



Department of Energy

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CAISO EIM Offer Rules Technical Workshop, July 19, 2018 Bonneville Power Administration Comments

Submitted by	Company	Date Submitted
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Bonneville Power Administration (Bonneville) appreciates the opportunity for dialogue with California Independent System Operator (CAISO) and other participants in the July 19, 2018 EIM Offer Rules Workshop, as well as the CAISO's willingness to accept comments.

Bonneville believes the materials provided by the parties during the workshop are both compelling and consistent with our previous comments. In particular, these initiatives would 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. Therefore, Bonneville encourages the CAISO to conduct transparent stakeholder processes on both of the topics discussed at the April 30th and July 19th workshops, namely resource sufficiency and default energy bids, which would incorporate discussion of the determination of market power.

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.

Resource Sufficiency

CAISO is the Balancing Authority Area (BAA) for the ISO footprint and a Market Operator for the EIM Area footprint which includes the EIM Entity BAAs and ISO BAA. As such, it is important for all market participants that the CAISO implementations are transparent in order to

support achieving reliable, equitable, efficient and liquid market outcomes in each of its market time horizons for each of the products available within each applicable BAA. The CAISO has demonstrated that resource sufficiency is required and must be enforced. What is less clear, both in our own observation and that of the workshop presenters, is that resource sufficiency is equitably tested and enforced upon all market participants as appropriate to the BAA, time horizon and product.

Given the complexity and importance of the resource sufficiency tests, Bonneville encourages the CAISO to develop a standalone Business Practice Manual or a distinct document that explains in detail the mechanics and particulars of the resource sufficiency tests. Questions asked by stakeholders, including EIM participants, at the workshop demonstrate there is not a clear understanding or a general agreement of the inner workings of the resource sufficiency tests, leading stakeholders and participants to deduce how the tests are constructed and performed. 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 commercial and operational decisions. Bonneville recommends that the detailed document address all data used in each test, any filtering or data cleaning performed, algorithms with parameters used and any and all nuances. Any entity should be able to use the document to replicate the test given access to the same data.

Bonneville supports comments made at the workshop requesting the CAISO to apply tolerance thresholds to the resource sufficiency evaluation. The tolerance thresholds would prevent EIM Entities from being unnecessarily restricted from the market due to small or insignificant departures from the resource sufficiency requirements, and allow for beneficial EIM transactions to take place across the EIM footprint.

Finally, Bonneville appreciates the CAISO's commitment to examine the performance, potential enhancements, and policy questions and concerns stakeholders have of the real-time resource sufficiency tests. Such an evaluation is necessary 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 ISO's day-ahead market. Bonneville believes that an in-depth quantitative and qualitative evaluation of the real-time resource sufficiency tests, conducted independent of the Day-Ahead Market Enhancements (DAME) stakeholder initiative and including results for each BAA, will add confidence to the market solutions and better inform resource sufficiency changes pursued within the DAME initiative. Bonneville looks forward to participating in the meeting that the CAISO is coordinating to discuss methodologies for evaluating the performance of the P95 standard imposed by the resource sufficiency evaluation, as well as participating in the DAME stakeholder initiative.

Market Power Mitigation and Default Energy Bid

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. Though offer rules for EIM, specifically, were at issue in the workshop, the principles established for DEB in EIM assume significance more broadly as the EIM grows geographically and the day-ahead market and EIM are intertwined.

Bonneville also appreciated the presentations from participants in the EIM Offer Rules Technical Workshop of 19 July. It was apparent from these presentations that there are wide-ranging viewpoints on the salient aspects of both market power determination and how to mitigate the actions of market participants who are determined to be exercising market power. Bonneville appreciates the opportunity to offer comments and perspective related to both of these topics.

Default Energy Bid

Bonneville markets wholesale power from the energy-limited FCRPS to meet preference load and fulfill reliability obligations in its Balancing Authority Area after meeting non-power constraints. This is a complex undertaking, requiring coordination across agencies and depending on forecasts of many inputs including streamflow, weather, temperatures, loads, and prices. Further, in practice these uncertain inputs are subject to changes that are large in magnitude, frequency, or both. Bonneville relies on proprietary models and the experience of numerous subject matter experts to determine how to best meet its hydraulic objectives in light of these obligations and uncertainties. Bonneville's participation in wholesale markets is a crucial tool used to meet its hydraulic objectives and associated operational and commercial obligations. Our participation in wholesale markets – and the price at which Bonneville is willing to transact – is significantly influenced by our understanding of the numerous sources of uncertainty and, ultimately, agency risk preference. A DEB paradigm that helps to reduce uncertainty will encourage greater participation from Northwest hydro that will benefit the EIM. Such a paradigm should also be readily portable to other use-limited resources.

Bonneville was encouraged by discussion on several important aspects of the DEB alternative for hydro, namely that participants recognized that 1) the current tariff-based mechanisms for producing default energy bids are inadequate and inappropriate for hydro-based market participants; 2) it is implausible for a third party to accurately and reliably estimate the opportunity costs and risk appetite of hydro resource operators; 3) the opportunity cost for hydro is forward-looking in nature; 4) the varying constraints faced by hydro projects imply that optimization horizons likely vary from project to project, exhibit seasonality, and may extend well into the future; and 5) the energy limitations and flexibility of hydro resources imply that opportunity cost cannot be reduced to an index price that reflects the average value of energy across multiple hours or locations. Bonneville is supportive of Powerex's DEB proposal in concept and encourages further discussion of their concept in the ISO's stakeholder process.

Market Power Mitigation

Bonneville recognizes that a modification of the MPM process may be a more significant undertaking than modifications to DEB formulation, but was encouraged by discussion on possible revisions to the MPM methodology used by the CAISO. 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.

Market power mitigation and default energy bid formulation are clearly of keen interest to a vast spectrum of market participants. Bonneville appreciates the open discourse on these topics and – despite the disparate viewpoints presented in the technical workshop – is confident that the stakeholder process will produce a resolution that will balance the interests of resource owners and end-use customers. Bonneville looks forward to participating in this process.