

**Comments of Powerex Corp. on  
External Load Forward Scheduling Rights  
July 13 Workshop**

Submitted by	Company	Date Submitted
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Powerex appreciates the opportunity to submit comments on CAISO’s External Load Forward Scheduling Rights Process workshop on July 13. At the July 13 workshop, there appeared to be broad consensus that a comprehensive long-term framework for scheduling priority on the CAISO-controlled grid cannot realistically be achieved by next summer. However, Powerex believes this stakeholder initiative can beneficially focus on:

- Articulating the broad principles and goals for a long-term solution; and
- Identifying targeted enhancements to the implementation of the current scheduling priority framework to reduce uncertainty and to minimize unnecessary service interruption or curtailment.

**I. CAISO Should Clarify Whether It Will Pursue A Collaborative Regional Solution As Opposed To A Unilateral California Solution For Determining Priority Of Schedules That Flow Across Multiple Transmission Grids**

Scheduling priority on the CAISO-controlled transmission grid arises in the context of source-to-sink delivery schedules that span multiple transmission service providers. For example, the delivery of energy from Northwest resources to CAISO load generally requires transmission service on at least three segments, only one of which is from the CAISO.<sup>1</sup> The delivery of energy from Northwest resources to load-serving entities in the Southwest generally requires service on at least four segments, including a segment of wheeling-through the CAISO grid. Access to transmission service on each of these segments is determined by the respective transmission service provider (“TSP”) for each segment; there is no single entity determining transmission access on the full multi-segment, multi-TSP path.

While an inter-dependence between TSPs can arise for any delivery schedule that crosses one or more “seams,” this issue is particularly acute on the California-Oregon Intertie (“COI”) and the Pacific DC Intertie (“PDCI”) that connect the Northwest to California and to the Southwest. The

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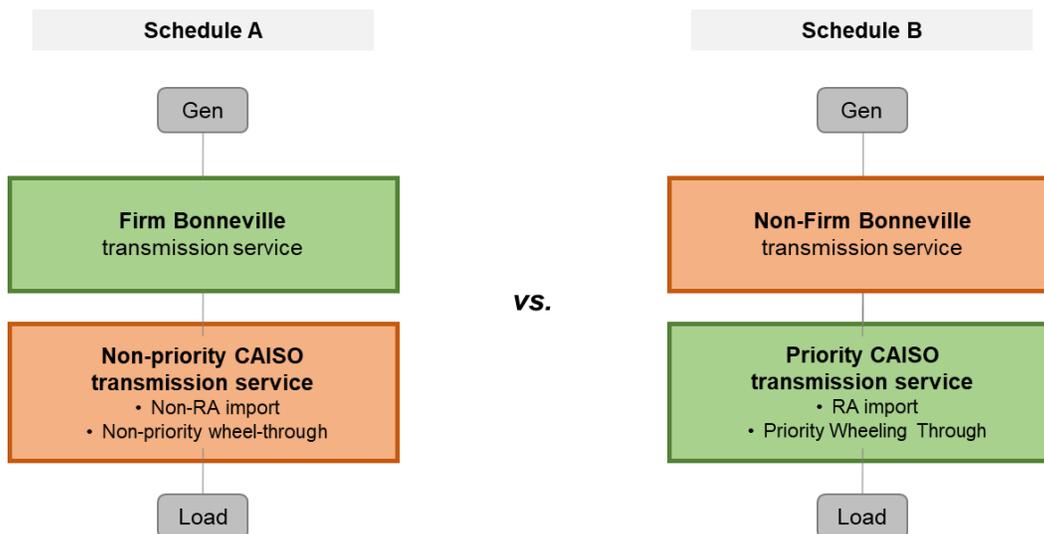
<sup>1</sup> The two additional segments are typically (1) transmission service on Bonneville’s primary transmission network; and (2) transmission service on Bonneville’s Southern Intertie segment. Alternative delivery paths may also include one or more segments on the transmission systems of other transmission providers, such as Puget Sound Energy, Portland General Electric, PacifiCorp, and Los Angeles Department of Water and Power.

COI and the PDCI are large, effectively radial, connections between the regions; they do not simply represent the boundary between two otherwise “meshed” networks or grids, as occurs elsewhere in the west. The ownership—and funding responsibility—for the facilities of the COI and the PDCI was split “horizontally,” into a northern segment and a southern segment, with CAISO ratepayers funding a portion of the southern segment facilities, and with transmission ratepayers of Bonneville Power Administration and other Northwest TSPs funding the northern segment facilities. But this rate responsibility does not alter the fact that each intertie is a single interconnection—electricity cannot flow to the CAISO boundary at Malin or NOB without also flowing on the northern segment from John Day or from Big Eddy.

