

**Comments of Powerex Corp. on  
Price Formation Enhancements  
Issue Paper**

<b>Submitted by</b>	<b>Company</b>	<b>Date Submitted</b>
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Powerex appreciates the opportunity to provide comments on the CAISO’s July 5 Price Formation Enhancements Issue Paper and the related discussion at the July 12 stakeholder workshop (“Issue Paper”).

The Issue Paper recognizes the importance of appropriate price formation to “attract supply and reduce demand during tight conditions, and incentivize resources to be available and perform.” Powerex agrees, but notes that accurate price formation is critical *under all conditions*, not only during scarcity or tight system conditions. FERC policy has emphasized the importance of accurate prices for encouraging efficient behavior in both the short-term and the long-term, noting that “[a]dequate investment in resources and resource participation in ISO/RTO energy markets ensure adequate and reliable energy for consumers.”<sup>1</sup>

There are numerous elements where the CAISO’s market design falls short of “getting the prices right.” In particular, the current rules reflect a historical focus on ensuring market prices do not rise above the variable production cost of the marginal unit. While this is generally the pricing outcome expected in competitive markets without supply limitations, the CAISO markets apply unduly narrow and outdated definitions of both the costs that are considered “variable” as well as the units that are considered “marginal.” Furthermore, the current CAISO market design generally lacks measures for energy prices to rise above the variable cost of the marginal unit when supply is limited, as occurs in other competitive markets throughout the nation.

Powerex believes this stakeholder initiative is a valuable opportunity to “get prices right” by modernizing and improving price formation in the CAISO markets. Achieving such outcomes will, however, require CAISO to adopt the types of measures already incorporated in other ISO/RTO markets and that are consistent with FERC policy.

**The CAISO Should Not Exclude Peaking Units From The Calculation Of Market Prices**

Powerex believes one of the most glaring price formation gaps in the CAISO market design is the exclusion of natural gas-fired peaking units from the calculation of market prices (*i.e.*, the lack of “fast-start pricing”). The data show that the CAISO BAA routinely starts and operates multiple natural gas-fired peaking units to meet the evening net load peak, and also the morning peak during the fall and winter months. And yet the CAISO’s market rules have the effect of excluding the cost of starting and operating these peaking units from the calculation of the wholesale market price for electricity. The individual peaking units receive make-whole side payments recovered

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<sup>1</sup> FERC Order No. 831, at P5.

through uplift, while the value of all wholesale electricity transactions in the affected hours is suppressed by approximately \$1.3 billion per year.<sup>2</sup>

The Issue Paper indicates that the CAISO is “reassessing” its past opposition to fast-start pricing, given the CAISO’s “pursuit of a regional day-ahead market with a different generation fleet.” Powerex welcomes a re-evaluation of the CAISO’s position on this topic, but fast-start pricing is necessary in order to ensure accurate prices *in the CAISO BAA*, given the *CAISO BAA*’s use of peaking units to reliably serve its load. Powerex recognizes that there are technical issues that must be carefully explored, but it is clear that accurate price formation in organized markets requires that the cost of any resource with a minimum run time of 60 minutes or less that is started and operated to meet demand no longer be excluded from the calculation of the wholesale market price.

#### *Workable And Graduated Scarcity Pricing Would Improve Price Signals During Tight Conditions*

The Issue Paper provides a thorough description of scarcity pricing, and how the existing CAISO market design does not reflect reductions in operating reserves in the price of energy. Powerex believes that graduated scarcity pricing—which initially applies moderate price increases triggered by objective indicators of material but moderately tight grid conditions, with greater price increases associated with increasingly tight conditions—would be workable and improve price formation when available supply is limited. Powerex *does not* support pricing rules that would suddenly reach extreme levels, or do so in an arbitrary matter untethered from actual grid conditions.

