Comments of Powerex Corp. on
Price Formation Enhancements – Phase 2
Straw Proposal

Submitted by	Company	Date Submitted
Connor Curson	Powerex Corp.	September 19, 2025

Powerex appreciates the opportunity to submit these comments on the CAISO's August 22, 2025 Price Formation Enhancements BAA-Level MPM and Scarcity Pricing Straw Proposal ("Straw Proposal").

In order to fully realize benefits for consumers, prices in wholesale electricity markets must be accurate, provide strong price signals for efficient behavior, and provide equitable compensation for supply needed to serve load. As explained by FERC:

> *Locational marginal prices for energy and ancillary services ideally would reflect the true marginal cost of production, taking into account all physical system constraints, and fully compensate all resources for the variable cost of providing service.*[1]

In seeking to achieve these goals, both FERC policy and best practices in other organized electricity markets in the U.S. include robust mechanisms to ensure prices are neither artificially high nor artificially suppressed. These mechanisms include:

- **Market Power Mitigation**, which is intended to protect market purchasers in the limited circumstance that a seller attempts to exercise market power by offering its supply at a price above its estimated marginal cost. When there is clear evidence of such behavior, market operators will replace the seller's offer price with an estimate of the resource's variable production cost. When sellers' offer prices are replaced *without* clear evidence of an attempt to exercise seller market power, however, it can lead to some sellers being forced to sell their output at prices that are below their cost, and to an elevated risk of inappropriately suppressed market prices that harms all sellers in that period.
- **Scarcity Pricing** refers to pricing mechanisms in organized markets that formulaically increase market prices above the variable cost of generation when there is an elevated risk of insufficient supply to serve all demand. Organized markets that lack robust scarcity pricing fail to send accurate price signals for more

[1] See Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators, Notice, Docket No. AD14-14-000 (June 19, 2014).

supply to be made available when the grid is close to a reliability event, while suppressing the prices paid to sellers that do provide supply.

- **Fast-Start Pricing** refers to the mechanism used in nearly all organized markets to include the cost of natural gas-fired peaking units in the market price. In organized markets that lack fast-start pricing, market prices are suppressed below the actual cost of meeting load, harming all sellers while benefitting purchasers in the applicable hours.

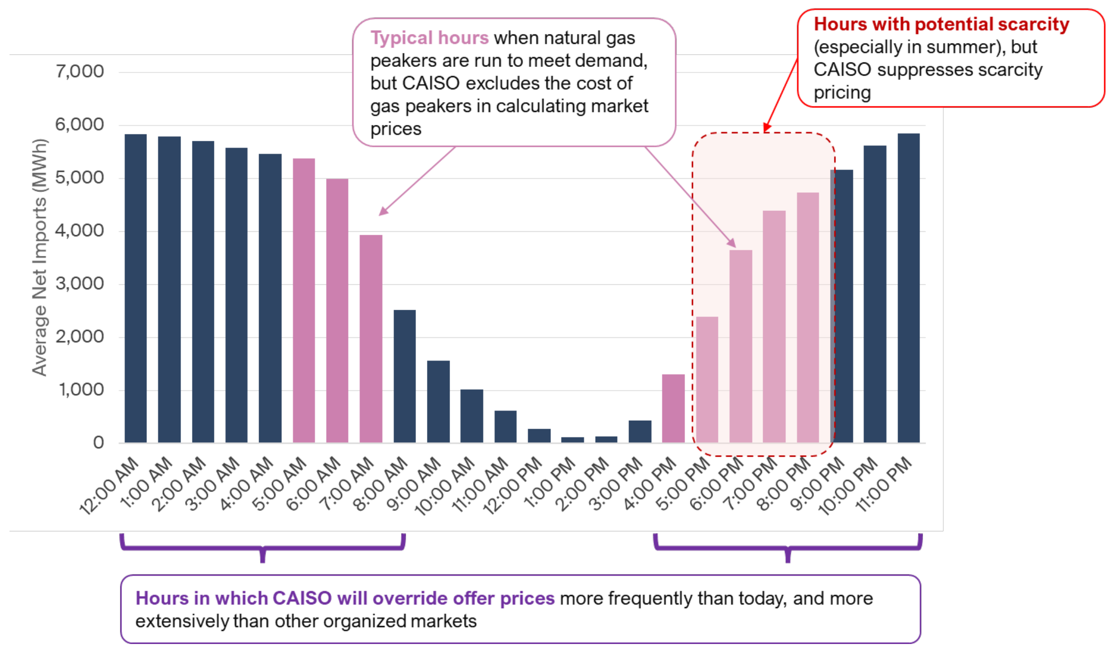
Contrary to FERC policy and best practices in other organized markets, the Straw Proposal articulates that the CAISO plans to:

1. Expand the use of its already-aggressive practice of replacing sellers' offer prices with formulaic offer prices, including in circumstances where there is no clear attempt to exercise seller market power;
2. Not apply robust scarcity pricing, so prices will not rise above marginal costs to reflect growing reliability risk; and
3. Not apply fast-start pricing, so prices will exclude the cost of operating natural gas-fired peaking units to meet demand.

Taken together, the CAISO's approach in the Straw Proposal represents a suite of measures that will serve to artificially and systematically ***suppress market clearing prices during the specific hours that the CAISO's own Balancing Authority Area (BAA) is a net importer of electricity from its neighbors.***

The chart below shows the average hourly imports into the CAISO BAA across each hour of the day for 2024, and identifies the hours most likely to be affected by the CAISO's chosen approach. (For completeness, **Appendix A** shows this chart separately for each month of 2024.)

Average Hourly Net Imports into the CAISO BAA, 2024



The CAISO's chosen course of action will systematically benefit California ratepayers by suppressing the market price their utilities pay when importing wholesale electricity from neighboring areas. This will come at the direct expense of ratepayers *outside* California, since their respective utilities will earn suppressed revenues for their electricity sales in those same hours (resulting in less revenue to credit toward retail rates outside California). ***Under the Straw Proposal, every entity that participates in the Western EIM and/or in EDAM, or that sells to the CAISO at interties at its boundary, will receive less than the fair, efficient and accurate market price they should receive for supplying electricity to California.*** This includes sales from out-of-state flexible hydro resources, natural gas combined cycle and peaking resources, coal resources and those renewable generation resources that happen to be producing during the applicable hours. This will effectively result in a transfer of wealth from ratepayers outside the CAISO area to ratepayers inside it. Importantly, this transfer of wealth is not recognized in any EDAM benefits studies, as those studies are largely based on simulations of generic organized market rules and are poorly-suited to evaluating the CAISO's unique price-formation choices.

In Powerex's view, the Straw Proposal is contrary to FERC policy and the best practices applied in all other organized markets. The Straw Proposal ignores the strong opposition expressed by a broad range of stakeholders outside of California over the past several years whenever these same price formation issues have been raised.

Specifically, in the Straw Proposal:

<u>CAISO proposes to expand its already-aggressive replacement of sellers' offer prices</u>

Protections against the exercise of seller market power are important elements of any organized market. However, most other organized markets seek to minimize interfering in competitive market dynamics and therefore do not over-ride a seller's offer price unless there is clear evidence that:

1. A seller is attempting to charge excessively high prices; and
2. That seller's offer price will actually elevate market prices significantly.

This is referred to as a "Conduct and Impact" test. The CAISO has repeatedly refused to consider adopting the Conduct and Impact approach, choosing instead to continue with a very different and far more aggressive approach to over-riding sellers' offer prices. Under the CAISO's approach, sellers' offer prices can be overridden by the CAISO whenever supply conditions are deemed "non-competitive" by the CAISO software, but without requiring evidence that a seller is actually attempting to exercise market power or that the seller's offer price will significantly increase market prices. Several stakeholders outside California have repeatedly expressed concerns that the CAISO's bid mitigation framework can result in excessive bid mitigation and artificially suppressed prices for all sellers, while forcing some resources to sell at prices that are below their actual marginal cost.[2] Excessive mitigation can cause significant unintended consequences because, as FERC staff have noted, "measuring marginal cost can be a complicated endeavor. For example, fuel costs, particularly the costs of natural gas and fuel oil, can change substantially day-to-day and potentially within the day; further opportunity costs for some resources can be difficult to determine with precision."[3]

The Straw Proposal would expand the CAISO's already-aggressive approach by adding to the circumstances under which sellers' offer prices will be over-ridden by the CAISO. The CAISO made a similar proposal several years ago (at the time described as "System Market Power Mitigation"). The proposal was highly controversial, and the CAISO temporarily abandoned it, only to re-introduce it now ostensibly as part of EDAM-related rule changes.