As the grid has tightened, a key question has arisen: during critically tight conditions, which customers should get to deliver on the full path, and how should this be determined? The answer is straightforward if the same customer holds high-priority service on each of the segments. For example, a customer may have invested in Long Term Firm transmission rights on the Bonneville Southern Intertie from John Day to COB, and may also have scheduling priority on the CAISO grid through registration of an RA import at Malin (or a Priority Wheeling Through schedule with a point of receipt at Malin and a point of delivery at a southwest intertie, such as Palo Verde). In this example, it is clear that this customer should have priority to flow on the COI.

But the answer to “who gets to flow?” becomes less obvious when the deliveries seeking service include different priorities on different segments:

**During critical system conditions, which multi-segment delivery schedule will flow?**



Each TSP (Bonneville and CAISO) could argue that priority on *their* system should govern which schedule is able to flow. That is, Bonneville could argue that Schedule A should flow, while CAISO could argue that Schedule B should flow. This leads to an obvious stalemate since neither schedule has priority on the full path. In practice, it is the specific rules, deadlines, and business

practices of each TSP that determine the “priority that really matters.” And in this regard, the CAISO’s market design—and particularly its recent changes to scheduling priorities—make success in receiving a CAISO award the “priority that really matters” to flowing on these multi-segment paths. In effect, the CAISO market design “steps ahead” of—and renders largely meaningless—the priority afforded by Bonneville (and other northern TSPs) on its segment of the COI and PDCI.

The CAISO achieves this outcome by considering, unlike every other TSP in the west, that its transmission is “used” by those customers that merely receive a market award (e.g. import award at Malin). This drives the obvious outcome of ensuring that those entities that have secured service on the CAISO transmission segment *prevent* other entities—including those that have secured priority transmission service on all other necessary transmission segments—from (1) receiving a CAISO market award, (2) utilizing the CAISO transmission grid, and by extension (3) utilizing their priority rights on the external transmission segments. This market design choice is intended to ensure that it is those entities that receive a CAISO market award that are the entities that ultimately flow on *the entire* multi-segment transmission path—without regard to which entities have secured priority service, and fund, the external transmission segments.

California commenters frequently draw a false equivalence between the CAISO’s priority framework and the OATT framework used by other TSPs in the west, arguing that other TSPs do not consider CAISO transmission priority when granting service on their systems. But these commenters neglect to recognize two key points.

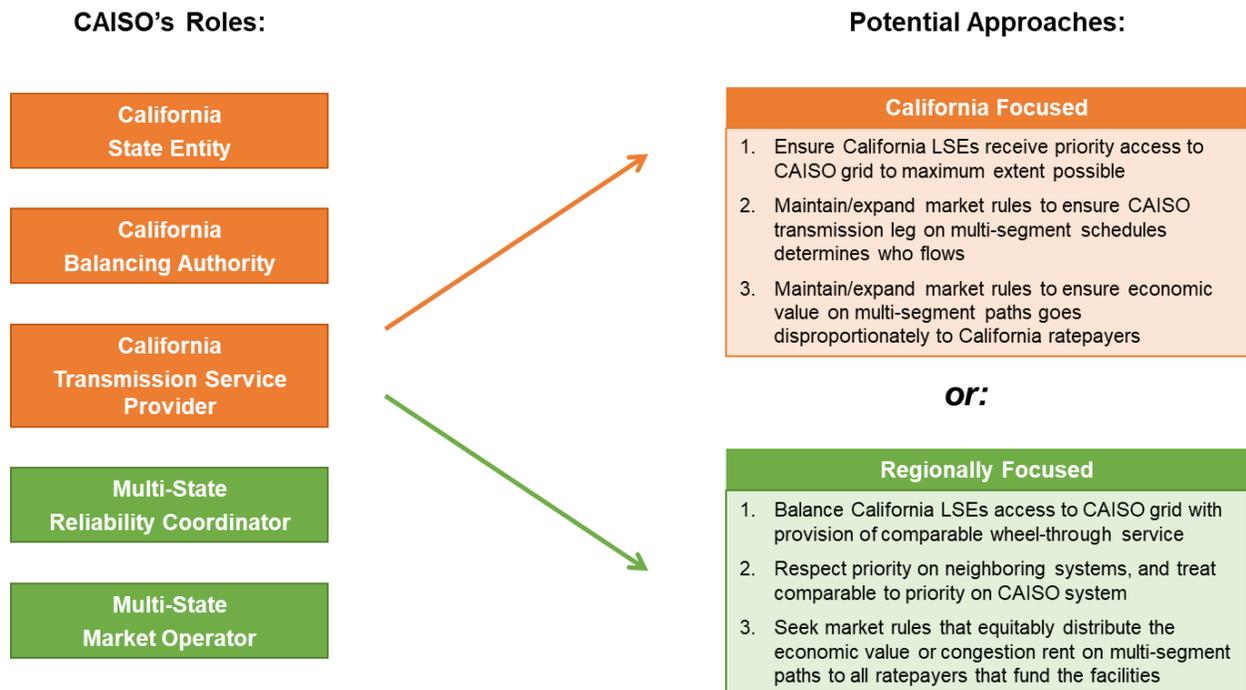
First, other TSPs require customers seeking to utilize their priority access to submit a complete delivery schedule—including demonstrating having procured transmission service on all other segments (including the CAISO)—failing which the transmission capability is available to customers holding a lower-priority reservation. Thus, all TSPs (other than the CAISO) only consider rights on their transmission segment to be “used” when the transmission customer submits a valid e-Tag showing a full source-to-sink delivery path, including identifying the transmission reservation(s) they have secured for each and every one of the *other* required transmission segments.

