

Resource Support Services



Why Resource Support Services (RSS)?

The Regional Dialogue Policy and ROD states:

1. Tier 2 service from BPA will be in flat annual blocks
 2. Any services BPA uses to convert a non-flat resource into a flat annual block will be valued/priced at market
 3. Those “flattening” services will be made available to non-federal renewable resources serving loads above HWM at the same value/price
- Therefore, we need to identify those services and the associated market values and how they will be applied to resources



Resource Support Services

Types of Resource Support Services (RSS)

1. Flattening Services (Diurnal and/or Monthly)
 2. Annual Value Adjustment (AVA)
 3. Forced Outage Reserves (FOR)
 4. Secondary Crediting Service
 5. Resource Remarketing Service
- Resource Support Services will be available under the same commitment periods as the short-term Tier 2 rate (generally a three-year notice with a five-year commitment)



Availability of Resource Support Services

1. All Resource Support Services are available for the dedicated resources of Load-Following customers, although sometimes the services are optional and sometimes they are required.
2. The Flattening Services* and the Forced Outage Service are the only Resource Support Services available to Block and Block/Slice customers and they are only available for dedicated, renewable resources. Both services are always optional for Block and Block/Slice customers.
 - The Flattening Services for Block and Block/Slice customers are still under review and the nature of the service may be revised.



RSS and Existing Resources

1. Customers with existing resources and Subscription's GMS will have the terms of GMS (for those resources) grandfathered into their Regional Dialogue contracts.
 - For instance, if the resource was under 3 MW and did not require GMS under Subscription then the resource will not require RSS.

2. Customers with existing resources that did not use GMS under Subscription will have the Regional Dialogue Resource Support Services applied to their resources.



The Flattening Services: Required or Optional

1. Flattening Services are required if:
 - A load following customer declares an intermittent resource, or a resource with a variable component, to serve load
 - (However, not required if resource is grandfathered into GMS)
 - The flattening services will be applied to a load following customer's variable resource if the resource is greater than 1 MW (nameplate capacity) or if a customer's total variable resource amounts exceed 1 MW (nameplate capacity)
2. Flattening Services are optional if:
 - A Block or Block/Slice customer



Flattening Services: Financial or Physical?

1. Financial if purchased by:
 - A load following customer located within BPA's Balancing Authority (BA)
 - o Financial means the resource is being directly applied to load and BPA is providing load following service which is following the variation of the load and the variation of the resource for the net load
2. Physical if purchased by:
 - A load following customer outside BPA's Balancing Authority
 - A Block or Block/Slice Customer
 - o Physical means the resource is being delivered as a flat resource from the BPA Balancing Authority to the customer



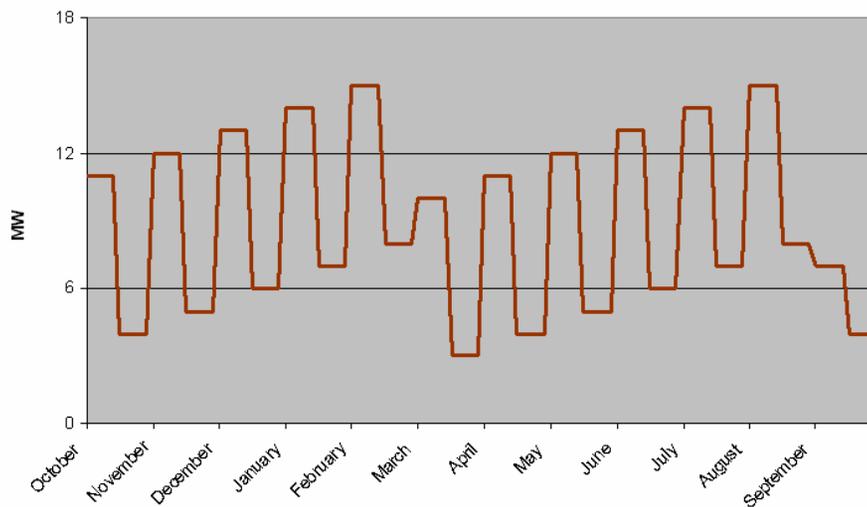
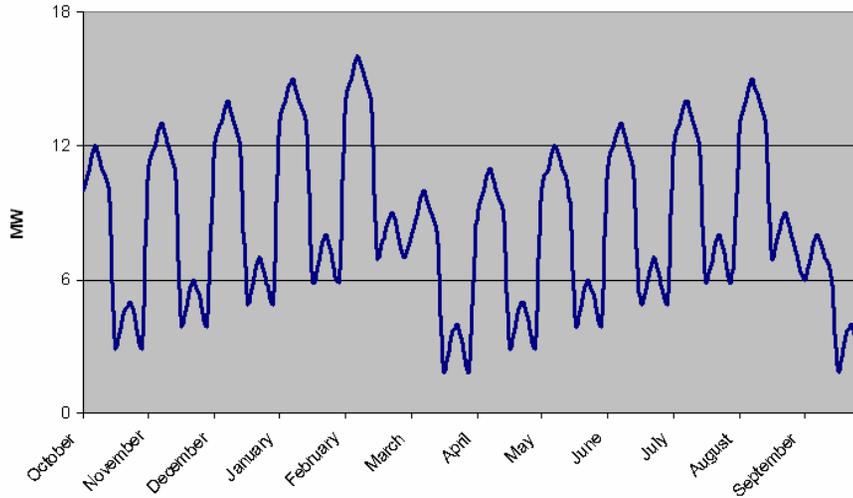
Resource Requirements

