

2012 BPA Rate Case Customer Workshop

April 13, 2010, Updated April 19

Tier 2 Rate Service Overview and
Resource Support Service and Related Services Overview

Predecisional. For Discussion Purposes Only



Agenda

- Tier 2 Rate Overview Slide 4
 - Resource Support Services and Related Services Overview Slide 12
 - Tier 2 Cost Pool Development/Cost Allocation Issues
- See Second PowerPoint:
- Tier 2 Rate Pricing and Resource Support Service and Related Services Pricing
 - Short-term Rate
 - Load Growth Rate
 - Remarketing credit (less transaction cost proxy) assigned to the cost pool
 - Vintage Rate(s) if offered (on hold for a future workshop)
 - Costing issues possibly applicable to all Tier 2 cost pools
 - Overhead Adder
 - RSS
 - TSS/TCMS
 - Risk Mitigation
 - Rate Design
 - Short-term Rate
 - Load Growth Rate
 - Vintage Rate(s) if offered (on hold for a future workshop)
 - Tier 2 Remarketing Credit Calculation
 - For Load Following customers taking Vintage or that have opted out of future Load Growth amounts
 - For Slice customers taking Short-term or Vintage
 - Rate to change from Short-term to Vintage (on hold for a future workshop)
 - Rate to reduce future LG or ST amounts
 - Shared Rate Plan (Moot issue for BPA-12)



Agenda continued

- Resource Support Services and Related Services Rate Proposal
- Diurnal Flattening Service
 - Energy Charge
 - Capacity Charge
 - Resource Shaping Charge
 - Resource Shaping Charge Adjustment
- Forced Outage Reserve Service
 - Energy Charge
 - Capacity Charge
- Secondary Crediting Service
 - Administrative Charge
 - Secondary Energy Credit/Shortfall Energy Charge
- Transmission Scheduling Service/Transmission Curtailment Management Service
- Resource Remarketing Service



Tier 2 Rate Alternatives

- Customers have three 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
- 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.
- The table below illustrates the timeline for future elections.

Notice Deadline		Purchase Period
November 1, 2009	for	FY 2012 – FY 2014
September 30, 2011	for	FY 2015 – FY 2019
September 30, 2016	for	FY 2020 – FY 2024
September 30, 2021	for	FY 2025 – FY 2028



Tier 2 Rate Alternatives

- Tier 2 rates will be established in 7(i) processes.
- Tier 2 rate alternatives will be based on the cost 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.
- Election Opportunities: Nov. 1, 2009 for the period FY2012 through 2028 and Sept. 30, 2011 for the period FY2015 through 2028.
- 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, shown on Slide 4.
- BPA will determine 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).
- 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

Tier 2 Alternative (Customer commitment)	<u>Potential</u> Resources Allocated to Tier 2 Rate Pool <i>(Will evolve over time as we get more information about available resources and customer needs and interests)</i>	RECs Provided?
Load Growth (14 or 17 yrs)	A mix of short & 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	Potential that some level of RECs could be provided over the course of the contract.
Short-Term (3-5 yrs)	Short-Term market purchases (5 years or less in duration). Purchases driven by lowest cost market opportunities	Unlikely
Vintage (up to 17 yrs)	Based on customer interest. (In no particular order: Wind, Geothermal, Solar, Waste Energy Generation, CCCT) Resource selection driven by targeted resource & lowest life cycle cost	Yes, for most renewable-based Vintage rate Alternatives.



Nov. 1 Tier 2 Elections

First Purchase Period A-HWM Election Summary				
103 Load Following customers ¹ , 17 slice customers LGR = Load Growth Rate STR = Short-Term Rate LSR = Load Shaping Rate				
		Load (in aMW)		
		2012	2013	2014 ²
Load Following	<u>Load Growth Rate</u> <small>41 customers³</small>	0.0	2.7 (2 cust)	6.6 (4 cust)
	<u>Short Term Rate</u> <small>49 customers⁴</small>	21.1 (6 cust)	53.9 (10 cust)	39.0 (14 cust)
	<u>Non-Federal Resources</u> <small>13 customers opted no Tier 2⁵</small>	14.4 (11 cust)	25.9 (11 cust)	80.0 (11 cust)
	<u>Load Shaping Rate</u> <small>aMW totals include customers electing LGR, STR or non-federal resources with <8760 MWh of A-HWM load (including no A-HWM load).⁶</small>	5.6 (86 cust)	12.1 (80 cust)	15.0 (74 cust)
Slice	<u>Short Term Rate</u> <small>2 customers opting for 1 aMW each under the STR in 2014</small>	-	-	2.0
	<u>Non-Federal Resources</u>	102.7	174.3	242.7
Total⁷	<u>Load Growth Rate</u>	0 (0%)	2.7 (1%)	6.6 (2%)
	<u>Short Term Rate</u>	21.1 (15%)	53.9 (20%)	41.0 (11%)
	<u>Non-Federal Resources</u>	117.1 (81%)	200.2 (74%)	322.6 (84%)
	<u>Load Shaping Rate</u>	5.6 (4%)	12.1 (5%)	15.0 (4%)
	<u>Total</u>	144	269	385

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.



