



Department of Energy

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CAISO 2019 Policy Initiatives Catalogue Bonneville Power Administration Comments

Submitted by	Company	Date Submitted
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Bonneville Power Administration (Bonneville) appreciates the opportunity to provide California Independent System Operator (CAISO) comments on its 2019 Policy Initiatives Catalog. Bonneville supports CAISO's addition of initiatives that will increase California's cost-effective supply of highly flexible resources through good market design. Bonneville looks forward to working with CAISO on these initiatives, which address the time frame of resource commitment, clarify with more specificity the need for flexibility, and compensate capacity resources for standing ready to meet these flexibility needs similar to ancillary services. These initiatives address key issues that enhance Bonneville and other Northwest entities' abilities to help provide flexible, low-carbon hydroelectric power to California in a manner that better balances our contribution to more reliably integrating renewable energy for California with our systems' reliability, hydraulic and environmental obligations in the Northwest.

Bonneville appreciates the CAISO's efforts to pursue a balanced outcome in this prioritization effort. A balanced outcome advances generation and transmission liquidity in the Energy Imbalance Market (EIM) and the CAISO and initiatives impacting the Fifteen Minute Market (FMM) and Real Time Dispatch (RTD) for the entire CAISO footprint and, achieves a sound and reasonable underlying policy that would diminish the need for administrative pricing.

Bonneville is a federal power marketing administration within the U.S. Department of Energy that markets electric power from 31 federal hydroelectric projects and some non-federal projects in the Pacific Northwest with a nameplate capacity of 22,500 MW. Bonneville currently supplies 30 percent of the power consumed in the Northwest. Bonneville also operates 15,000 miles of high voltage transmission that interconnects most of the other transmission systems in the Northwest with Canada and California. Bonneville is obligated by statute to serve Northwest municipalities, public utility districts, cooperatives and then other regional entities prior to selling power out of the region.

This comment first addresses those initiatives identified by the CAISO as Discretionary Initiatives. It then provides comments on initiatives currently underway and planned a number of which Bonneville believes are important to continue through to completion.

Discretionary Initiatives

4.2 EIM Greenhouse Gas Enhancements (D, E1)

Bonneville understands that the CAISO has indicated this project is complete. The implementation of CAISO's approach to limit the GHG bid quantity of EIM participating resources will help minimize the identified secondary dispatch issue. However, Bonneville urges the CAISO to continue working with the California Air Resource Board to resolve the remaining secondary dispatch. Moreover, the appropriate approach for addressing secondary dispatch in an expanded day-ahead market needs further attention in that stakeholder process.

4.8 EIM Offer Rules - EIM Resource Sufficiency Evaluation (D, E1)

HIGH PRIORITY. Bonneville appreciates the CAISO's commitment to continue to assess potential improvements to the real-time resource sufficiency evaluation, to discuss possible policy changes to the real-time resource sufficiency evaluation as part of the Day-Ahead Market Enhancements (DAME) initiative, and to evaluate needed changes to the real-time resource sufficiency evaluation as a result of the development of the Extended Day-Ahead Market (EDAM). These evaluations and discussions are needed to determine if the real-time resource sufficiency tests are performing as intended and whether improvements are needed in light of the EIM's growth and the enhancements being considered for the CAISO's day-ahead market.

Given the complexity and importance of the resource sufficiency evaluation, and the lack of a clear understanding amongst stakeholders, and EIM participations, of the inner workings of the resource sufficiency tests, Bonneville encourages the CAISO to develop a standalone Business Practice Manual or a distinct document that explains in as much detail as possible the mechanics and particulars of the resource sufficiency tests. Bonneville believes that a detailed document would reduce the ambiguity surrounding the resource sufficiency tests, allowing EIM participants to replicate the tests and make better market and operational decisions.

In addition, Bonneville believes that the CAISO should evaluate the real-time sufficiency performance and potential enhancements separately from other initiatives. Bonneville urges the CAISO to conduct an in-depth quantitative and qualitative evaluation of the real-time resource sufficiency performance prior to and independent of the DAME or EDAM initiatives. Such an evaluation would reveal what enhancements are needed to the real-time resource sufficiency tests, whether these enhancements require policy or tariff changes or not, and better inform any resource sufficiency improvements pursued within the DAME or EDAM initiatives. Bonneville looks forward to participating in meetings the CAISO organizes to discuss possible methodologies for evaluating the performance and enhancements of the real-time resource sufficiency tests, as well as participating in the DAME initiative.

6.1.6 EIM Base Schedule Submission Deadline (D)

PRIORITY for 2019. As the catalog indicates, “This initiative was added to the catalog by the CAISO in July 2018. Current financially binding base schedules are finalized by the EIM entity Scheduling Coordinator at T-40. The final hourly resource sufficiency evaluation is performed and EIM transfers are frozen in the event the tests fail. This initiative would examine moving the final base schedule submissions closer to the operating hour, for example T-30.”

