

**Comments of Powerex Corp. on
Day Ahead Market Enhancements
Workshop**

Submitted by	Company	Date Submitted
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Powerex appreciates the opportunity to submit comments on CAISO’s January 24, 2022 Day-Ahead Market Enhancements Workshop (“Workshop”).

The focus of the Workshop was the CAISO’s need to procure flexible capacity in the day-ahead market in order to have sufficient resources to operate the grid reliably in real-time. This concept is virtually unchanged from four years ago, when the CAISO published its Issue Paper and Straw Proposal in which “the CAISO proposes to introduce the procurement of imbalance reserves in the day-ahead market to ensure upward and downward capacity will be available to resolve imbalance that occurs in real-time.”¹

The fact that after four years of significant effort by the CAISO to explain, to analyze, to put forward proposals, and to host workshops and meetings, this stakeholder process has made no discernible progress demonstrates the ability of some stakeholders to effectively block the CAISO’s efforts to modernize its market design and to pursue workable frameworks to address regional challenges. The CAISO’s general proposal can hardly be viewed as ambitious or revolutionary; it is a modest and limited first step toward a day-ahead market that procures the additional products and services needed to reliably serve customers on an evolving, increasingly de-carbonized, electricity grid. The CAISO has provided extensive analysis and evidence demonstrating the clear need for day-ahead procurement of flexible resources to ensure reliable real-time operations. FERC has conducted multiple technical conferences in which the reliability challenges associated with a transforming grid have been broadly recognized. And other organized markets—many of which arguably face less pressing operational challenges than the

¹ CAISO Day Ahead Market Enhancements Issue Paper & Straw Proposal (February 28, 2018), at 6. While the website for this stakeholder process does not appear to include materials prior to 2019, the Issue Paper is available at <https://www.caiso.com/Documents/IssuePaper-StrawProposal-DayAheadMarketEnhancements.pdf>.

The core elements of the Straw Proposal were also previewed in a February 7, 2018 presentation in the FRAC-MOO initiative, available at <http://www.caiso.com/Documents/SupplementalPresentation-PreviewofDayAheadMarketEnhancements.pdf>.

CAISO—have successfully implemented market design enhancements to procure flexible reserves on a day-ahead basis.

In stark contrast to the rest of the industry, this stakeholder process remains stuck at the starting line, leaving the CAISO with an increasingly outdated market design that does not procure all of the products needed to ensure reliability in a rapidly transforming grid. Rather than focusing on solutions, the Workshop discussion featured yet another round of debate over issues that the rest of the industry has already settled:

1. The transforming grid requires day-ahead procurement of additional flexible reserves in order to ensure reliability; and
2. Well-designed organized markets procure the full range of products and services that are needed through centralized, co-optimized procurement processes. This minimizes the need for out-of-market actions and uplift payments, and thereby helps ensure market-clearing prices send accurate price signals for the installation, availability, and performance of the resources needed to reliably operate the grid.

Powerex emphasizes that this lack of progress is not due to the CAISO or how it has managed this stakeholder process. To the contrary, Powerex believes that the CAISO has amply explained and documented the need to incorporate additional products such as flexible reserves into the day-ahead market design. The CAISO has also fully articulated the need for this procurement of flexible reserves to occur in the day-ahead market's co-optimized procurement processes, with all market-clearing prices reflecting the aggregate product needs of the grid (rather than procured through manual operator actions outside the market process, with corresponding side payments that suppress market-clearing prices for energy and all other procured products). Powerex, other stakeholders, and CAISO staff have invested countless hours developing and reviewing multiple detailed proposals, identifying potential technical challenges, and proposing solutions and refinements. Some of the proposals have been truly innovative: Powerex remains convinced that the CAISO's February 3, 2020 proposal—with simultaneous procurement of imbalance reserve and reliability capacity in a fully optimized manner—would have been an industry-leading approach to procuring the necessary products in an efficient manner, with prices and settlements that appropriately reflect the value of all relevant and necessary resource attributes.² More recent proposals have been significantly scaled back, but still represent a material improvement over the current market design. The lack of progress in this initiative simply cannot be attributed to a lack of workable potential solutions, nor to a lack of effort by CAISO staff and stakeholders.

