

## Part 3: Resource Support Services (RSS)

### Background

Under the Regional Dialogue contracts customers will have a CHWM that defines the amount of load service from BPA that is charged at Tier 1 rates (recovering the costs of the “existing” Federal system). Customers can elect to have BPA serve their load growth beyond their CHWM, which would be at the marginal cost of doing so (at a Tier 2 rate). The RD Policy provides for Tier 2 service from BPA in a flat annual block of energy.

Alternatively, a customer may meet its load above its RHW with its own non-Federal resources. In general, the shape of the new non-Federal resources a Block or Slice/Block customer uses to serve its load above its RHW does not impact the shape of its net requirement load service from BPA at Tier 1 rates (beyond what the Slice portion of the Slice/Block product allows for). The shape of the new non-Federal resources a Load-Following customer applies to serve its above-RHW load does have the potential to impact its service at Tier 1 rates—and therefore could impact the rates paid by other Tier 1 customers unless a Resource Shaping Charge (or may be a credit) is applied. If a Load-Following customer applies non-Federal resources (on a planning basis) in the benchmark shape, a flat annual block, BPA will propose no additional Resource Shaping Charges (or credits).

Load-Following customers will have the option of committing non-Federal resource amounts in shapes other than a flat block, but additional ~~resource~~ Resource Shaping Charges (or credits) associated with doing so may apply to ensure that BPA’s other customers are neither harmed by nor benefited by those resource decisions and to provide incentives for resource additions in the most beneficial shapes. The rates used for the Resource ~~Shaping charge~~ Shaping Charges (and credits) will be exactly the same as those used for the Load ~~Shaping charge~~ Shaping Charges (and credits).

In addition, the RD Policy states that to avoid biasing customers' choices, BPA's charges for non-transmission service-based integration services for non-Federal resources will be the same as those included in Tier 2 rates based on similar resources. The RD Policy also states that BPA will offer services necessary to integrate renewable resources to meet a customer's regional firm consumer requirements load. To implement the RD Policy, BPA has developed a suite of Resource Support Services (detailed below) for customers' non-Federal resources and for pricing service from BPA at Tier 2 rates. These services include a Flattening Service Diurnal Flattening Service (FSDFS), Forced Outage Reserves-Reserve Service (FORS), Transmission Curtailment Management Service (TCMS), Secondary Crediting Service (SCS), and Resource Remarketing Service (RRS). These services enable BPA to cover the costs of following the variation between planned and actual customer resource amounts and to account for the impact that resource shapes and fluctuations have on BPA's cost to meet its customer's net requirement load.

### Conditions and Terms of Service Applicable to All Resource Support Services

**Notice and Commitment Term:** The provision of all the RSS described below will require notice and commitment terms consistent with the timelines required for the purchase of BPA's Tier 2 Short-Term ~~Tier 2~~ rate alternative.

**Limitations:** These services do not include within-hour firming services that can be purchased from the applicable balancing authorities or self-provided. The RSS described below are only available to specified Rresources dedicated to serve load. There are special circumstances presented by some customers served by transfer that present particular challenges for the provision of these services. ~~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. Consistent with BPA's evaluation and decision of this issue on pages 43-45 of the October 31<sup>st</sup>, 2008 Record of Decision, BPA will work with transfer customers to accommodate these special circumstances.~~ The scenarios below describe possible solutions BPA has been considering but do not constitute a formal agency opinion or final decision on what the best solution is.

**Resource Location Considerations:**

*Non-Federal resources located within BPA's balancing authority (BA).* In general, non-Federal resources located *within* BPA's balancing authority (BA) will need to be scheduled to the customer's load. If, on a given hour, the non-Federal resource produces more energy than needed to serve the customer's load (after reducing the customer's PF load service to zero), then BPA will manage the excess generation. There may be circumstances that allow for mutually agreeable alternative solutions for the customer and BPA to work out for scheduling a customer's non-Federal resource.

