

## **Powerex Comments on BPA Southern Intertie Workshops**

Powerex appreciates the opportunity to provide comments in the Bonneville Southern Intertie workshop. The region has made enormous investments in transmission facilities, including the Southern Intertie, and it is vital that the customers that continue to fund those facilities receive the associated benefits. This is necessary both to ensure an equitable outcome for existing investments, and to protect the basic model relied upon by Bonneville to fund its transmission facilities.

On the Southern Intertie, the economic value of Bonneville transmission service has been clearly eroded by the interaction between Bonneville's transmission rates, rules and business practices and those of adjacent transmission providers. Addressing this problem therefore requires changes to those rates and rules, which may be pursued by Bonneville acting independently, or acting in collaboration with adjacent transmission service providers. Collaborative options may offer the best prospects for a durable solution, and may also have the added benefit of potentially enhancing the efficient utilization of the Southern Intertie. But exploration of potential collaborative solutions should be pursued in parallel with—and not instead of—developing effective measures that Bonneville can implement on its own.

Powerex provides comments on the following four areas:

1. Comments on Bonneville's issue statement, as presented at the September 29, 2015 workshop;
2. Option to address excessive IS Firm service during derates;
3. Options to address the impact of IS Hourly Non-Firm service on seams between Bonneville and CAISO; and
4. Options to address the impact of IS Hourly Non-Firm service on seams between Bonneville and adjacent TSPs under an OATT framework.

### **I. Comments on Issue Statement**

At the September 29, 2015 workshop, Bonneville presented the following issue statement:

Customers are increasingly concerned that long-term firm transmission no longer has the value that it once had and some customers are not renewing service and are removing requests from the queue. Some customers also expressed concern that an equitable share of the economic benefits derived from markets served by the Southern Intertie remains with Northwest parties that purchase long-term service over the intertie. BPA wants to see what actions (if any) it should take to make sure long-term service remains viable and its customers receive an equitable share of the economic benefits provided by the Southern Intertie.

While Powerex generally supports this issue statement, Powerex is concerned that the problem is described only as a "customer concern" rather than as a concern shared and recognized by Bonneville. The Bonneville Administrator's Final Record of Decision in the BP-16 rate case proceeding clearly recognized "concerns that policies in California may have devalued long-term firm transmission capacity on the Southern Intertie. I believe that seams issues exist and must be addressed."<sup>1</sup>

During the September 29, 2015 workshop, Bonneville staff also explained that, on the Southern Intertie:

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<sup>1</sup> Bonneville Power Administration, *Administrator's Final Record of Decision*, July 2015, at P-2.

- Customers have **declined to renew** expiring Long-Term Firm reservations;
- Customers in the queue have **declined to commit** to Long-Term Firm service when it was offered; and
- Customers have **withdrawn requests** from the Long-Term Firm queue altogether.

In addition, the presentation by FTI Consulting clearly explained the specific mechanisms that result in IS Long-Term Firm service being increasingly unnecessary or irrelevant in order to deliver energy on the Southern Intertie. This result is supported by actual market outcomes: despite high and frequent price spreads between the Northwest and California—making inter-regional trade more valuable than ever—the vast majority of this value is attributable to CAISO congestion charges and carbon-related costs, with little or none of the value being associated with Bonneville transmission service priority.

Powerex suggests that Bonneville adopt a revised issue statement in which it expressly recognizes that seams issues on the Southern Intertie prevent an equitable allocation of congestion value from being earned by the Bonneville transmission customers that fund the embedded cost of those facilities through their investment in Long-Term Firm service. Beyond the immediate interests of current Long-Term Firm customers, Powerex believes Bonneville should also articulate the broader importance of this issue to all of Bonneville’s power and transmission customers. For instance, as discussed at the workshop, Bonneville’s preference power customers are affected by the inappropriate reduction in the revenues that Bonneville Power Services receives for surplus sales of federal power using its holdings of Long-Term Firm service on the Southern Intertie.<sup>2</sup> Additionally, Bonneville transmission revenues would be adversely affected if the seams issues ultimately result in Long-Term Firm service on the Southern Intertie no longer being fully subscribed.

## **II. Proposed Options**

As explained at the September 29, 2015 workshop, three specific circumstances arise that prevent Bonneville IS Firm reservations from earning an equitable allocation of congestion value on the Southern Intertie. Powerex proposes specific solutions for each scenario, below.