The Issue Paper includes a range of ideas on how CAISO market prices could better reflect tighter conditions. Powerex believes several of these ideas have merit and looks forward to continued dialog to further develop these proposals.

#### *The Attempt To Re-Introduce System-Level Market Power Mitigation Should Be Transparent*

The Issue Paper includes a proposal for “BAA-Level Market Power Mitigation.” Both the Issue Paper document and the CAISO’s stakeholder presentation mention only how groups of EIM entity BAAs (or potential future EDAM BAAs) would be evaluated collectively, rather than individually as they are today. But when pressed by a stakeholder at the July 12 workshop, CAISO staff acknowledged that the proposal would introduce BAA-level mitigation for the CAISO BAA.

This confirmation reveals that the Issue Paper actually seeks to re-introduce the highly divisive “system-level market power mitigation” proposal that the CAISO sought to develop in 2020, and differs primarily in the mechanism for determining whether the CAISO BAA is import constrained. The Issue Paper would trigger existing bid mitigation provisions any time the CAISO BAA is import constrained, and would give the CAISO authority to mitigate offer prices of resources located outside the CAISO BAA any time that the CAISO BAA is part of a group of BAAs that collectively is import constrained.

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<sup>2</sup> At the June 9 workshop in this initiative, Powerex [presented](#) summary results from a detailed report prepared by Public Power Council and Powerex: *The Importance Of Fast-Start Pricing In Market Design: Including The Cost Of Starting And Operating Natural Gas Peaking Units In Wholesale Market Prices*, available [here](#).

Powerex believes that future versions of the Issue Paper should be transparent regarding the intention to apply system-level market power mitigation in the EDAM (and possibly the EIM), including to the CAISO BAA. This would represent a very significant expansion of the CAISO's market power mitigation framework, and all stakeholders must have a reasonable opportunity to understand and provide input on what CAISO is seeking to implement.

Powerex reiterates that it acknowledges organized market rules must include measures to prevent prices from being inflated above accurate and efficient levels through the exercise of market power by sellers. To the extent that CAISO believes EDAM presents potential market power concerns for broad areas (as opposed to discrete transmission constraints), Powerex supports the CAISO presenting analysis that supports such a conclusion, and stakeholder discussion on the mechanisms best suited to deal with such concerns. In particular, Powerex believes a discussion of broad-area market power mitigation mechanisms should include consideration of the conduct-and-impact framework used in numerous other ISOs/RTOs. Powerex believes there is strong stakeholder interest in considering a framework that would mitigate offer prices only when there is a clear departure from competitive bidding (based on the conduct threshold) and only when that behavior would have a material impact on prices (based on the impact threshold).

#### *Inaccurate GHG “Deeming” Undermines Price Formation In The Western EIM*

Powerex believes that the Issue Paper omits a key price formation issue from consideration in this initiative. Namely, the CAISO's current Real Time Market rules do not result in wholesale electricity prices that include the cost of GHG emissions of external EIM participating resources dispatched to support electricity imports into California. Instead, the CAISO applies a “deeming” algorithm that dispatches additional electricity to be produced by high-emitting resources such as coal generators, but attributes the resulting EIM Transfers into California to be from low- or non-emitting resources whose output has not increased.<sup>3</sup> This “deeming” approach creates leakage and thwarts the intended incentives of GHG-pricing programs (e.g., to encourage increased use of clean resources, and discourage the use of high-emitting fossil-fueled resources). But it also has important price formation consequences, as it leads to prices in the CAISO's Real Time Market that systemically understate the marginal cost of serving demand in the CAISO BAA, and under-compensate clean and lower-emitting generation in the CAISO BAA.

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<sup>3</sup> A detailed examination of the inaccurate GHG attribution under the “deeming” approach, both in principle and in practice, is found in Powerex's report: *The Western EIM's Approach To Applying California's Cap and Trade Program To Imports Is Undermining The Program's Core Objectives*, available [here](#). An executive summary of the report is available [here](#).