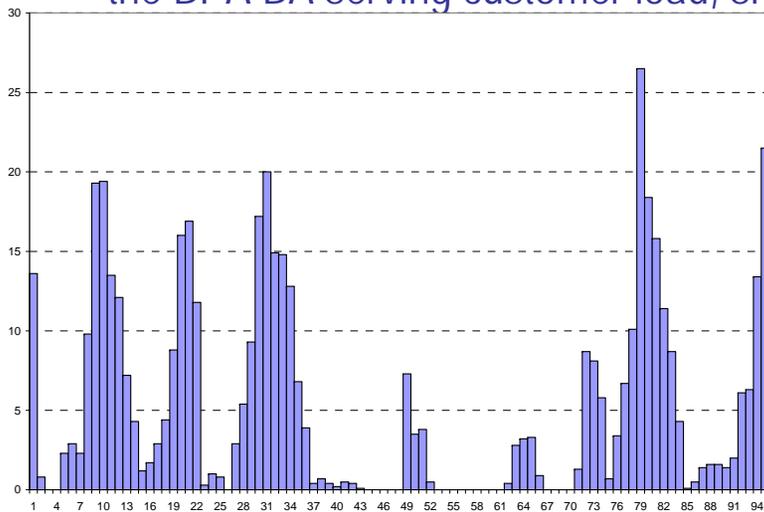
Resource Support Services

- **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.

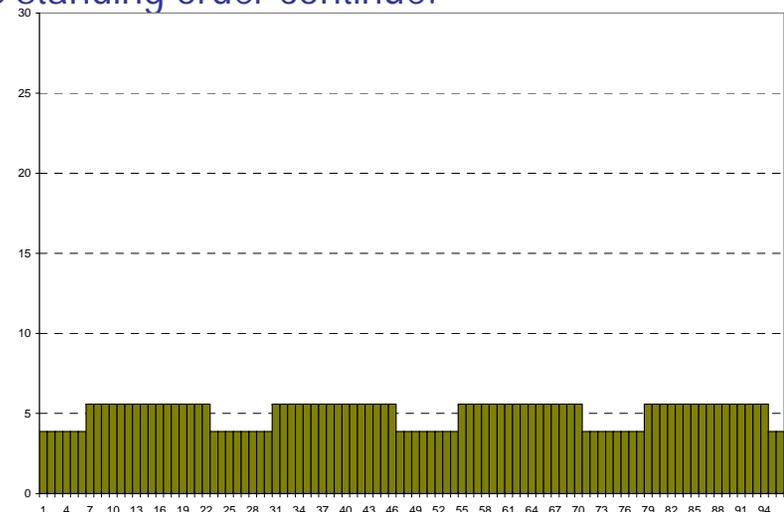


What services make up RSS?

- **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.