### **1. Excess Availability of Firm Reservations During Derates**

Derates on Southern Intertie facilities result in Bonneville’s Firm service commitments exceeding what can actually flow; the same effective result as if Bonneville had sold Firm service “more than once” in the first place. When derates occur, Bonneville does not prospectively limit the use of each Firm service reservation to reflect these derates. Consequently, the ultimate determination of which schedules on Bonneville’s system will or will not flow is not currently made by Bonneville, but by the downstream transmission provider(s). When downstream transmission providers are left to allocate service between excessive Bonneville’s Firm reservations, the value of Firm service on

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<sup>2</sup> It would be *appropriate* for the amount of revenue that Power Services receives for surplus sales of federal power on the Southern Intertie to be reduced if that reduction is a result of the genuine market fundamentals of supply and demand. However, it is *inappropriate* for a revenue reduction to occur as a result of the flawed interaction of Bonneville’s rates, rules, and business practices, and those of adjacent transmission providers.

Bonneville's facilities is eroded, artificially shifting this value to the entities that obtain service on the downstream facilities.

The magnitude of this issue is substantial. Data presented by Bonneville staff at the workshop shows that the Southern Intertie facilities experience significant derates in a very high number of hours. For example, Bonneville reported that the COI has been derated by at least 10% in 63% of hours, while the PDCI has been derated by at least 10% in 23% of hours.

Powerex proposes that Bonneville develop rules that prospectively limit the schedules that may be submitted on each Firm reservation when a path is derated. For example, if a path is rated to only 75% of its full rating, then schedules on each Firm reservation would be limited to 75% of the reservation's capacity. This practice would ensure consistency between the quantity of Firm transmission service allocated by Bonneville and the actual capability of the facilities, even during the frequent derates that occur on the Southern Intertie. By ensuring that the actual capability of a path is allocated by Bonneville, instead of being ultimately allocated by the downstream transmission service provider, Bonneville can ensure that derates do not undermine the value of Firm service on Bonneville's Southern Intertie facilities.

## 2. Addressing Impact of IS HNF on Seams with CAISO

As explained in the workshop, Bonneville's current approach to selling IS HNF makes it possible for an entity that has not invested in Bonneville transmission service to offer to sell into the CAISO market and be highly confident that it will be able to obtain HNF transmission service from Bonneville if it receives a CAISO award. CAISO confirmed at the workshop that CAISO assumes that sellers receiving a CAISO market award *will* be able to obtain transmission service on external providers' systems, either as HNF or through other means, and that customers need *not* secure transmission service prior to submitting an offer to the CAISO market. The result is that Firm Bonneville service has no effective priority over Non-Firm service in determining who flows to the CAISO during periods of congestion on the Southern Intertie facilities.

### i. Unilateral BPA Options

It may initially appear that the most direct way to prevent entities from relying on being able to obtain IS HNF service from Bonneville would be to not offer that service at all. While highly effective, this may not be a realistic option for Bonneville to pursue at this time. Bonneville could, however, change the manner in which it offers unused Firm capacity as HNF, reducing (but not eliminating) its availability. Specifically, Bonneville could explore the following non-rate measures:

- Continue to offer Firm capacity that is not scheduled as of 10 p.m. the day prior to flow as HNF, but
  - release it only once, not repeatedly throughout the real-time window after 10 p.m. of the day prior to flow; and
  - release it through a process using a simultaneous window and a lottery approach.

This would appropriately reduce the certainty that HNF service will generally be available for purchase to support a CAISO market award, and would also reduce the confidence of any *specific* customer in its ability to obtain the HNF service that Bonneville does offer.

While such steps are potentially beneficial, the effectiveness of these measures is uncertain. In Powerex's view, these non-rate measures are likely to be insufficient on their own to address the problem. This is because such measures do not change the basic interaction at the seams with CAISO: customers with Firm service can still be prevented from using their service due to awards being issued by CAISO to other customers that have not made any investment in Bonneville transmission service at all. Powerex is therefore skeptical that, absent Bonneville completely suspending sales of "unused" Firm capacity as HNF service, the priority of Firm service can be sufficiently restored through non-rate measures alone.

