

Slice Product Review Issue Paper  
Draft, Pre-Decisional

**TOPIC:** Resource Integration

**ISSUE:** Should a centralized entity (BPA) be responsible for utilizing the limited FCRPS capability to integrate resources or should this responsibility be shared with individual customers through contract flexibility, such as Slice?

**PBL CONCERNS:** There are 2 services needed for resource integration: Within-hour regulation and imbalance provided by a control area, and hour-to-hour shaping or firming. The current Slice product only provides the hour-to-hour shaping or firming service. Integrating resources into the FCRPS utilizes a portion of system flexibility (capacity). System flexibility is finite and is likely to shrink through time as the system becomes more constrained. How do we incorporate the impact from resource integration into the system capability determination? How do we pro-rate this finite capability among the customers? Would this create inequities among customer groups (Slice / non-Slice), and if so how do we address that issue? PBL is also concerned that the complexity of calculating accurate system limits and the dynamics of the BPA/customer relationship in setting those limits could provide Slice customers a larger proportionate share of the system flexibility needed to integrate resources.

**SLICE CUSTOMER COMMENTS:** The flexibility granted under Slice assists the customers in integrating resources, which is one of the benefits of Slice. BPA should create opportunities and incentives for customers so they become responsible for integrating their own resources, but only to the extent the resource is needed to meet firm load. This would spread the responsibility from one entity (BPA) to many entities.

**NRU COMMENTS:** The flexibility of the FCRPS should be used first to serve net requirements load and second to integrate renewables (which is actually part of the service to load piece). The structure of the slice contract needs to be designed to support that result. It would seem appropriate for the regional dialogue to examine this matter, while we keep the door open in the slice principles for the potential outcome. It may take some time to get a good handle on just how much capability the system has to perform this function, and that should be one of the pieces of information that is part of the dialogue.

**IDEAS TO CONSIDER FOR A FUTURE SLICE PRODUCT:**

**Idea 1:** Similar to the current contract, where the Slice product assists the customers in integrating resources through use of the hourly scheduling rights and storage flexibility to firm and shape the hourly output along with purchasing integration services from TBL or an alternate control area (compatible with product options 2 and 4).

**Idea 2:** BPA could offer standard network integration and firming and shaping products to all customers for integrating non-dispatchable resources. A basic firming and shaping product could exchange actual output for a scheduled output 168 hours later. This product addresses the uncertainty in scheduling changes related to the output of intermittent resources after the preschedule period. Pricing of this basic product would be established in the rate case. The capability to supply this basic product would become an off-the-top obligation that is removed from the Slice system. Revenues from the product would be shared by Slice and non-Slice customers. Any further shaping of hourly output would be a commercial product offered by PBL, Slice customers, or marketers from their share of the FCRPS or other resources (compatible with product options 1 through 4).

**Idea 3:** Same as idea 2, except that BPA would offer a range of resource integration products that could be bilaterally negotiated by BPA (compatible with product options 1 through 4).