*Non-Federal resources located outside of BPA's BA.* In general, non-Federal resources located *outside* of BPA's BA will also be scheduled to the customer's load when the customer is located inside or outside BPA's BA (whether served by transfer or operating their own BA). An exception to this rule is when the customer is served by transfer and its resource is in their transferor's BA. ~~In these instances, since BPA is requiring the resource to be scheduled to the BPA BA, limited transmission availability there may not be the ability to schedule~~ complicate the delivery of a non-Federal resource back directly to the customer's load. In these circumstances BPA will ~~exchange Federal power for the non-Federal power delivered to the BPA BA.~~ work with the transfer customer to develop the best plan of service for the delivery of a resource taking RSS that fits the customer's resource choice and the existing circumstances of transmission constraints. ~~There may be additional circumstances that allow for mutually agreeable alternatives for the scheduling of a customer's non-Federal resource(s).~~

**Transmission Considerations:** Unless otherwise agreed to by BPA, resources located outside of the BPA BA must be scheduled on firm transmission to a customer's load in the BPA BA in order for BPA to provide a customer with RSS for its non-Federal resource, unless the resource is ~~are~~ a "renewable resources." ~~These~~ These customers are not required to obtain firm transmission over the BPA transmission system as a prerequisite of taking these services from BPA but not having firm transmission across the BPA transmission system may result in

additional charges due to the inability (transmission constraints and curtailments) to deliver the resource to load.

**Transmission Scheduling Service:** Load-Following customers with a BPA NT contract ~~taking who take several of these~~ either the DFS or SCS -services from BPA for any non-Federal resource, or serve any amount of above-HWM load with power at a Tier 2 rate, or are served by Transfer, are required to take transmission scheduling services from ~~BPABPA. if their resource is a scheduled resource, unless otherwise noted.~~ There may be rates or fees developed in future rate cases to recover the cost of this service.

**Scheduling Provisions:** Customers must schedule in accordance with BPA's scheduling parameters/procedures.

**Metering:** All resources ~~behind the customer's meter~~ taking these services from BPA will need to be metered at the customer's expense. Resources provided based on the actual shape of resource generation that are taking these services from BPA and are scheduled to the customer's load will also need to be metered.

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

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

with a ~~R~~resource ~~shaping~~ ~~Shaping charge~~ ~~Charge adjustment~~ ~~Adjustment~~ which will account for differences between projected and actual resource performance.

**Availability:**

*For Load-Following Customers with New Resources Greater than 1 MW in Nameplate Capability (either Individually or in Aggregate).* This service is available for Load-Following customers' new, ~~specific~~, non-Federal, resources dedicated and specified to serve load (whether from a "renewable" source or otherwise). This service will, in essence, allow for modifications to the customer's PF load service amounts in real-time to accommodate the hourly variations (due to weather variations, for example) in the specified resource in question. The amount delivered from BPABPA through Diurnal Flattening Service, the Resource Shaping Charges, Resource Shaping Charge Adjustments, -and the resource generation (either metered amounts or scheduled amounts) equal, on an annual average basis, the planned amount of above-RHWM load they committed to serve in their Regional Dialogue contract with BPA-supported non-Federal resources. Flattening service is not available to customers to shape their resource for market sales or marketing fluctuations.

*For Load-Following Customers with "Existing" Resources Less than ~~15-3~~ MW in Nameplate Capability (either Individually or in Aggregate).* Load-Following customers under Regional Dialogue contracts with "existing" generating resources (where "existing" means resources in the Regional Dialogue contract that are specified resources that customers are obligated by contract or statute to use to serve their Total Retail Load prior to October 1, 2006~~in the Regional Dialogue contract as of its effective dates~~~~subtracted from their TRL to calculate the Customer's CHWM~~) less than 3 MW of nameplate capability are exempt from all resource support services. Load-Following customers with existing generating resources greater than, or equal to, 3 MW ~~but less than 15 MW of nameplate capability are exempt from the flattening service and therefore the related energy and capacity charges will not be applied, nor will resource shaping charges and resource shaping charge adjustments be applied. These 3 MW to 15 MW resources will~~may continue to be subject to purchase forced ~~Forced outage~~ Outage Rreserve Sservice (as applicable), Diurnal Flattening Service (as applicable) and, depending on the type of generating