Bonneville generally supports procedural improvements that provide EIM Entities with sufficient time and greater certainty of the requirements needed to pass the resource sufficiency evaluation. Bonneville also supports the “shorter lead time” aspect of this initiative, especially if it mitigates existing seams between the current FMM and RTD timelines (i.e. t-57.5 minutes) and the timelines of the bilateral scheduling windows, including those timelines that Open Access Transmission Tariff transmission providers implemented under FERC Order 764 (i.e. t-20 minutes).

6.1.9 Multi Greenhouse Gas Area (D)

HIGH PRIORITY. As the catalog indicates, “...this initiative would explore how the CAISO would incorporate different greenhouse gas rules into the market.”

Bonneville supports a high priority for this initiative. Given the potential for additional jurisdictions to incorporate a price on greenhouse gases (GHG) in the near future, Bonneville believes it is prudent for the CAISO to begin exploring how to scale or otherwise incorporate into the market a GHG compliance obligation in additional state(s). Beginning this initiative early is imperative to ensuring that a state is able to design the compliance obligation for a particular program with knowledge of how the market will be able to incorporate GHG compliance obligations for a given state and GHG reduction program.

6.1.12 Market Settlement Timeline Transformation

PRIORITY for 2019. The CAISO states that this initiative “would explore options and other methodologies to remedy current settlement construct alignment with CAISO’s processes” and that the CAISO “recognizes that current timelines are problematic given the rapid expansion to CAISO markets and introduction of new products in recent years.” Bonneville generally supports improvements to the market settlement timeline but asks for clarity about the timing and scope of this initiative.

6.1.14 Limiting EIM Energy Transfer System Resource Transfers (D, E1)

PRIORITY for 2019. As the catalog indicates, “This initiative would explore limiting the magnitude of inter-interval changes to transfers of power dispatched by the EIM between EIM balancing areas. Idaho Power Company states that that large transfer changes between intervals has the potential to cause reliability issues.”

Bonneville supports controls on the EIM flows both within EIM balancing areas and between EIM balancing areas to sustain reliable grid operations. Bonneville and the CAISO have worked to implement rate of change constraints on the Bonneville system and this initiative appears to have a similar objective.

6.1.33 Enhancing Participation of External Resources (D, E1)

PRIORITY for 2019. As the catalog indicates, “This initiative would investigate potential EIM enhancements to allow participation of resources in balancing authority areas that have not joined the energy imbalance market. The proposed changes will ensure that external participation is complementary and compatible with bilateral trades. In addition, the external resources will need to meet similar requirements of EIM participating resources. Such as locational bidding of a physical resource, modeling of resource characteristics, telemetry, and metering to enable accurate modeling of physical flows, congestion management, and ensure feasible dispatches. These external resources will need to be subject to market power mitigation procedures and make transmission available to exclusively accommodate its maximum bid range. Lastly, rules will need to be developed to address potential leaning by extending the resource sufficiency evaluation to external participation.”

Bonneville supports a 2019 priority of this initiative. External generation resources can greatly enhance the value provided to the EIM Entities and the CAISO by lowering the cost of imbalance energy. Bonneville continues to support this initiative. Bonneville believes that an appropriate first step would be to begin with a stakeholder workshop to fully identify areas to address in the initiative. This initiative could allow for more efficient and effective integration of external resources into the EIM Area, which can lower prices and reduce incidents of market power findings, but also better support security constraints in the dispatch, more accurately model transmission and improve congestion management for all parties.

6.1.34 Potential EIM-wide Transmission Rate

HIGH PRIORITY. “This initiative would develop and design evaluation criteria to assess the merits of alternative transmission service rates for transmission compensation in the EIM.”

This initiative is a high priority for Bonneville. When the EIM was initiated with no transmission charges, CAISO and PacifiCorp committed to “further study the issue of EIM transmission charges based on actual data from the EIM after a period of operation.”¹ Given the number of years the EIM has been in operation and the number of EIM Entities that have joined the EIM since 2015, the time has come to address the issue of an EIM-wide transmission rate.

6.1.36 Equitable Sharing of Wheeling Benefits

HIGH PRIORITY. “This initiative would evaluate wheel-through transactions occurring throughout the EIM area. A wheel through is a transaction in which an EIM Entity facilitates a transfer without sourcing or sinking energy. When a wheel through occurs, the entity “in the middle” receives no direct financial benefit even though they facilitated the transfer. This initiative will also investigate the need for compensation when net wheeling occurs.”

This initiative is a high priority for BPA. When this initiative was considered in 2017, it was determined that EIM entities were not significantly negatively impacted by wheel-throughs. However, given EIM expansion, this initiative should be revisited.

¹ PacifiCorp, Docket No. ER14-1578-000, Filing for Revisions to the OATT to Implement the Energy Imbalance Market, March 25, 2014, page 4.

6.1.39 Hourly Bid Cost Recovery Reform (D, E2)

PRIORITY for 2019. As the catalog indicates, “The CAISO implemented market changes in 2014 that separated bid cost recovery calculations and payments between the day-ahead and real-time markets. This initiative would break the bid cost recovery review horizon further in real-time which is in line with the Market Surveillance Committee’s opinion on the bid cost recovery rule changes wherein it suggests that "separable decisions" should receive separate bid cost recovery. One possibility is to afford separate bid cost recovery to separate commitments of short-start units in the real-time market.”