Hours

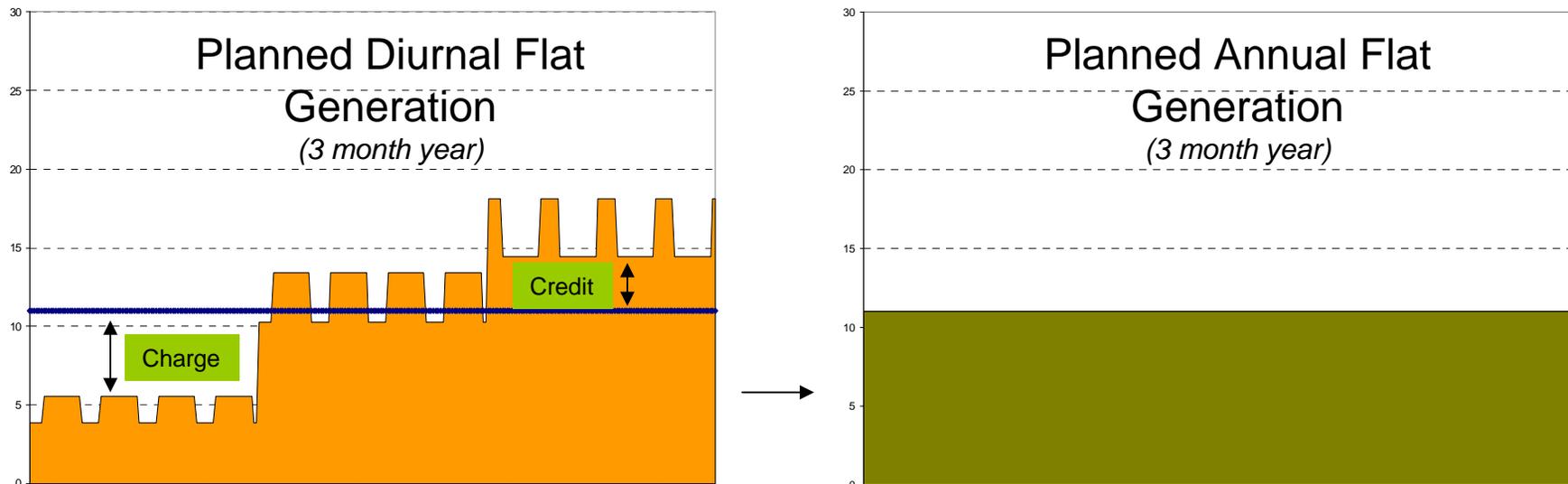


Hours



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.



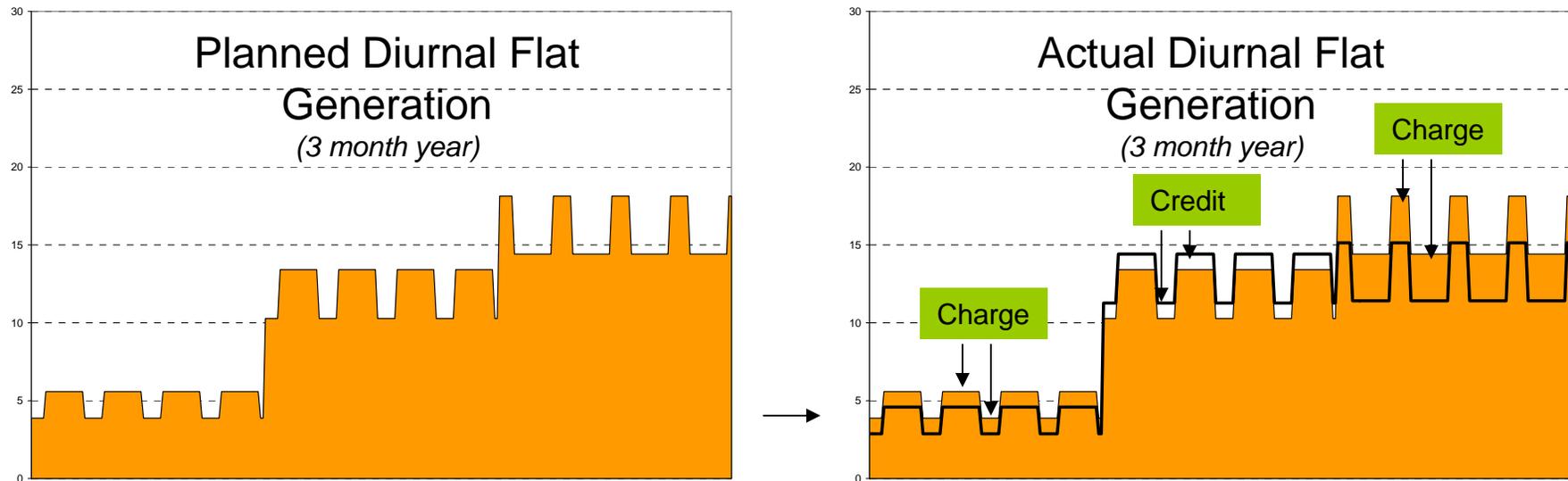
Resource Shaping Charge

- 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.



Resource Shaping Charge Adjustment

- 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 (UAI), 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 is hydro based, with a firm critical energy component and a secondary energy component. BPA also provides forced outage energy when necessary. 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 new 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-based.
 - 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.

Notice Deadline		Purchase Period
November 1, 2009	for	FY 2012 – FY 2014
September 30, 2011	for	FY 2015 – FY 2019
September 30, 2016	for	FY 2020 – FY 2024
September 30, 2021	for	FY 2025 – FY 2028

- 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 five 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 2 aMW).



