



Introduction

This paper attempts to clear up the confusion that was created from BPA's August 28th presentation of the draft Resource Support Service (RSS) paper. This paper aims to provide a clear distinction between the Resource Shaping Adjustment (RSA) and the RSS as well as describe the underlying groundwork of the RSS pricing methodology.

Resource Shaping Adjustment

Definition:

The Resources Shaping Adjustment (RSA) is a charge or credit that adjusts for the value difference between the planned resource energy shape and a flat annual block. If actual generation differs from planned generation and/or if energy is not flat within the 24 HLH and LLH periods of the year, the RSS will need to be provided.

Purpose:

With the intention of creating equity, BPA's July 2007 *Long-Term Regional Dialogue Final Policy* states that resources serving net requirements above a utility's High Water Mark (HWM) will likely be benchmarked off a flat annual block. The RSA attempts to accommodate this benchmark. The RSA charge or credit could be reflected in the Tier 1 rate design (possibly as a load shaping charge) or through its own separate billing adjustment. The RSA is a charge or credit that adjusts for the value difference between a shaped resource that is flat within the 24 periods (monthly HLH and LLH) of the year and a flat annual block.

Who needs RSA:

The RSA is only applicable to load following customers since the shape of non-federal resources delivered to load following customers will impact Tier 1 service. Block and Slice/Block customers have contractual schedules that remain unaffected by resource shape.

Resource Support Service

Definition:

The Resource Support Service (RSS) is a service that financially makes a variable resource (that is dedicated to load) comparable to a resource that generates power in a shape that is flat within the 24 HLH and LLH periods of the year. In other words, RSS addresses the difference between planned and actual generation as well as the difference between flat generation within the 24 HLH and LLH period of the year and generation that is not flat within the 24 HLH and LLH periods of the year. RSS is additive to RSA.

Purpose:

In general, resources do not generate power in a shape that is flat within the 24 HLH and LLH monthly periods; therefore a resource shaping service will need to be purchased by utilities that choose to serve their load above their HWM with non-Federal resources and by BPA for utilities that decide to purchase under BPA's Tier 2 rate schedule. The RSS is a rates concept that allows utilities and BPA to meet their flat block requirements by reshaping resources that are variable within the monthly HLH and LLH periods. RSS is not a transmission integration product, i.e. it does not provide within-hour shaping. RSS will be applied consistently to all resources.



used for firm consumer load service whether it is provided for shaping Federal resources whose costs are allocated to BPA's Tier 2 rates or for a non-federal resource serving load above HWM.

Pricing Construct:

As stated in the *Long-Term Regional Dialogue Final Policy*, the costs of services subject to Tier 2 rate pricing is not supposed to be subsidized by Tier 1 rate costs. Therefore, it is paramount that the cost assumption BPA uses is a non-current FBS resource to approximate the cost of RSS since this service is designed to support Federal Tier 2 and non-Federal resources serving load above HWM. In order to promote self- and third-party provided RSS, BPA is proposing to price RSS at the long-term opportunity cost of new resources and not the short-term opportunity cost of existing resources. Pricing the RSS at the short-term opportunity cost would create price volatility as well as delay the investment in non-FBS smoothing technologies. A number of non-FBS technologies could provide RSS as required by the benchmark shape for non-Federal resources meeting load above HWM and the power BPA sells at Tier 2.

The RSS pricing methodology explores pump storage as its long-term opportunity cost proxy, but technologies on the horizon (i.e. compressed air energy storage, batteries, and flywheels), call and put options, and/or combustion generation (i.e. gas turbine and piston engine) could also be used. BPA took an initial cut at the cost of providing this service with put and call options as well as a gas turbine but these were removed from the RSS draft paper due to their higher cost (according to our initial calculations) and complexity relative to the pump storage approach.

Who needs RSS:

The RSS will need to be provided for all resources serving load above HWM in order to comply with the designated 24 flat blocks as created by the RSA. This service can be provided by Federal or non-Federal sources.

Integration Overlap:

The Wind Integration Action Plan (WIAP) started the process of addressing the integration of wind energy into the Pacific Northwest. The RSS methodology assumes that the RSS will not impact the within-hour operations highlighted in the WIAP. However, it is possible that future wind smoothing technologies used to fulfill the flat annual block requirement for purchases at the Tier 2 rate could also adjust within the hour to help integration. This topic is outside of the Regional Dialogue scope.