Bonneville supports a 2019 priority of this initiative for economic real-time markets. Bonneville believes that making bid cost recovery consistent with bidding time horizons would improve real-time market liquidity.

Initiatives Currently Underway and Planned

5.2 Flexible Resource Adequacy Criteria and Must Offer Obligation Phase 2 – FRACMOO2 (I, C)

HIGH PRIORITY. The CAISO has indicated that flexible resources will be critical to the integration of additional renewable resources. The treatment of FRACMOO2 in the 2019 Catalogue is not clear in terms of scope or timing. FRACMOO2 is important to the CAISO’s operations, to Bonneville, and to other northwest hydro entities. If capacity payments are made to reflect the opportunity costs of such operation, coordinated operation of hydroelectric generating plants can effectively address net load ramps brought on by the increasing penetration of renewable resources. We look to this initiative to explain the objectives driving any limitations for external resources providing flexible RA.

5.3 Day-Ahead Market Enhancements – Day-Ahead Flexible Ramping Product (I, D, E2)

HIGH PRIORITY. The CAISO has indicated that “this enhancement will allow a day-ahead flexible ramping product (in both the upward and downward directions) to be procured in the day-ahead and real-time market.” The 2019 Catalog goes on to say that this initiative “will be completed in 2019.” Bonneville strongly supports a high priority for this Day-Ahead Flexible Reserve Product stakeholder initiative with full transparency of the deliverability of such resources during bid evaluations. The CAISO has a growing need for flexibility to meet the net load ramps and over-supply issues caused in part by the increasing amount of renewable generation being built in California. Currently, northwest hydro generation is providing a limited amount of within hour flexibility to the CAISO. The flexibility of northwest hydro generators is under-utilized by the CAISO due to a combination of physical limitations and current market rules that result in inadequate economic incentives. This initiative has the opportunity to better describe an uncertainty requirement in the day-ahead timeframe, align market rules with that uncertainty requirement, and provide a day-ahead market capacity payment to incent flexible resources to sell ramping capability that needs to be available to address uncertainty in subsequent market runs to meet operational objectives.

5.7 Inertia Deviation Settlement (D)

HIGH PRIORITY. As the catalog indicates, “The current “decline charge” for undelivered imports or exports was put into place to provide an incentive to deliver imports and exports when dispatched by the real-time market. The decline charge penalizes undelivered imports or exports to the extent they exceed a threshold amount over each month. Because of recent operational and market concerns with undelivered imports and exports, this initiative will examine if the current structure of the decline charge should be changed. The goal of this initiative is to ensure operational reliability by incentivizing intertie resources to deliver energy that has been awarded.”

Bonneville supports investigation of business practices that can better ensure the physical delivery of awarded energy. However, this initiative should also consider application of penalties if physical energy delivery was different from awarded energy pursuant to reliability actions taken by the transmission operator of the source Balancing Authority Area (e.g. energy flowing on firm transmission and schedules reduced, frozen or cut by transmission operator) rather than pursuant to an intentional action of a seller that did not acquire sufficient energy to fulfill their awarded energy when it was no longer in their commercial interest. This initiative should also consider the underlying policies for how imports and exports are awarded, tagged and delivered rather than narrowly focusing on the structure of the “decline charge”.

5.8 EIM Identified Market Power Mitigation Enhancements (D, E4)

HIGH PRIORITY. As the catalog indicates, “The EIM Offer Rules stakeholder working groups discussed this topic and CAISO management initiated a separate initiative. Formerly known as EIM Default Energy Bid Option or EIM Mitigation, this initiative will holistically review the need for additional EIM default energy bid options, reference level adjustment request changes, changes to the competitive LMP, and EIM mitigation issues. The potential market design changes are not specific only to the EIM.”

Bonneville appreciates the CAISO’s willingness to conduct a formal stakeholder initiative on exploring revisions to its market power mitigation (MPM) process and default energy bid (DEB) formulation. Both are important considerations for centrally-cleared wholesale markets in achieving equitable and efficient market outcomes, and have the potential to significantly affect participation from generating resources.

Bonneville’s market offers (and bids) are heavily influenced by the risk-informed, expected operational and commercial impacts that may result from a market award. As such, Bonneville found particular interest in the conduct and impact test concepts and the distinction between the presence of market power and the exercise of market power. Addressing this distinction in implementing MPM incents participation from resources that are valued highly in the market dispatch and yields market outcomes that are more economic and reliable. Overly frequent mitigation – over-writing market offers – due to the mere presence of market power, without assessing whether market power is being exercised, breaks the intended linkage between the offers of market participants and their constraints and risk preferences. It also subjects end-use customers to long-term costs and risks resulting from the perceived presence of market power. Bonneville looks forward to deeper discussions on the natural tensions between protecting against the exercise of market power and preserving the intent of hydro-based market participants.