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

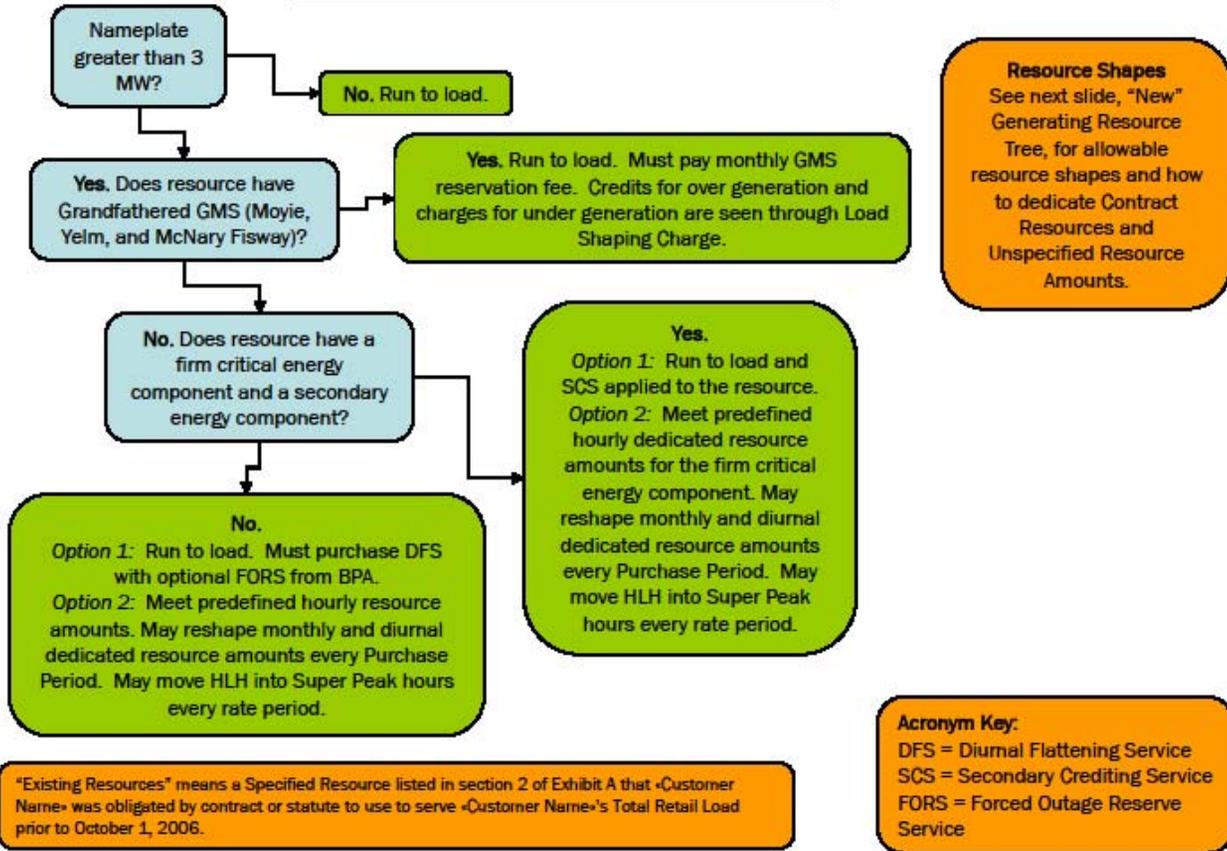
- Resources are listed in Exhibit A
- The threshold for a resource to be listed in Exhibit A is having a nameplate capability greater than 200 kW
- In Exhibit A each Dedicated Resource has:
 - a resource profile (for example: nameplate, date resource dedicated to load)
 - monthly/diurnal energy amounts
 - 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:

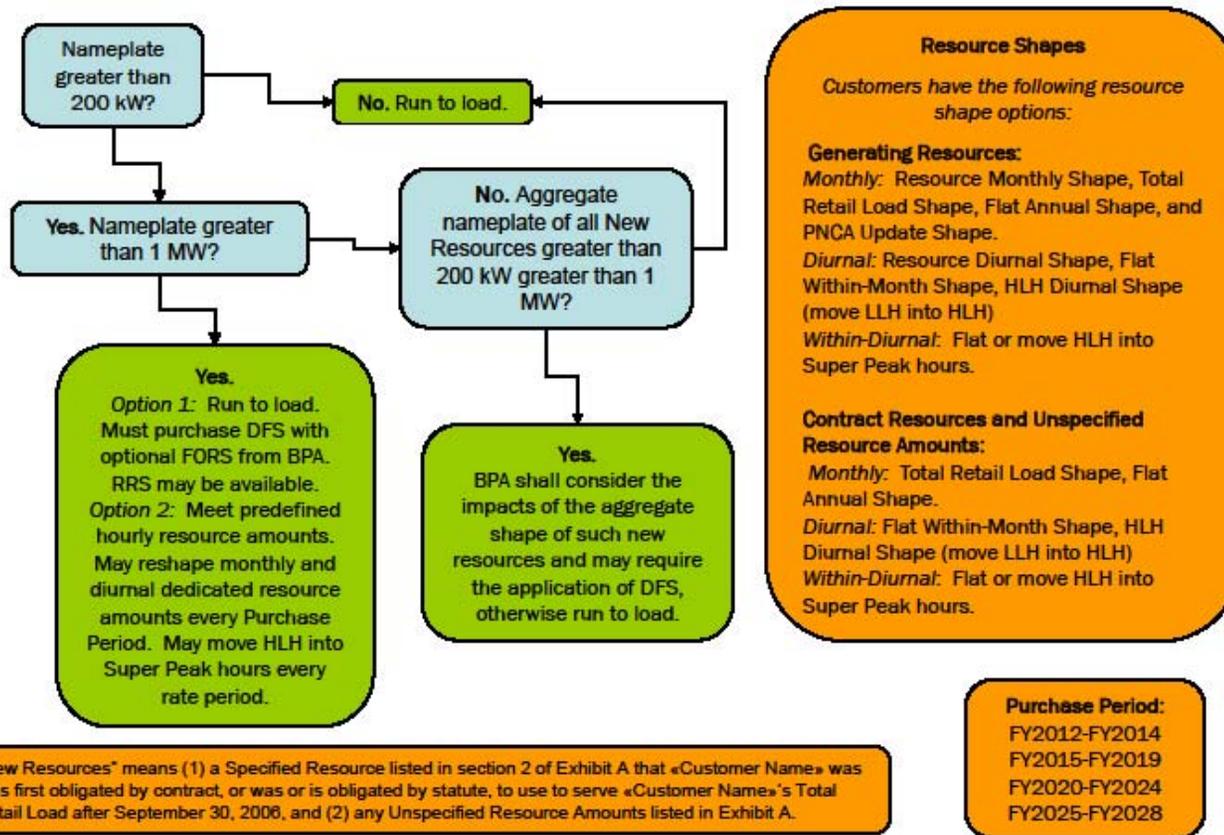
"Existing" Generating Resource Tree



Resource Information Decision Tree

for load-following customers with Specified Resources:

“New” Generating Resource Tree



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 \neq 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

Request Type	NT Customer Action	Regional Dialogue Considerations
<p>Load and Resource Forecasts NT customers submit Load and Resource Forecasts in order for TS to anticipate and plan for future NT transmission needs</p>	<ul style="list-style-type: none"> - No OASIS request currently required - Load and Resource Forecasts must be submitted at least annually and for any material changes - All submissions must be sent to Agency Load Forecasting (KSL) 	<ul style="list-style-type: none"> - Similar requirements between Transmission Resource Forecasting and Regional Dialogue contract - Load forecasts also used in above-HWM calculations - Load and Resource Forecasts are critical for updating BPAT's planning for NT service
<p>Designation of a New Network Resource (DNR) NT customers designate Network Resources to serve Network Load on Long-Term Firm Transmission</p>	<ul style="list-style-type: none"> - OASIS request required, which must include: - 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 - Description of the resource (different requirements for on- and off-system resources) - Market purchase DNRs must meet the data requirements outlined in OATT section, 29.2 	<ul style="list-style-type: none"> - Power Services and NT customer requests receive similar treatment - NT customers must submit DNRs for any non-federal Network Resources used to serve their Network Load - Power Services must submit DNRs for resources used to serve both Tier 1 and Tier 2 loads
<p>Undesignation of Network Resources NT Customers must undesignate a Network Resource to deliver the designated Network Resource to another party's load</p>	<ul style="list-style-type: none"> - Submit an email to tblresdesk@bpa.gov. No OASIS request required. - NT customers lose their right to any capacity for the third party that has been undesignated - BPAT awaiting ruling from FERC on undesignations for less than a year - PTP transmission is required to move the resource to the third party load 	<ul style="list-style-type: none"> - NT customers may request to undesignate non-federal Network Resources - Power Services may request to undesignate its Network Resources



Resource Support Services Appendix



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.



Capacity Benefit

- Firm capacity is created through the DFS.
- BPA proposes to treat firm capacity purchased through the DFS the same as firm capacity brought by a customer resource.
 - Consistent treatment between self, third party, and BPA-provided RSS
- See following graphs.



Proposed Treatment of Wind with DFS (including RSC and RSC Adj) Showing the Hourly Load Profile and the Demand Billing Determinant Compared to Subscription Storage and Shaping Product Treatment