Powerex therefore believes that rate measures will be necessary to ensure that the value of Firm service is not undermined by the prospective availability of HNF service. Put another way, if Bonneville continues to sell both Firm and Non-Firm service on the Southern Intertie, and seams issues with the CAISO eliminate the intended quality difference between Firm and Non-Firm service, then Bonneville's only effective option is to ensure that HNF service is not a low-cost alternative to investment in Firm service. It is entirely appropriate to require that customers that offer to sell into the CAISO market relying on the prospective availability of HNF service pay a rate that reflects (1) the lack of effective priority difference between HNF service and Firm service; and (2) the ability to request and pay for HNF service only in the specific hours in which they transact with CAISO. It is entirely improper to continue to permit customers using HNF service to "cherry pick" the hours they pay for service, while LTF customers are required to pay in every hour of the year, whether they use the service or not, while not receiving any meaningful product quality difference.

Importantly, raising the HNF rate will not reduce the availability of Bonneville transmission service on the Southern Intertie: the full rating of the North-to-South paths has already been fully allocated on a Firm basis, and unused Firm reservations can continue to be sold on the secondary market to other eligible customers, including at rates below the HNF rate. Sufficient incentives and opportunities exist to continue to expect efficient utilization of Firm service on the Southern Intertie, regardless of the level of the HNF rate. In short, claims that a higher HNF rate will reduce utilization should be viewed with considerable skepticism.

There are numerous options for supporting a higher cost-based rate for IS HNF service, including:

- Set the IS HNF rate based on the cost of expansion (\$27.48/MWh), since all existing capacity has already been sold on a Firm basis.
- Set the IS HNF rate under the existing methodology, but spread over 4 hours per day, 5 days per week (*i.e.*, 20 hours per week, as opposed to the current allocation of 80 hours per week). This allocation reflects the hourly nature of the CAISO markets in both preschedule and real-time, and distinguishes the Southern Intertie from service on other Bonneville paths or segments. This would result in a rate of approximately \$15/MWh, which is generally in line with the rates charged by LADWP and TANC for Hourly Non-Firm service on southern

segments of the same facilities. It is also in line with the total of the myriad of charges applied by CAISO to exports from its system to the Northwest.

- Either of the above rate alternatives may also be complemented with a variable discounting framework in which the IS HNF rate is set equal to the CAISO day ahead congestion price at COB or NOB. In other words, Bonneville could choose to discount the IS HNF rate down to the same rate that the CAISO charges for congestion in each hour, at its discretion.

#### *ii. Collaborative BPA/CAISO Options*

The above options all attempt to mitigate or reverse the core features of Bonneville's existing IS HNF service that, due to seams issues, have rendered IS LTF service unnecessary or irrelevant to inter-regional transactions with the CAISO. If effective, these changes will restore Bonneville's role in determining which of its customers receive service on its side of the Southern Intertie, while CAISO would continue to award service on the southern side of the interties without regard to Bonneville's allocation decisions. Customers receiving awards in CAISO markets thus could no longer rely on being assured that they will be able to procure low-cost HNF service on Bonneville's Southern Intertie facilities.

While one way to address the problems experienced on the Southern Intertie is to make service on the northern segments of equal importance (and value) to service on the southern segments, there remains an inherent inefficiency to "splitting" the provision of transmission service on a coordinated path. The uncoordinated provision of transmission service on the two segments may lead to outcomes in which one customer obtains service on the northern segment but is unable to obtain for service on the southern segment, or vice versa. Much of this can be expected to be resolved through bilateral transactions amongst and between the customers that have secured service on the two distinct segments, but to the extent this process is not perfect, then efficient dispatch may not be maximized. This is simply the result of a non-coordinated framework for granting transmission service on what is, in reality, a coordinated transmission facility. While this outcome cannot fairly be attributed to Bonneville's policies or to CAISO's policies, it does mean that collaboration between the two transmission service providers may have the potential to improve the efficiency of use of the COI and PDCI facilities.

For example, a collaborative approach could involve a framework whereby Bonneville provides available transmission service to any participant receiving a CAISO award, and does so at no cost. In other words, rather than reversing the factors that reduce the value of IS Firm service, Bonneville would take them to their logical extreme, by maximizing the availability of HNF service and making it free for deliveries to the CAISO. CAISO's market rules would therefore drive the entire allocation of Bonneville transmission service on such transactions, meaning that the CAISO congestion charges would reflect (and capture) all of the available economic value of transactions between the Northwest and California. Since, under this coordinated framework, CAISO congestion charges would represent congestion over the entirety of the coordinated facilities, CAISO congestion revenues on the COI and PDCI would be explicitly allocated equally between (1) the CAISO customers that fund the embedded costs of the CAISO side of the interties (*i.e.*, CAISO loads); and (2) the Bonneville customers that fund the embedded costs of the Bonneville side of the Southern Intertie facilities (*i.e.*, Long-Term Firm customers).