Regional Wind Capacity Evaluation:

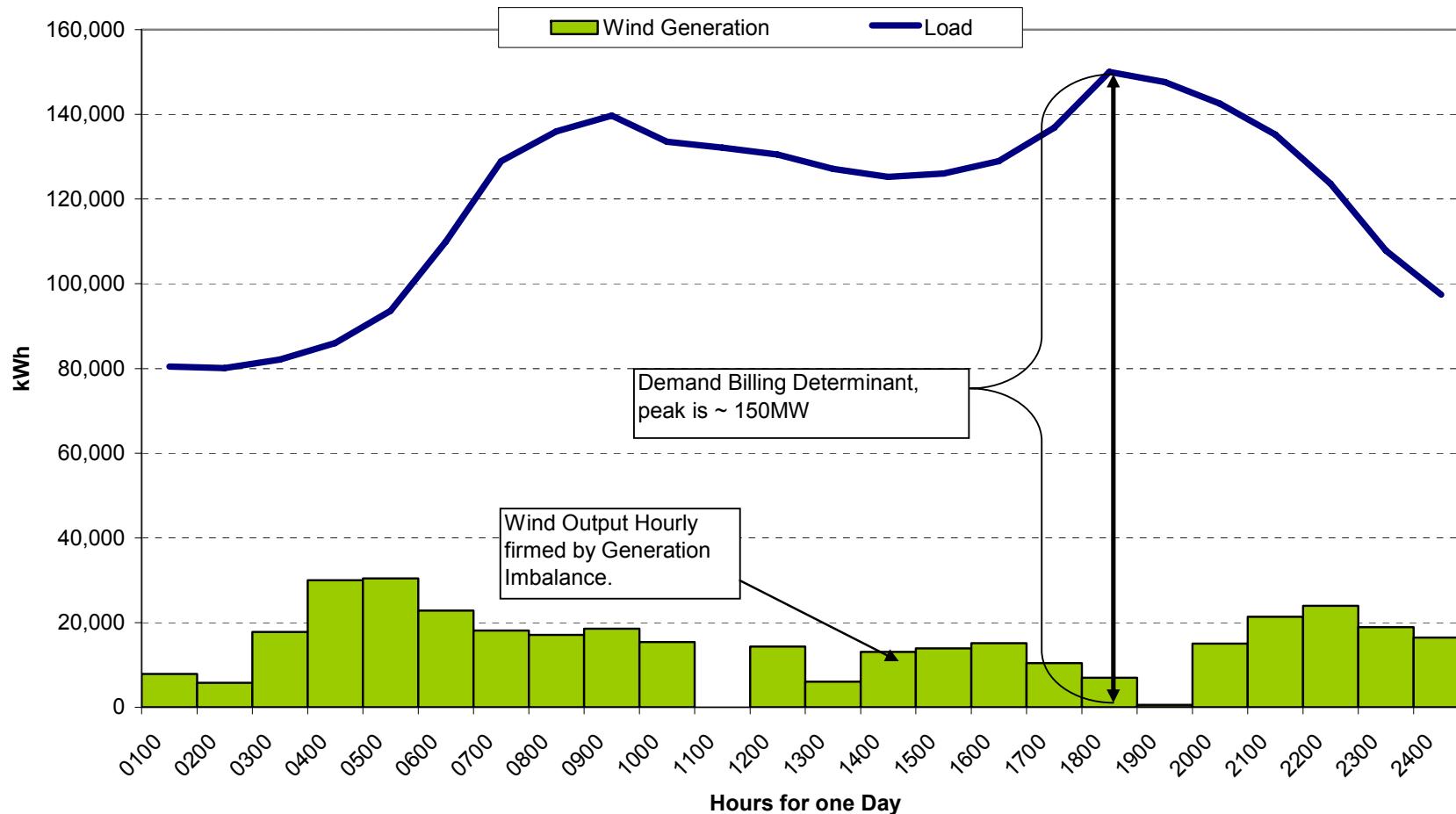
The draft RSS pricing methodology used wind data that had a capacity value of zero. However, the capacity value determined for wind in the regional study may differ from this assumption. Given that the results of the study could be appropriate for use in the RSS methodology, BPA will take the results of the study into consideration.