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[2] *See, e.g.,* Joint Comments of Select Entities on CAISO System Market Power Mitigation Revised Draft Final Proposal, at 1: "The commenters maintain that the broad application of a new CAISO system market power mitigation framework, if not carefully designed, has the potential to result in significant unintended consequences, including the potential to incorrectly suppress prices during periods of tight supply conditions[.]"

[3] Energy Offer Mitigation in RTO and ISO Markets (ferc.gov), at P 1.

<u>CAISO will not implement robust scarcity pricing, distorting market prices during tight grid conditions and harming all sellers</u>

The need for market prices to rise to reflect tightening grid conditions has been clearly described by FERC staff:

> *Under [increasingly tight grid] conditions, prices should rise, inducing performance of existing supply resources and encouraging load to reduce consumption so that the system operator would not need to administratively curtail load to maintain reliability. A failure to properly reflect in market prices the value of reliability to consumers and operator actions taken to ensure reliability can lead to inefficient prices in the energy and ancillary services markets leading to inefficient system utilization, and muted investment signals.*[4]

To support prices that reflect increasingly tight system conditions, other organized markets have adopted a framework that gradually increases prices formulaically as the quantity of remaining reserves declines. CAISO instead proposes to apply only "shortage" pricing, once supply shortages actually occur. Non-market interventions by CAISO operators—a clear indication of scarcity in the market—will continue to be largely ignored in the calculation of market prices.

<u>CAISO will not implement fast-start pricing at all and will therefore continue to exclude gas peakers from setting market prices, distorting market prices and harming all sellers</u>

Every other FERC-jurisdictional organized market has implemented fast-start pricing, and FERC has repeatedly found that:

> *[fast-start pricing] can advance price formation by more transparently reflecting the marginal cost of serving load, which will reduce uplift costs and thereby improve price signals to support efficient investments in facilities and equipment.*[5]

Despite these fundamental goals, the CAISO and its Department of Market Monitoring (DMM) have long opposed implementing fast-start pricing, with the DMM expressing its concern that one result of fast-start pricing would be that "resources that are less expensive than the market clearing price would be paid substantially more through a higher market clearing price."[6]

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[4] Shortage Pricing in RTO and ISO Markets

[5] *Fast Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators,* Notice of Proposed Rulemaking, Docket No. RM17-3-000 (Dec. 15, 2016) at P 3.

[6] *Fast-Start Pricing in Markets Operated by Regional Transmission Organization and Independent System Operators,* Comments of the Department of Market Monitoring, Docket No. RM17-3-000 (filed Feb. 28, 2017) at 26.

