required by statute or has agreed to use to serve its Total Retail Load. Each such resource is identified as a specific resource and is listed in section 2 or 4 of Exhibit A. Specified Resources are a subset of Dedicated Resources.
Timeline to Request RSS

- For Specified Resources listed in Exhibit A prior to a Notice Deadline
  - By each Notice Deadline below, Customers must commit to purchase RSS from BPA for the corresponding Purchase Period.

<table>
<thead>
<tr>
<th>Notice Deadline</th>
<th>Purchase Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 1, 2009</td>
<td>FY 2012 – FY 2014</td>
</tr>
<tr>
<td>September 30, 2011</td>
<td>FY 2015 – FY 2019</td>
</tr>
<tr>
<td>September 30, 2016</td>
<td>FY 2020 – FY 2024</td>
</tr>
<tr>
<td>September 30, 2021</td>
<td>FY 2025 – FY 2028</td>
</tr>
</tbody>
</table>

- For new Specified Resources added to Exhibit A within a Purchase Period.
  - By October 31 of a Rate Case Year (11 months before a Rate Period), Customers must commit to purchase RSS from BPA for the remainder of the current Purchase Period and the following Purchase Period.
RSS Elections

The following is an overview of the Resource Support Service (RSS) products customers elected to purchase from BPA to support new specified resources that will be used for the first Purchase Period (FY 2012-14). Total aMW of non-Federal resources for which BPA will be providing RSS under each product are approximate.

- **Diurnal Flattening Service (DFS) and Forced Outage Reserve Service (FORS):**
  - BPA will be providing DFS and/or FORS for four non-Federal resources, including one wind project, two landfill gas projects, one biomass project and one hydro project.
    - BPA is providing DFS for one non-Federal resource (just under 1 aMW).
    - BPA is providing DFS and FORS for four non-Federal resources (about 6 aMW).

- **Secondary Crediting Service (SCS):**
  - **Option 1:** BPA is providing SCS under Option 1 for four existing non-Federal hydro resources (about 10 aMW).
  - **Option 2:** BPA is providing SCS under Option 2 for three non-Federal hydro resources (just over 3 aMW).
Diurnal Flattening Service - FAQ

- **What type of rate will be used for the DFS?**
  - The DFS will likely be a formula rate that will produce unique rates and charges based on the generating profile of a resource or a portfolio of resources.
  - The same formula rate will be applied to BPA’s resources making up the Tier 2 rates, as necessary. This is intended to avoid creating an advantage to serving above-RHWM load with either non-Federal or power from BPA at Tier 2 rates.

- **What data will be used to price the DFS?**
  - When available, the generating profile will be constructed using historical scheduled (or metered) generation. If historical scheduled (or metered) generation is not available, the historical generating profile of a similar resource will be used until the resource develops its own history.

- **Are there any data requirements to receive DFS?**
  - Resources receiving DFS must be metered with the meter and schedule (if scheduled) information provided to BPA.

- **Are there any transmission requirements to receive DFS?**
  - A Load Following customer with a BPAT NT agreement must purchase Transmission Scheduling Services from BPA in order to qualify to purchase DFS.

- **How will DFS work for customers with transfer service?**
  - There are special circumstances presented by some customers served by transfer that present particular challenges for the provision of RSS. BPA has not resolved all of these issues, but intends to continue working on them, so that if possible, all Load-Following customers will have access to these services in the most cost-effective manner.
RSS Summary: Key Points

- Rates for RSS will be established in 7(i) processes.
- RSS is a suite of voluntary services customers may take from BPA to help facilitate the development and acquisition of their non-Federal Resources.
- To ensure a level playing field between choosing Federal Power at Tier 2 rates or non-Federal resources, BPA will employ the same RSS pricing methodologies for its Tier 2 rate service.
- The RSS design is intended to be flexible so that customers can mix and match their services to meet their needs for durations between 3 and 5 years.
- The RSS design is also intended to be consistently and transparently applied across a wide variety of resource types.
- Customers have elected RSS to support a total of 9 resources (with four customers electing the same RSS to support their individual shares of the same 2 resources).
Contracts Appendix
Resource Definitions: Regional Dialogue Power Sales Agreement

- **“Consumer-Owned Resource”** means a Generating Resource connected to «Customer Name»’s distribution system that is owned by a retail consumer, has a nameplate capability greater than 200 kilowatts, is operated or applied to load, and is not operated occasionally or intermittently as a backup energy source at times of maintenance or forced outage. Consumer-Owned Resource does not include a resource where the owner of the resource is a retail consumer that exists solely for the purpose of selling wholesale power and for which «Customer Name» only provides incidental service to provide energy for local use at the retail consumer’s generating plant for lighting, heat and the operation of auxiliary equipment.