resource, Secondary Crediting Service, depending on either the customer's election or BPA's determination. These services are described below in Sections 2 and 3. The DFS would be identical to that which is provided to customers' "new" resources, except there would be no Resource Shaping Charge or Resource Shaping Charge Adjustment. Instead the customer's Load Shaping Charges would reflect actual scheduled energy amounts from the resource. While the resource support services will generally not apply to all of the resources described in this category it is worth noting that the shape of the resources will impact the Load Shaping charge Shaping Charges applicable to their load, because a Resource Shaping Charge is only applied to New Resource amounts.

~~*For Load Following Customers with "Existing" Resources Greater than 15 MW in Nameplate Capability (either Individually or in Aggregate). Load Following customers under Regional Dialogue contracts can elect to have BPA provide the flattening services (FS) for their "existing" resources greater than 15 MW in nameplate capacity. The FS would be identical to that which is provided to customers' "new" resources, except there would be no resource shaping charge or resource shaping charge adjustment. Instead the customer's load shaping charges would reflect actual scheduled energy amounts from the resource.*~~

*For Block and Slice/Block Customers' New Resources.* This flattening service is available for Block and Slice/Block customers' new, specified, non-Federal, renewable resources dedicated to serve load. The current thinking is that provision of this service will in essence require the customer to change their pre-scheduled PF Block load service amounts to accommodate the hourly variations in the specified renewable resource.

**Interaction with Forced Outage Reserve Services:** A resource with no capacity value is already getting the necessary firm capacity for its resource through the FSDFS from BPA, and has no need to purchase additional generation Forced Outage Reserves-Reserve Service (FORS). All other resources will need to purchase FORS separately from BPA or a non-BPA source. That service is described in more detail below.

**Replacement Required:** The customer is responsible for acquiring replacement power from other sources in an amount equal to the expected hourly schedule if the customer elects to economically dispatch its resource taking DFS.

**Pricing:** Flattening services will be considered a requirements service from BPA for Load-Following customers and will be provided under a PF-RSS rate schedule. The limited ~~FSDFS~~ available to Block and Slice/Block customers described above is will also be considered a requirements service from BPA to go beyond BPA's planned requirements load obligation to the customer and will therefore be provided under the ~~PF-RSS~~PFPS rate schedule. The methodology for calculating the applicable rates in either case will be equivalent.

## 2. Forced Outage Reserve Service s-(FORS)

**Product Description Summary:** Through this service BPA provides reserves at the start of an hour that can be called upon by the customer, with proper notice given to BPA, in the event of a resource ~~or transmission~~ outage for resources dedicated and specified to serve the customer's load. A resource with no capacity value taking the Diurnal F flattening S service from BPA described above is already getting FORS for the resource; ~~however, transmission FOR due to transmission curtailment or constraints may be necessary.~~

**Availability:** This is not a requirements service for Load-Following customers, ~~but not for~~ Block, and Slice/Block customers. The provision of this service to Block and Slice/Block customers will be on an as available basis and subject to mutual agreement between the requesting customer and BPA. An exception is in situations where FORS must be combined with ~~FSDFS~~ for a Block or Slice/Block customer's dedicated-specified, renewable resource that has demonstrated capacity value.

**Limitations:** The quantity of FORS capacity needed to be purchased will either be the nameplate capacity times a percent or the machine forced outage rating. There will be an annual

energy limit defined as 5 percent (or the machine forced outage rating) multiplied by the contract capacity limit multiplied by the number of hours in the year multiplied by two. For 5-year commitment terms, there will be a 5 consecutive year energy limit defined as 5 percent (or the machine forced outage rating) multiplied by the contract capacity limit multiplied by the number of hours in the year multiplied by five. Shorter duration commitment terms will shorten the consecutive year energy limit.

**Interactions with other RSS:** For Load-Following customers, this service can be taken as a stand-alone service but can also be combined with the flattening-DFS services described above and the SCS described below.