1. Resources, needing RSS, that are located outside BPA's Balancing Authority (BA) will have to be scheduled into the Balancing Authority by the customer
2. The customer will be responsible for paying for the transmission used to deliver their resource to BPA's Balancing Authority
3. The customer will have to use Firm transmission to deliver their resource to BPA's control area
4. Resources with RSS will have to be metered and/or scheduled

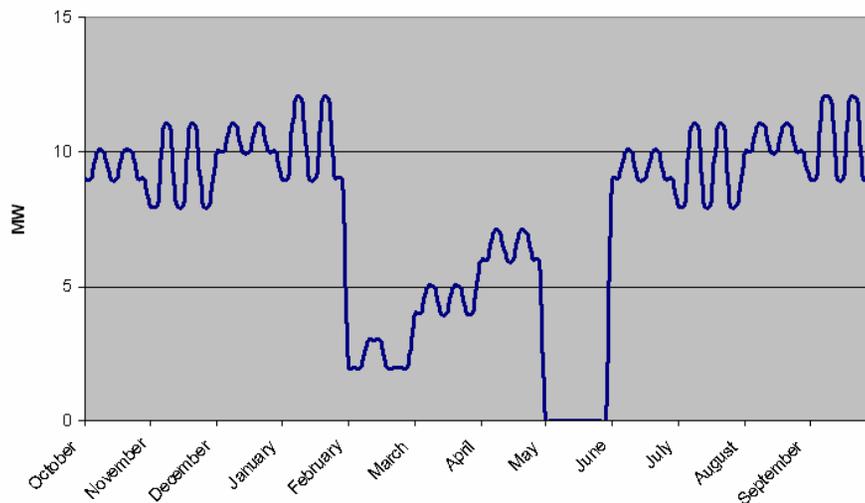


Diurnal Flattening Service

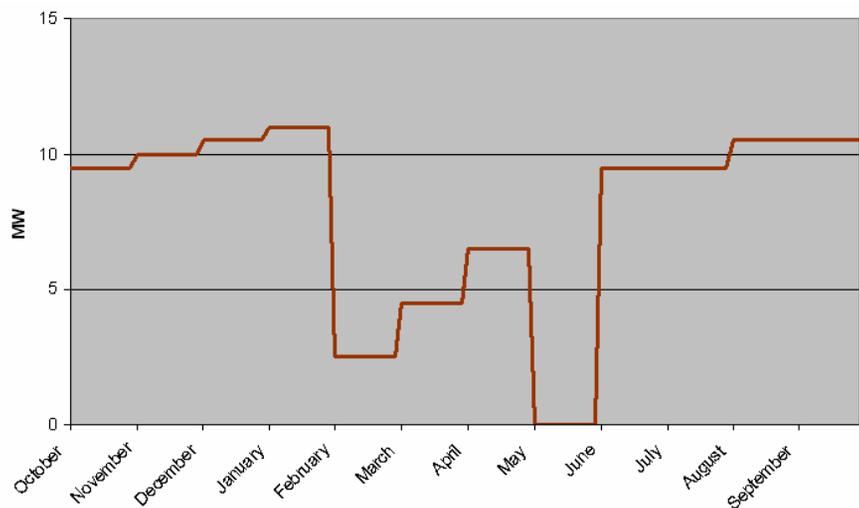
- Diurnal FS flattens an intermittent resource, or a resource with a variable component, into a shape that is flat within the 24 HLH and LLH periods of the year.