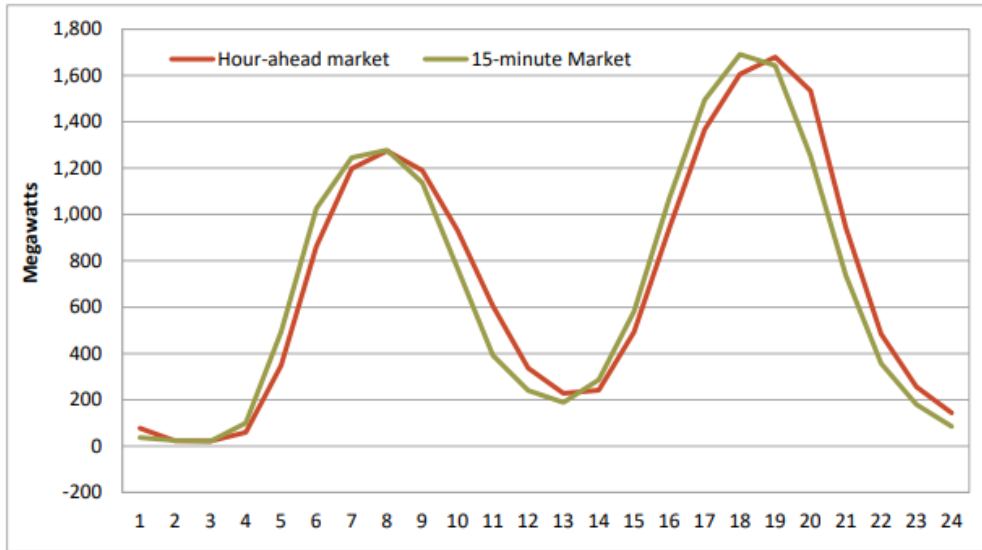
² Available at: <http://www.caiso.com/InitiativeDocuments/StrawProposal-Day-AheadMarketEnhancements.pdf>

What has become increasingly clear is that it is certain stakeholders' individual economic interests that are posing a barrier to moving forward. These particular stakeholders are entities that are large net purchasers from the wholesale market (or advocates of such) and that, as a result, clearly stand to benefit from the CAISO continuing to procure the flexibility it needs *outside* of the day-ahead market-clearing processes (*i.e.*, through out-of-market actions). Such fragmented procurement is, *on aggregate*, less efficient and less reliable, while also causing other harmful unintended consequences. This inefficient procurement approach nevertheless continues because it has the effect of inaccurately suppressing wholesale market clearing prices for the large volume of products procured in the day-ahead market (*i.e.*, suppressing the price for energy, contingency reserves, and regulation). In contrast, any CAISO proposal to procure the necessary flexible reserves through the day-ahead co-optimized market processes would result in the day-ahead market more accurately reflecting the full demand for all physical products needed to reliably operate the grid, and higher market-clearing prices for day-ahead energy and other products. Notwithstanding the greater overall efficiency and more accurate market-clearing prices that would result under such a proposal, an increase in market-clearing prices is generally regarded as detrimental to the self-interest of entities that are large net purchasers from the wholesale market, which explains certain entities' opposition to it in the stakeholder process.

The CAISO's inability to move this important initiative forward over the opposition of these stakeholders has far-reaching consequences. For example, one of the key tools that CAISO operators utilize to create the flexibility they need inside the operating hour (but that is missing from the products procured in the day-ahead market) is upward load biasing (also referred to as "imbalance conformance"). It is well documented that CAISO operators have had to resort to systemically biasing the load forecast upward in real-time by as much as 2,000 MW or more in certain hours of the day, with harmful consequences that extend throughout the EIM area. The chart below is reproduced from a CAISO Department of Market Monitoring report for December 2021:³

³ CAISO Department of Market Monitoring, *EIM Resource Sufficiency Evaluation Metrics Report covering December 2021*, (January 11, 2022). Available at: <https://www.aiso.com/Documents/December-2021-EIM-Resource-Sufficiency-Evaluation-Metrics-Report-Jan-11-2022.pdf>

Figure 3.18. Average ISO hour-ahead and 15-minute market imbalance conformance (December 2021)



Further, it is difficult to envision how a regional Extended Day Ahead Market can move forward if it ultimately is unable to include the centralized, co-optimized procurement of all necessary products to reliably operate the grid, and is hence unable to send accurate and efficient price signals.

It is apparent that the economic interest of certain stakeholders has been the principal barrier preventing the CAISO from moving this initiative forward over the past four years. While it is not unexpected for any stakeholder (or stakeholder group) to prefer the “status quo” over market enhancements that may result in market outcomes they regard as less favorable *to them*, it is problematic when this self-interested opposition is able to prevent the CAISO from advancing its market design in pursuit of aggregate efficiency, reliability and/or environmental benefits. Powerex urges the CAISO to move forward with its proposal to modernize its market design to reflect that day-ahead procurement of flexible reserves is critically needed to achieve efficient, reliable market outcomes and support the further de-carbonization of the western grid.