**Transmission Scheduling Service:** Load-Following customers with a BPA NT contract taking FORS without any other RSS, and who are not served by transfer, are not required to take BPA transmission scheduling services as a condition of taking FORS, but will have the option to do so.

**Pricing:** Pricing ~~is will be~~ described in greater detail in ~~the a future rate case~~ TRM.

### 3. Transmission Curtailment Management Service (TCMS)

**Product Description Summary:** This service is going to be included as an additional feature of the Transmission Scheduling Service available to Load-Following customers, and is one where BPA provides replacement power when there is a transmission curtailment between a customer's qualifying resource and its load. through the hour of delivery. This service will provide such replacement power for the entire curtailment, unless a curtailment is immediate (within hour), in which case BPA will begin providing this service beginning with the second hour of the curtailment, and for the remainder of the curtailment.

**Availability:** This is not a requirements service for Load-Following customers, Block, and Slice/Block customers. The provision of this This service is not available for to-Block and

Slice/Block customer.s will be on an as available basis and subject to mutual agreement between the requesting customer and BPA. Because this is now proposed to be a feature of the Transmission Scheduling Service, this a like-service will be made available for customers' qualifying resources that whether they are specified or are used to meet their unspecified resource amounts.

**Limitations:** This feature would only apply to transmission curtailments of resources which are Network Resources (to the extent they are not redispatched for by the transmission provider) for both directly-connected customers and those served by Transfer. It will also be applicable to those resources that are actively in the process of being designated as Network Resources for directly-connected customers. For Transfer Service customers the contract Policy ROD explicitly states that BPA shall only obtain Transfer Service for non-Federal resources that have been designated Network Resources. (Contract Policy ROD at 74-75) However, BPA may allow for possible exceptions to the policy on Transfer Service on a case-by-case basis.

For customers using the TCMS feature of the TSS for resources that are in the process of being designated as Network Resources, BPA shall assess periodically how frequently this curtailment coverage service is called upon during the year for a resource that is "actively in the process of being designated a Network Resource" and if it has been called upon more than [168 hours or one week (for example, ~2%) or x times (for example)], BPA may give the customer 30 day's notice that it is withdrawing the TCMS feature of TSS for that resource. After the 30 days notice, when BPA elects to withdraw this feature of TSS, curtailments that occur and that the customer does not replace will result in a UAI. The customer's AE will notify the customer if it appears that the customer is at risk of hitting the above-mentioned threshold. Once BPA has withdrawn this feature for a given resource that is in progress of being designated as a Network Resource, it will only be available for that resource again if it has been successfully added as a Network Resource.

There may need to be additional exceptions to the availability of this service in the event of transmission curtailments that result from BPA exercising curtailment provisions in the Large

Generation Integration Agreements (LGIA). Also, BPA may need to include limitations on the length of duration that a customer is deemed “pursuing Network Resource designation” to qualify for this feature. And BPA may reserve the right to evaluate (based on location and transmission type) on a case-by-case basis the availability of this feature for a future resource that has not yet been designated as a Network Resource.

**Interactions with other RSS:** ~~For Load-Following customers, †This service is only available in can be taken as a stand-alone service in conjunction with TSS, but~~ TSS can also be combined with the flattening services and FORS described above and the SCS described below.

**Transmission Scheduling Service:** Load-Following customers with a BPA NT contract taking TSS without any other RSS are automatically provided this service for their qualifying resources.

**Pricing:** Pricing will be described in greater detail in a future rate case.

#### **34. Secondary Crediting Service (SCS)**

**Product Description Summary:** This service gives a customer an ability to apply to their load the secondary energy generated by their dedicated and specified resource, and by doing so accounts for the value of the secondary energy applied to load beyond the amount established as firm energy. This service would take the place of Service and Exchange and the Complex Partial with Dedicated Resource Services product from Subscription contracts. Customers previously taking the Service and Exchange product may be able to continue to deliver their resource to a POD other than their load, as they do today.

**Availability:** This is a requirements service for Load-Following customers but not for Block and Slice/Block customers. The provision of service to Block and Slice/Block customers will be on an as available basis and subject to mutual agreement between the requesting customer and BPA.