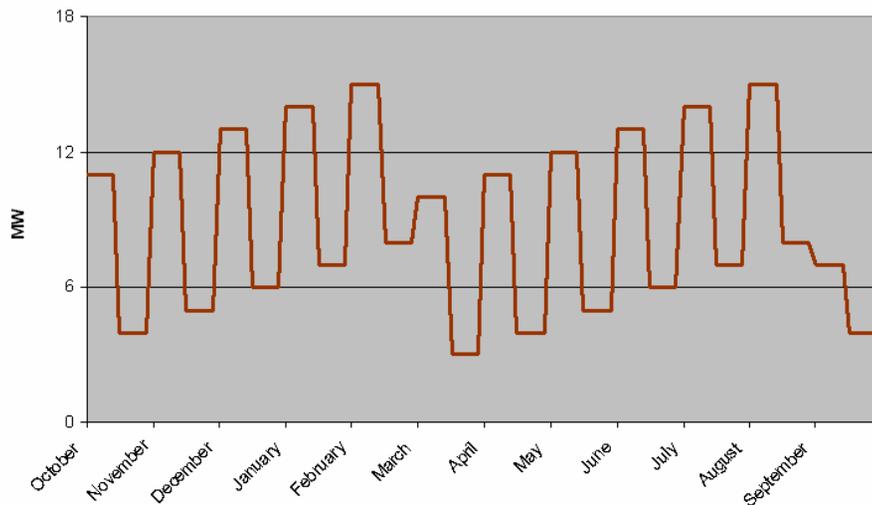
Monthly Flattening Service



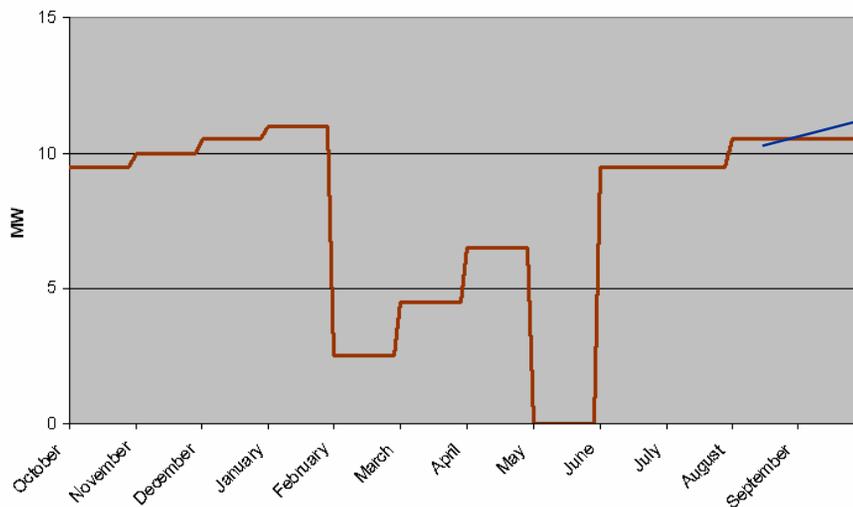
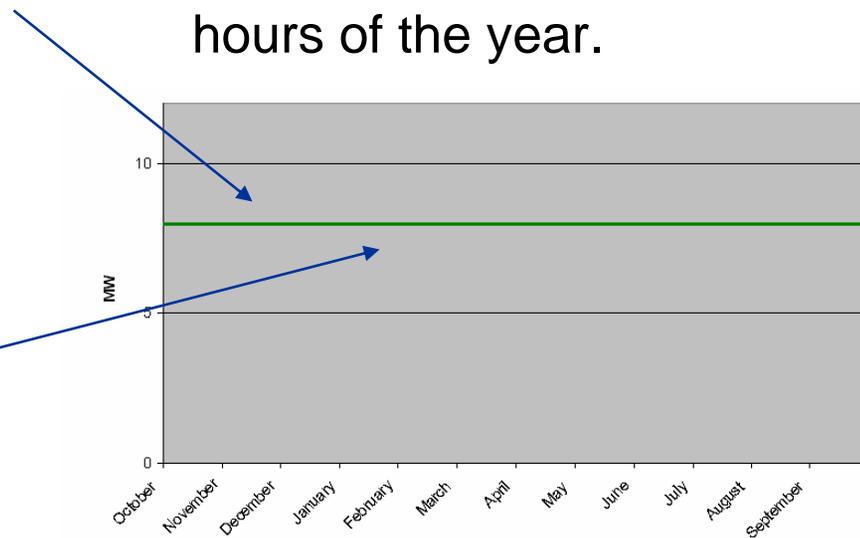
- Monthly FS flattens an intermittent resource, or a resource with a variable component, into a shape that is flat within the 12 months of the year.