Second, in Powerex’s experience, if one OATT TSP takes steps to ensure that priority on their system is the only “priority that really matters” on a multi-segment path (e.g., through carefully crafted transmission business practices that nullify the need for priority service on other segments), it can be expected that other OATT TSPs will often respond with modifications of their own to restore the value of priority service on their system.

In short, it is the unique provisions of CAISO’s transmission access that allows entities to preemptively “use” CAISO transmission prior to arranging for any external transmission to deliver to/from the CAISO intertie, making CAISO’s market award the sole determinant of which entities ultimately flow on the entire multi-segment, multi-TSP delivery path. Securing transmission rights on the CAISO segment, through a CAISO market award, determines both (1) which physical schedules will flow on a multi-segment, multi-TSP path; and (2) which of those segments earns the most economic value of an inter-regional transaction.

The critical question in framing this stakeholder process is whether CAISO seeks a long-term framework that continues to make transmission access on the CAISO grid the “priority that really matters,” or whether the CAISO seeks to facilitate a regional framework that is workable for all of the transmission systems needed to enable energy deliveries across the region. The CAISO’s approach in this stakeholder process will reflect which of its multiple different roles and underlying interests will be most influential. Will the CAISO be acting primarily from its role as a multi-state regional market operator, seeking to facilitate a collaborative regional solution and greater regional coordination? Or will the CAISO be acting primarily from its role as a California state entity, California balancing authority, and California transmission provider? The answer will largely dictate the type of solution put forward in this stakeholder process:

### **CAISO’s Approach In This Stakeholder Process Will Reflect The Primary Goal It Is Seeking To Serve**



Which approach the CAISO pursues will have major implications for the ratepayers and TSPs that provide transmission service on systems outside the CAISO, and particularly on the northern segments of the COI and PDCI. A “California-focused” approach would leave ratepayers outside the CAISO balancing authority area responsible for funding transmission facilities, but with a greatly diminished share of the economic and reliability benefits associated with the use of those facilities:

"California-Focused" Approach			
	Fund Transmission Facilities?	Receives Economic Benefit?	Receives Reliability Benefit?
External Firm Rightsholders	Yes	No	No
CAISO Priority Schedules	Yes	Yes Disproportionate Share	Yes Disproportionate Share

*It is **not sustainable** to expect customers to bear the cost of transmission facilities without receiving an equitable share of economic and reliability benefits*

**vs.**

"Regionally Focused" Approach			
	Fund Transmission Facilities?	Receives Economic Benefit?	Receives Reliability Benefit?
External Firm Rightsholders	Yes	Yes Equitable Share	Yes Equitable Share
CAISO Priority Schedules	Yes	Yes Equitable Share	Yes Equitable Share

*A **sustainable** framework aligns cost responsibility with equitable participation in economic and reliability benefits of facilities being funded*

To be sure, a "California-focused" approach would be highly beneficial to CAISO loads, which will continue to be preferentially served during critical system conditions, and to CAISO load-serving entities, who collect the economic value of inter-regional trade through increased CAISO congestion revenues. Unsurprisingly, participants at the July 13 workshop representing California interests strongly supported extending the newly-approved framework, and voiced clear opposition to the CAISO taking any steps that deviated from a "California-focused" approach. There appeared to be clear opposition to even discussing the priority of transmission service on external transmission systems.