- **“Contract Resource”** means any source or amount of electric power that «Customer Name» acquires from an identified or unidentified electricity-producing unit or units by contract purchase, and for which the amount received by «Customer Name» does not depend on the actual production from an identified Generating Resource.

- **“Dedicated Resource”** means a Specified Resource or an Unspecified Resource Amount listed in Exhibit A that «Customer Name» is required by statute to provide or obligates itself to provide under this Agreement for use to serve its Total Retail Load.
Resource Definitions:
Regional Dialogue Power Sales Agreement

- “Existing Resource” means a Specified Resource listed in section 2 of Exhibit A that «Customer Name» was obligated by contract or statute to use to serve «Customer Name»’s Total Retail Load prior to October 1, 2006.

- “Generating Resource” means any source or amount of electric power from an identified electricity-producing unit, and for which the amount of power received by «Customer Name» or «Customer Name»’s retail consumer is determined by the power produced from such identified electricity-producing unit. Such unit may be owned by «Customer Name» or «Customer Name»’s retail consumer in whole or in part, or all or any part of the output from such unit may be owned for a defined period by contract.

- “New Resource” means (1) a Specified Resource listed in section 2 of Exhibit A that «Customer Name» was or is first obligated by contract, or was or is obligated by statute, to use to serve «Customer Name»’s Total Retail Load after September 30, 2006, and (2) any Unspecified Resource Amounts listed in Exhibit A.
Resource Definitions: Regional Dialogue Power Sales Agreement

- “Small Non-Dispatchable Resource” means a Specified Resource connected to «Customer Name»’s distribution system the output of which cannot be shifted between Diurnal periods or days by the resource owner or operator. Such resource is further defined as:
  - (1) an Existing Resource that has a nameplate capability less than or equal to three megawatts, or
  - (2) a New Resource that has a nameplate capability less than or equal to one megawatt.

- “Specified Resource” means a Generating Resource or Contract Resource that has a nameplate capability or maximum hourly purchase amount greater than 200 kilowatts, that «Customer Name» is required by statute or has agreed to use to serve its Total Retail Load. Each such resource is identified as a specific Generating Resource or as a specific Contract Resource with identified parties and is listed in sections 2 and 4 of Exhibit A.

- “Unspecified Resource Amount” means an amount of firm energy, listed in sections 3 and 4 of Exhibit A, that «Customer Name» has agreed to supply and use to serve its Total Retail Load. Such amount is not attributed to a Specified Resource.
Resource Information in the Contract

- Resources are listed in Exhibit A
- The threshold for a resource to be listed in Exhibit A is having a nameplate capability greater than 200 kW
- In Exhibit A each Dedicated Resource has:
  - a resource profile (for example: nameplate, date resource dedicated to load)
  - monthly/diurnal energy amounts
  - monthly peak amounts (Slice/Block customers currently have blanks for peak amounts)
- In Exhibit A each resource not dedicated to load and Consumer-Owned Resource has:
  - A resource profile
  - Annual average energy amounts
Resource Information Decision Tree

for load-following customers with Specified Resources

"Existing" Generating Resource Tree

Nameplate greater than 3 MW?

- No. Run to load.

- Yes. Does resource have Grandfathered GMS (Moyie, Yelm, and McNary Fisway)?

  - No. Does resource have a firm critical energy component and a secondary energy component?

    - No. Option 1: Run to load. Must purchase DFS with optional FORS from BPA.
     Option 2: Meet predefined hourly resource amounts. May reshape monthly and diurnal dedicated resource amounts every Purchase Period. May move HLH into Super Peak hours every rate period.

    - Yes. Run to load. Must pay monthly GMS reservation fee. Credits for over generation and charges for under generation are seen through Load Shaping Charge.

Resource Shapes
See next slide, “New” Generating Resource Tree, for allowable resource shapes and how to dedicate Contract Resources and Unspecified Resource Amounts.

"Existing Resources" means a Specified Resource listed in section 2 of Exhibit A that «Customer Name» was obligated by contract or statute to use to serve «Customer Name»'s Total Retail Load prior to October 1, 2008.

Acronym Key:
DFS = Diurnal Flattening Service
SCS = Secondary Crediting Service
FORS = Forced Outage Reserve Service
Resource Information Decision Tree

for load-following customers with Specified Resources:

“New” Generating Resource Tree

- Nameplate greater than 200 kW?
  - No. Run to load.
  - Yes. Nameplate greater than 1 MW?
    - No. Aggregate nameplate of all New Resources greater than 200 kW greater than 1 MW?
      - Yes. Option 1: Run to load. Must purchase DFS with optional FORS from BPA. RRS may be available. Option 2: Meet predefined hourly resource amounts. May reshape monthly and diurnal dedicated resource amounts every Purchase Period. May move HLH into Super Peak hours every rate period.
      - Yes. BPA shall consider the impacts of the aggregate shape of such new resources and may require the application of DFS, otherwise run to load.