This approach has multiple benefits. First, it explicitly establishes that the congestion value on the COI and PDCI should be allocated equally to the northern and southern segments. This provides for a more durable and robust framework than Bonneville pursuing unilateral rules whose effectiveness may be potentially eroded by successive countermeasures by the adjacent provider. Second, a coordinated

framework can improve efficient use of the facilities by coordinating service on the two segments of the interties.

A collaborative option may also be highly attractive to CAISO, for at least two reasons. First, it is likely to be viewed as preferable to any of Bonneville's unilateral options, since these may increase the cost of transacting with CAISO, reduce liquidity in CAISO's markets, or both. Second, a collaborative solution is likely to be viewed as preferable even compared to the *status quo*, as it eliminates the incremental hurdle rates that currently apply to reserving and using hourly Bonneville transmission service. CAISO has advocated in numerous other contexts for the removal of hurdle rates to maximize efficient dispatch in general. The elimination of hurdle rates specifically for transmission service may be of particular interest to CAISO as it would remove one of the significant existing barriers to participation in CAISO's 15-minute energy market.

### 3. Addressing Impact of IS HNF on Seams with Other OATT Providers

Unlike seams with CAISO, seams between BPA and other OATT providers are not the result of Bonneville selling "too much" transmission service (*i.e.*, by selling the same capability as both Firm and Non-Firm service), since both Bonneville and the adjacent transmission provider operate under the same general framework. Instead, where both Bonneville and a downstream transmission provider sell total reservations in excess of the scheduling limit, the seams issue is primarily driven by the curtailment procedures that ultimately determine which schedules flow and which ones do not. As explained in the FTI presentation, this determination currently depends entirely on which transmission provider performs the curtailments. If Bonneville performs curtailments, then Bonneville Firm priority is relevant and valuable; if the southern TSP (*e.g.*, LADWP) performs curtailments, then Bonneville Firm priority is not relevant and is not valuable.

As confirmed in the presentation by LADWP, LADWP *always* performs curtailments on the PDCI (under non-emergency conditions) for North-to-South schedules, which is the predominant direction of flow (and value). This means that Bonneville Firm priority is currently entirely irrelevant to avoiding schedule curtailments on the PDCI in the most relevant direction of flows.

#### i. Unilateral BPA Options

This situation can be effectively and immediately remedied by Bonneville issuing curtailments in half of the hours when the scheduling limit is exceeded. For instance, Bonneville could evaluate the need for and issue schedule curtailments promptly at T-20 in every other hour, and defer doing so in the intervening hours, in which LADWP would perform curtailments. With Bonneville and LADWP each performing curtailments in approximately half of the hours, the Firm priority on Bonneville's system will be of similar importance and value as Firm priority on LADWP's system.

#### ii. Collaborative BPA/LADWP Options

An improvement over the above option would be to develop a coordinated framework for curtailments between Bonneville and adjacent OATT providers. A coordinated framework would avoid incentives for each transmission provider to constantly attempt to adjust its curtailment timelines or other practices in order to prioritize its own Firm customers. It would also permit the determination of who performs curtailments to be based on relevant operational considerations.

A coordinated curtailment framework would establish curtailment priority based on the service priority on both the Bonneville transmission segment and the southern segment.

For instance:

- A schedule using Firm (7-F) service on both Bonneville's and LADWP's system would have a combined priority of 14;
- A schedule using Firm (7-F) service on Bonneville's system but Hourly Non-Firm (2-NH) service on LADWP's system would have a combined priority of 9;
- This would be the same priority as a schedule that used Hourly Non-Firm (2-NH) on Bonneville's system but Firm (7-F) service on LADWP's system.
- A schedule using Hourly Non-Firm (2-NH) service on Bonneville's and on LADWP's system would have a combined priority of 4.

If total submitted schedules exceed the scheduling limit, curtailments would be performed according to the combined priority. In the above example, the schedules using Hourly Non-Firm service on both systems have the lowest combined priority, and would be curtailed first. If additional curtailments are necessary, they would be issued equally (pro-rata) among all schedules with combined priority of 9. This approach affords equal value to Firm service from both transmission providers, in every hour, regardless of which provider performs curtailments.