Closing Remarks

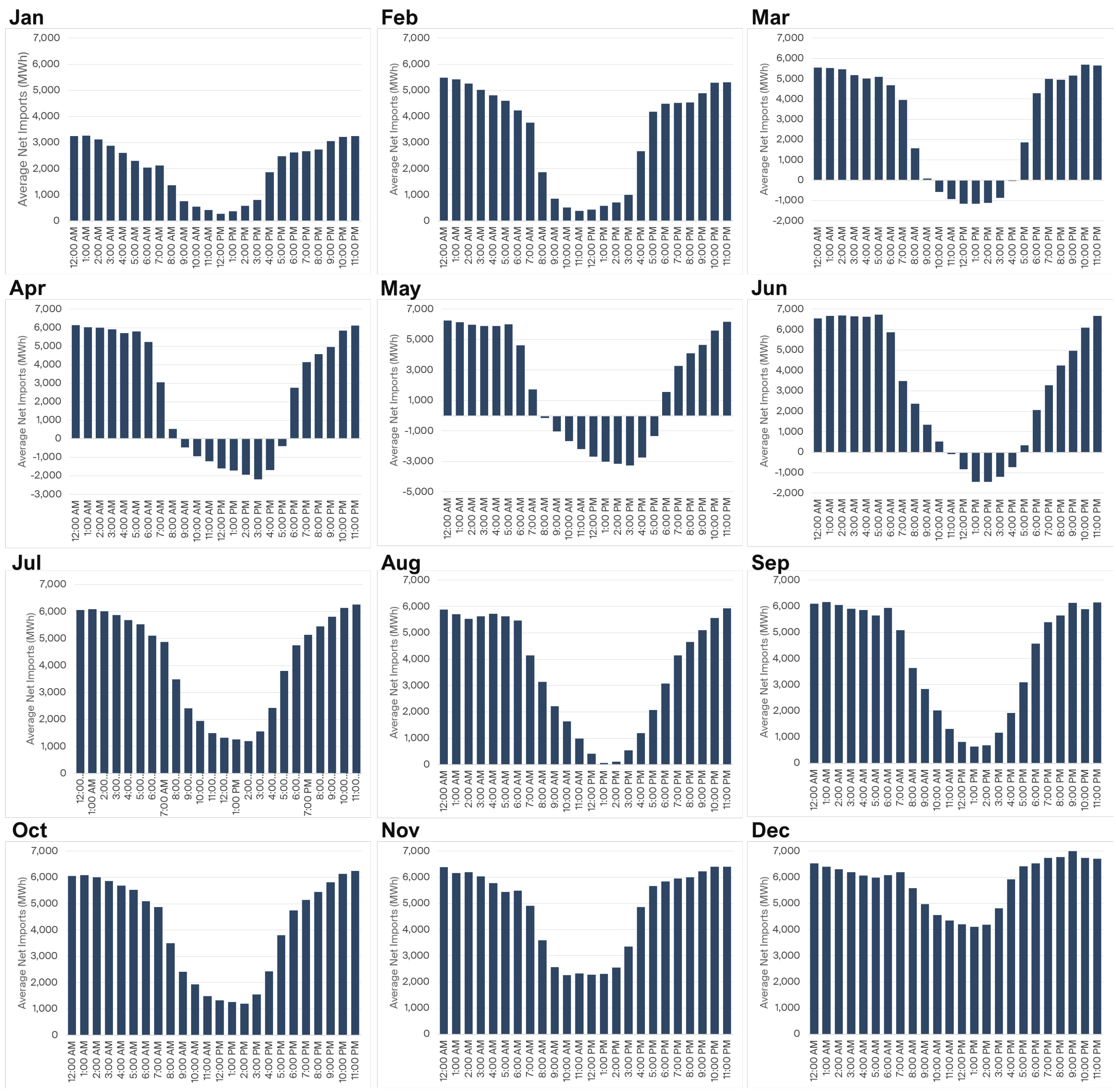
The Straw Proposal exemplifies the governance challenges inherent in a regional market in which the market operator is in charge of prioritizing, proposing, and developing market rules, but is accountable to a single state. While a *final* policy proposal must be approved by the appropriate board, the content of that proposal—such as which price formation practices to pursue, and which practices to omit—is developed entirely by CAISO management and staff. Unfortunately, despite the recently successful Pathways legislation, CAISO management is demonstrating in this stakeholder process that it, as market operator, can be expected to continue to pursue market design choices that benefit the interest of California ratepayers, often at the expense of ratepayers outside of California. This is possible because the Pathways legislation, while an important step forward in the governance of CAISO markets, does not make CAISO management accountable to the Regional Organization, nor does it change the governance of the CAISO Board (*i.e.,* the CAISO Board will continue to be appointed by the California Governor and confirmed by the California Senate).

Powerex reiterates that it seeks the adoption of price formation practices that result in market prices that accurately reflect grid conditions, are consistent with industry best practices, are equitable to both sellers and purchasers of wholesale electricity, and do not favor any particular region or group of stakeholders in the West. Powerex believes that the Straw Proposal is not consistent with these objectives, and the underlying process for deciding the contents of the Straw Proposal is and will continue to be a major impediment to achieving well-functioning, impartial CAISO-operated markets. Finally, Powerex notes that SPP's Markets+ will take a different approach on all three of these topics, adopting industry best practices. Specifically Markets+ will adopt the Conduct and Impact framework for market power mitigation, and will include both scarcity pricing and fast-start pricing, all of which will be applied in a similar manner to how these elements have been applied in other multi-state organized markets.

Appendix A:

The charts below summarize the average net imports into the CAISO Balancing Authority Area by the hour of the day for each month during 2024.[7]

As shown below, the CAISO Balancing Authority Area is consistently a net importer from the rest of the West outside of the solar hours.



[7] Source: CAISO OASIS.