Annual Value Adjustment (AVA)



- Annual Value Adjustment reshapes a Diurnal-Flat resource or a Monthly-Flat resource into a resource flat across all hours of the year.



Annual Value Adjustment (AVA)

1. The Annual Value Adjustment (formerly known as the resource shaping adjustment (RSA)) is applied to financially shape a new, diurnal- or monthly-flat resource into a flat annual block
2. For new intermittent resources, or resources with a variable component, AVA will be applied after the Diurnal FS or Monthly FS (whichever is applicable) and Forced Outage Reserves (FOR) has been applied (by BPA or other source)
3. Currently, the Regional Dialogue rate design accounts for the differences in value between month and diurnal periods so there is not a need for AVA as a separate adjustment on a customer's bill
4. AVA will be used to set the Tier 2 rates since the shape of the resources used to set Tier 2 rates will likely not be flat across the year. AVA will also be used if a Block or Block/Slice customer wishes to shape a resource into a flat annual block.



Cost True-Ups

1. The flattening services are energy neutral, meaning the amount of forecast energy that is supported by RSS will equal the amount of energy provided
2. If actual energy is greater than or less than the forecast amount of energy then a cost true-up will be necessary
3. True-ups will occur be billed annually; credits and or charges will be applied to energy amounts above or below forecast amounts and priced at Dow Jones Index market prices (granularity of prices used may be subject to the type of flattening service used)
4. Energy used to meet any shortfalls from the resources will be served out of the FBS system; excess generation from the resource will be deemed sold as surplus



Forced Outage Reserves (FOR)

1. BPA provides reserves that can be called upon at the start of an hour in the event of a resource outage.
2. Requests for Forced Outage Reserve energy must be made at least 30 minutes in advance
3. Customers pay a monthly fee for FOR and pay average monthly Mid-C prices when they take the FOR energy



Secondary Crediting Service

1. Secondary Crediting is only available for load following customers
2. Largely applies to hydro resources but could apply to other resources if critical periods are established for them
3. Customer dedicates firm HLH, LLH, and peak amounts from their resource to load
4. All non-firm generation is also applied to load
5. BPA credits the secondary energy back to the customer at 90% of monthly firm Mid-C averages less any PF charges (provided the amount of energy BPA is remarketing is close to what BPA provides today - otherwise the percentage may drop below 90%)
6. This service would take the place of Service and Exchange and the dedicated resource service



Resource Remarketing Service

1. Resource Remarketing is only available for load following customers
2. Customer purchases a new resource that is greater than its current above-HWM need
3. Customer dedicates a portion of the resource to serve their load above-HWM
4. Additional generation is marketed by BPA
5. Amount of generation marketed by BPA decreases over time as customer grows into their resource
6. The flattening services will be applied to resources using this service. RSS will apply to the portion being dedicated to load and the portion being marketed by BPA.
7. Will need to establish a resource size limit