**Limitations:** This product is available for Load-Following customers dedicating their entire hydro resource (either dispatchable or non-dispatchable) to load (both critical firm and secondary energy). Other types of resources that have both a firm and secondary component may be eligible for this service if mutually agreeable to BPA and the customer. The product is only available to existing resources.

**Interactions with other RSS:** For Load-Following customers, this service can be taken as a stand-alone service but can also be combined with the ~~FSDFS-, and described above and the FORS, and TCMS-~~described above.

**Resource Declaration Parameters:** The resource must be declared based on the critical firm shape derived from either its historical generation or its planned critical study if it is part of a coordinated system in at least monthly HLH and LLH amounts, with an option to apply a peak amount. If part of a ~~PNCA-coordinated hydro system~~, these amounts can be updated annually with the issuance of a new critical hydro output studies. ~~Customers taking this service that declare a peak amount will also commit to apply their resource at the time of their customer system peak.~~ GO AHEAD AND DROP

~~**Existing Resources.** If a Load-Following customer has secondary crediting service for an “existing” generating resource less than 15 MW of nameplate capability, the resource will be required to be metered and the secondary amounts will equal the actual metered output less critical output. If the resource was used in calculating a customer’s CHWM, BPA will use the critical output used for that resource when calculating the customer’s CHWM. If the resource was netted against the customer’s load during Subscription and not used in calculating the customer’s CHWM, the customer will be required to provide data to BPA and BPA will calculate a critical output for the resource.~~ GO AHEAD AND DROP

**Replacement Required:** The customer is responsible for acquiring replacement power from other sources if its resource taking SCS is not producing its expected critical energy amount in a given month. Alternatively, BPA may simply apply a market-based charge for the additional

amounts of Federal power BPA provides to fill in for the critical amounts of the resource. The Regional Dialogue contract will establish which approach applies.

**Pricing:** Customers will get a credit against their PF charges for the secondary energy applied to its load. The HE method for establishing this credit (and any transaction costs) will be determined in the applicable 7(i) Process. Other specifics about this service are included on page 80 of the TRM., based on the difference between a percentage 90 percent of the actual applicable Dow Jones Mid-C Index (or other replacement index adopted in a 7(i) rate proceeding) LLH/LLH weighted daily average prices for the month, and the Tier 1 PF rates. Also included in the charges will be a service fee.

#### **45. Resource Remarketing Service (RRS)**

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

**Availability:** RRS is not a requirements service and will be provided on an availability basis. RRS will only be available to Load-Following customers that have: (1) acquired an amount of power ahead of their anticipated above-RHWM load; (2) dedicated the resource to serve their load that is above their RHWM; and, (3) purchased DFS for the amount of resource needed meet their above-RHWM load. This service may take differing forms depending on the amount of surplus capacity BPA expects to have during the commitment term. If the resource provides no capacity contribution (i.e., a wind resource), then BPA will only credit the additional generation (beyond what is specified as serving load) as a LLH block.

**Limitations:** BPA will limit the availability of this service to an amount of resource that is less than or equal to the amount of a customer can acquire ahead of need and request BPA remarkets to the amount of forecast above-RHWM load the customer is expected to have by the end of the purchase period that is not already planned to be served by BPA at a Tier 2 rate or by another

Form  
betwe  
adju  
numb

non-Federal resource. experience over the commitment term (3, 5, or 4 years depending on the timeframe).

**Interactions with other RSS:** For Load-Following customers, this service can be combined with all of the support services described above.

**Pricing:** BPA will credit the customer the amount of remarketed power times a percentage of the ~~forecast-actual~~ Mid-C index monthly average or HLH and LLH average price less any flattening and outage reserve services needed to market the power, although the specific rate design approach will be the subject of a future 7(i) Process. For customers' resources that do not provide capacity, the pricing for this would be similar to that which is used for the PG&E wind exchange, where BPA charges the customer a capacity and energy amount to turn the HLH energy into a flat HLH block that is marketed and exchanged for a LLH block. This LLH block is added to the LLH energy that the resource generated.