But the CAISO and stakeholders should recognize that a "California-focused" approach will be highly problematic for the TSPs and ratepayers on the other transmission segments that are necessary to support deliveries that serve CAISO load or load in Southwest areas. Transmission customers that have invested in procuring priority transmission service will find that they receive little, if any, of the reliability or economic benefits associated with that priority, while the TSPs that rely on the sale of long-term Firm service to fund their systems may ultimately face significant erosion of their ability to recover their costs. The CAISO's pursuit of a "California-focused" approach will mean that those transmission customers and TSPs outside of the CAISO will need to pursue new solutions, through alternative non-CAISO stakeholder processes, to ensure that priority service on their transmission systems is not undermined.

Powerex does not suggest that the CAISO is required to consider other TSPs when developing its own tariff. To the contrary, a "California-focused" approach would be fully consistent with CAISO seeking to maximize the reliability and economic benefits to CAISO ratepayers—in its role

as a California TSP, California BA, and California state entity—and FERC appears to have largely approved some of the key tools that would allow CAISO to extend this approach.

Powerex does request, however, that the CAISO clearly articulate whether it intends to extend this “California-focused” approach, or whether it intends to pursue a collaborative regional framework to provide equitable access to transmission service over the multiple segments and multiple TSP areas necessary to enable inter-regional electricity transactions. CAISO should provide this foundational clarification of its approach so that stakeholders located outside of the CAISO can determine the level of resources and engagement to invest in this stakeholder process, and to evaluate the need to take alternative measures.

## **II. Near-Term Enhancements To Increase Transparency And Reduce Unnecessary Curtailments**

The July 13 workshop included valuable discussion regarding enhancements to the current scheduling priorities that could be implemented by Summer 2022. These enhancements are not intended to alter the basic premise of the scheduling priorities that were approved by FERC in late June, but rather to make improvements to the manner in which those priorities are implemented. Powerex proposes potential enhancements to address two challenges associated with the implementation of the new scheduling priorities:

1. Market participants may face significant uncertainty regarding the risk that wheel-through self-schedules at a particular intertie will be interrupted or curtailed; and
2. The CAISO’s real-time curtailment process may allocate CAISO transmission capability to import offers that do not or cannot physically deliver energy, resulting in unnecessary curtailment of real, physical RA Imports or Priority Wheeling Through schedules.

Powerex outlines a proposed enhancement to address each of these challenges below.

### *1. Increase transparency on availability of wheeling-through service*

The new scheduling priorities expose both wheeling-through self-schedules as well as RA imports to the risk of curtailment during critical system conditions. RA imports and Priority Wheeling Through schedules may face curtailments under the new post-HASP process, whereas other wheeling-through self-schedules may be involuntarily displaced by imports needed to serve CAISO load in both the IFM and RTM. Uncertainty regarding the likelihood or magnitude of curtailments creates impediments to efficient and competitive wholesale electricity transactions, and should be reduced to the extent possible.

Powerex believes that market participants will be better positioned to gauge the risk of curtailment of RA imports or wheel-through self-schedules if the CAISO provides additional information regarding the monthly volume of registered high-priority resources. By 45 days prior to each month (T-45), the final quantity of registered RA imports and registered Priority Wheeling Through resources will be known. Publishing these final T-45 quantities for each intertie will enable market participants to:

- Evaluate the likelihood and extent of potential curtailments to RA imports during stressed conditions;
- Evaluate the likelihood and extent of potential curtailments to Priority Wheeling Through schedules; and
- Identify interties with relatively low quantities of registered high-priority uses, and hence that may be able to accommodate non-RA imports and/or non-priority wheel-through self-schedules with a lower risk of curtailment than at highly-subscribed interties.

Powerex also recommends that the CAISO consider publishing this type of information *prior to* T-45, notwithstanding that the values remain subject to change. Market participants could incorporate evolving information on the high-priority uses already registered at an intertie to proactively adjust import RA contracts and/or Priority Wheeling Through arrangements to interties that have remaining “priority capability.”