RSS Firm Capacity and Customer Firm Resource Capacity:

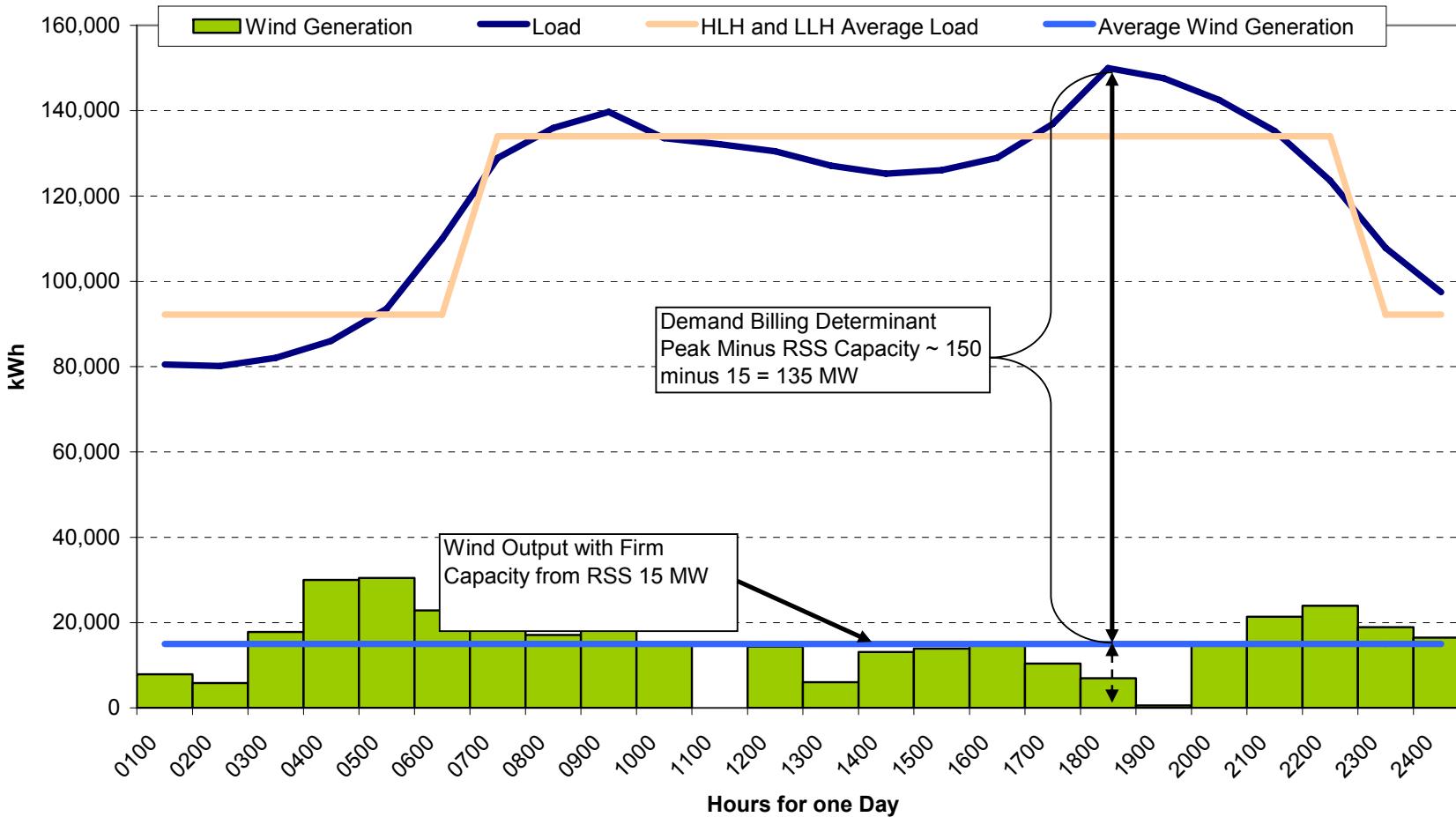
One of the capacity components of the RSS product provides the difference between the hourly generation schedule and the designated block amount. BPA is proposing that this RSS component that provides the designated hourly demand will be priced at the marginal cost-based Tier 1 demand rate. Regardless of the RSS pricing construct, the customer receives credit for the designated block demand because the billing determinant for Tier 1 demand -- a measure of peak usage -- will be reduced by the designated block demand whether the customer buys the RSS product from BPA, or provides it through self- or third-party supply (see attached graphs).



**Current Treatment of Wind Showing the Hourly Load Profile
and the Demand Billing Determinant**



Proposed Treatment of RSS for Wind Showing the Hourly Load Profile and the Demand Billing Determinant



*This assumes no change from the WP-07 Rate Design.