Resource Shapes
- Generating Resources:
  - Monthly: Resource Monthly Shape, Total Retail Load Shape, Flat Annual Shape, and PNCA Update Shape.
  - Diurnal: Resource Diurnal Shape, Flat Within-Month Shape, HLH Diurnal Shape (move LLH into HLH) Within-Diurnal: Flat or move HLH into Super Peak hours.

- Contract Resources and Unspecified Resource Amounts:
  - Monthly: Total Retail Load Shape, Flat Annual Shape.
  - Diurnal: Flat Within-Month Shape, HLH Diurnal Shape (move LLH into HLH) Within-Diurnal: Flat or move HLH into Super Peak hours.

Resource Information Decision Tree

“New Resources” means (1) a Specified Resource listed in section 2 of Exhibit A that «Customer Name» was or is first obligated by contract, or was or is obligated by statute, to use to serve «Customer Name»'s Total Retail Load after September 30, 2000, and (2) any Unspecified Resource Amounts listed in Exhibit A.

Resource Definitions: 
BPA’s Open Access Transmission Tariff

Network Load

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer’s Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.
Resource Definitions:
BPA’s Open Access Transmission Tariff

Network Resource

- Any designated generating resource owned, purchased or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale of one year or more to third parties or otherwise cannot be called upon to meet the Network Customer’s Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program.
Dedicated vs. Designated

- Dedicated Resources ≠ Designated Resources
  - A customer’s Dedicated Resources (Specified Resources and Unspecified Resource Amounts) could be getting to a customer’s load with different types of transmission.
    - Firm NT as a Network Resource (aka a resource a customer has “designated” to serve its Network Load)
    - Non-Firm NT (aka Secondary NT Service)
    - PTP Transmission (Firm and Non-Firm)
    - Behind the Meter Resource (using a resource within the customer’s distribution system)
### Designation and Undesignation of Network Resources

<table>
<thead>
<tr>
<th>Request Type</th>
<th>NT Customer Action</th>
<th>Regional Dialogue Considerations</th>
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</thead>
<tbody>
<tr>
<td>Load and Resource Forecasts</td>
<td>No OASIS request currently required</td>
<td>Similar requirements between Transmission Resource Forecasting and Regional Dialogue contract</td>
</tr>
<tr>
<td>NT customers submit Load and Resource Forecasts</td>
<td>- Load and Resource Forecasts must be submitted at least annually and for any material changes</td>
<td>- Load forecasts also used in above-HWM calculations</td>
</tr>
<tr>
<td>in order for TS to anticipate and plan for future</td>
<td>- All submissions must be sent to Agency Load Forecasting (KSL)</td>
<td>- Load and Resource Forecasts are critical for updating BPAT’s planning for NT service</td>
</tr>
<tr>
<td>NT transmission needs</td>
<td></td>
<td></td>
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<tr>
<td>Designation of a New Network Resource (DNR)</td>
<td>OASIS request required, which must include:</td>
<td>Power Services and NT customer requests receive similar treatment</td>
</tr>
<tr>
<td>NT customers designate Network Resources to serve</td>
<td>- Signed statement attesting that the NT customer owns the resource or has a power purchase agreement in place and the resource will be used to service the customer’s Network Load</td>
<td></td>
</tr>
<tr>
<td>NT Load on Long-Term Firm Transmission</td>
<td>- Description of the resource (different requirements for on- and off-system resources)</td>
<td></td>
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<td></td>
<td>- Market purchase DNRs must meet the data requirements outlined in OATT section, 29.2</td>
<td>NT customers must submit DNRs for any non-federal Network Resources used to serve their Network Load</td>
</tr>
<tr>
<td>Undesignation of Network Resources</td>
<td>Submit an email to <a href="mailto:tblresdesk@bpa.gov">tblresdesk@bpa.gov</a>. No OASIS request required.</td>
<td>Power Services must submit DNRs for resources used to serve both Tier 1 and Tier 2 loads</td>
</tr>
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<td>NT Customers must undesignate a Network Resource</td>
<td>- NT customers lose their right to any capacity for the third party that has been undesignated</td>
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<td>to deliver the designated Network Resource to</td>
<td>- BPAT awaiting ruling from FERC on undesignations for less than a year</td>
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<tr>
<td>another party’s load</td>
<td>- PTP transmission is required to move the resource to the third party load</td>
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<td></td>
<td>NT customers may request to undesignate non-federal Network Resources</td>
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<tr>
<td></td>
<td></td>
<td>Power Services may request to undesignate its Network Resources</td>
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