As discussed at the July 13 workshop, Powerex’s recommendation extends only to publishing the aggregate volume of registered import RA contracts and Priority Wheeling Through transactions at each intertie for each month. This aggregate reporting should avoid any concerns regarding the disclosure of commercially sensitive information that may be raised if the information were further broken down by seller, purchasing LSE, or other details.

## 2. *Minimize unnecessary over-curtailment*

The post-HASP curtailment process reduces the quantity of wheeling-through self-schedules in order to increase the quantity of RA import schedules (relative to the HASP solution). While this policy was divisive, there should be broad agreement that curtailing a schedule is unambiguously inefficient if the schedule taking its place fails to perform. When this occurs, transmission will not be fully utilized despite the availability of economic supply. This outcome would be inefficient under any circumstance, but it is particularly concerning during critical system conditions, when maintaining reliability depends on delivering every available megawatt to load.

The potential for such inefficient curtailment is particularly high in the case of California RA imports. As has been widely recognized in multiple forums and proceedings, import RA contracts may represent “paper capacity” where the seller does not have supply or transmission service associated with the RA obligation. Instead, the seller is speculating on the ability to find supply at the last minute if they happen to get a CAISO market award. CAISO operators therefore face a material risk that paper capacity import RA contracts will fail to deliver, but this will not be known until 20 minutes prior to flow (*i.e.*, the current e-Tagging deadline in real-time). Under current CPUC and CAISO RA rules, there is no way for the CAISO to identify in advance whether an RA import is backed by supply and transmission to be able to perform, or whether it represents paper capacity with an elevated risk of non-performance.

The risk of non-performance of paper capacity import RA contracts leads to a risk that the post-HASP allocation process—and the curtailments associated with that process—will lead to the preemptive curtailment of a real, physical import RA resource and/or a real, physical Priority Wheeling Through schedule, in order to allocate transmission capability to a different schedule

that fails to perform. This risk is most likely to occur during the stressed system conditions that are at the root of this stakeholder process, since those are the conditions when spot market supply can be expected to be least likely to be available to backfill a seller's speculative sale. Of course, those are the very conditions when any delivery failure poses the greatest risk to reliable service to load.

To protect against such patently inefficient and undesirable outcomes, Powerex believes that CAISO should explore modifying its procedures such that any curtailments to priority schedules (*i.e.*, RA imports or Priority Wheeling Through schedules) occur only once the CAISO has confirmed the physical supply and transmission arrangements of the schedules seeking transmission service. That is, curtailments are issued only after the CAISO has received valid e-Tags for the priority schedules. This has two important benefits:

1. **The CAISO will only issue curtailments to the extent that verified physical schedules exceed CAISO transmission capability.** For instance, if the CAISO has cleared 1,300 MW of high priority awards on a path with only 1,000 MW of transmission capability, the current approach would require the CAISO to curtail 300 MW of these priority awards. But if only 1,100 MW are able to submit an e-Tag—*i.e.*, 200 MW could not physically deliver on the award in any event—then the CAISO needs to curtail just 100 MW. In effect, the first “round” of schedule reductions is to those awards that are not able to physically deliver.
2. **The schedules that remain after curtailments will have a high likelihood of physical delivery**, ensuring the maximum utilization of the transmission system and minimizing the risk that scarce transmission will be stranded by being allocated to a schedule that does not deliver.

Powerex believes that the most effective way to achieve this objective is to require all priority schedules—both RA imports and Priority Wheeling Through schedules—to submit a day ahead e-Tag. For RA Imports, the energy quantity could be set equal to the IFM award and the transmission profile equal to the incremental real-time must-offer quantity. A key feature of this approach is that it would provide CAISO operators with the maximum amount of time to take any actions that may be necessary in light of information regarding the potential for delivery failures (as indicated by a failure to submit a valid day-ahead e-Tag). CAISO operators will have a far greater set of options available to them if they are aware of the need for action more than 20 minutes before the delivery interval, which is currently the case.

Requiring a day-ahead e-Tag for RA imports and for Priority Wheeling Through schedules would also be straightforward. It is standard practice across the west outside of the CAISO for day-ahead and forward transactions to be e-Tagged on a day-ahead basis. Hence most, if not all, external suppliers should have little difficulty extending this existing e-Tagging practice to deliveries into or through the CAISO grid.