



# Memorandum

**To:** WEIM Governing Body and ISO Board of Governors

**From:** Benjamin F. Hobbs, Chair, Market Surveillance Committee

**Date:** January 31, 2024

**Re:** Briefing on Market Surveillance Committee activities – Dec. 5, 2023 to January 28, 2024

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***This memorandum does not require WEIM Governing Body or ISO Board of Governors action.***

The Market Surveillance Committee (MSC) of the California ISO held a general session meeting on December 18, 2023, that addressed the topic of fast start pricing.<sup>1</sup> This topic is one of several issues in the scope of the on-going price formation initiative of the ISO, which has been formally underway since mid-2022, with several of the issues under discussion by ISO staff, MSC, and stakeholders well before then. Other topics in the scope include scarcity pricing;<sup>2</sup> multi-interval optimization and settlements in the real-time markets, including their interactions with battery storage operations and bid-cost recovery;<sup>3</sup> and market power mitigation at the balancing authority area.<sup>4</sup> The MSC is planning to hold future general session meetings on those topics and, as appropriate, submit opinions to the ISO Board of Governors and WEIM Governing Body

A summary of the discussions is given below.

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<sup>1</sup> [www.caiso.com/informed/Pages/BoardCommittees/MarketSurveillanceCommittee/Default.aspx](http://www.caiso.com/informed/Pages/BoardCommittees/MarketSurveillanceCommittee/Default.aspx)

<sup>2</sup> Market design issues and options for scarcity pricing were previously addressed in an MSC Opinion issued before the start of the price formation initiative (J. Bushnell, S.M. Harvey, and B.F. Hobbs, "Opinion on Market Enhancements for Summer 2021 Readiness", March 8, 2021, [www.caiso.com/Documents/Decision-Market-Enhancements-Summer-2021-Readiness-MSC-Opinion-Attachment-A-Mar-2021.pdf](http://www.caiso.com/Documents/Decision-Market-Enhancements-Summer-2021-Readiness-MSC-Opinion-Attachment-A-Mar-2021.pdf)).

<sup>3</sup> This topic was the subject of ISO staff analyses, discussions at the General Session Meeting of the Market Surveillance Committee in October 1, 2021, and stakeholder comments in 2021 (see Oct. 28, 2021 MSC Board Memo, [www.caiso.com/Documents/Market-Surveillance-Committee-Board-Update-Nov-2021.pdf](http://www.caiso.com/Documents/Market-Surveillance-Committee-Board-Update-Nov-2021.pdf)). This topic is scheduled to be a focus of the initiative in 2025.

<sup>4</sup> Now the subject of on-going working group meetings <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Price-formation-enhancements>.

## MSC General Session Meeting, December 18, 2023

The meeting had one agenda item, which included a presentation on the analysis of fast start pricing for the ISO's real-time market, performed by Market Performance and Advanced Analytics at the ISO. The analysis was undertaken and presented by Dr. Zhu Liang, Lead Market Development Analyst; Dr. Kun Zhao, Lead Market Engineering Specialist; and Dr. Guillermo Bautista Alderete, Director, Market Analysis and Forecasting.

The purpose of the ISO's analysis is to explore potential implications and benefits to price formation of fast start pricing and help guide subsequent discussions of the topic. The analysis is being undertaken in two stages. The first stage, whose results were summarized in this MSC meeting, developed statistics that characterize the generator fleet, examine historical patterns of bid-cost recovery, and analyzed implications of fast start pricing for the ISO area under four different definitions of cost adders derived from lumpy costs to be used in the real time pricing run. The bid-cost recovery analyses identified the types of generators that received such payments (predominantly California gas-fired units with a range of start-up times) and the total amounts involved (which were about \$20 million per month over the time period considered). Additional analyses considered how fast start pricing could be applied to multistage generation units and the impacts of the minimum-online constraints in the market dispatch. The second stage, scheduled to be completed in March 2024, will extend the analyses to the entire Western Energy Imbalance Market region.

MSC members and stakeholders asked a number of questions about the proposals. Examples include whether cost adders will be allocated to flexible ramp product or operating reserve products (which has not been decided) and their impacts; the status of the minimum-online contingency enhancements<sup>5</sup> and if they would interact with the proposed fast start pricing system (units associated with those constraints only received a small fraction of bid-cost recovery payments); and should the costs included in the adders depend on the length of the market interval (1 hour in the day-ahead market vs 15 minutes in the real-time predispach market)? The MSC also asked ISO staff about the differences between their analysis's conclusions and about the effect of fast start pricing on prices and make-whole payments versus the conclusions of a stakeholder study that found much larger effects.<sup>6</sup>

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<sup>5</sup> Discussed in J. Bushnell, S.M. Harvey, and B.F. Hobbs, "Opinion on Contingency Modeling Enhancements", ISO MSC, December 1, 2017, [http://www.caiso.com/Documents/MSCFinalOpiniononContingencyModelingEnhancements\\_-\\_Dec1\\_2017.pdf](http://www.caiso.com/Documents/MSCFinalOpiniononContingencyModelingEnhancements_-_Dec1_2017.pdf).

<sup>6</sup> Powerex and Public Power Council, "The Importance Of Fast-Start Pricing In Market Design: Including The Cost Of Starting And Operating Natural Gas Peaking Units In Wholesale Market

(The answer provided was that, in part, the differences were due to the latter study including a larger set of units as being eligible for the cost adder.) A MSC member also asked about effects of prices in over generation situations, and the effect on units that are apparently underscheduled (not dispatched or underdispatched relative to the market energy prices), as opposed to the emphasis of the ISO study on units that are apparently overscheduled (prices are lower than their costs). (The answer provided was that apparently few cases of underdispatch occurred in the ISO's analysis.)

A MSC member brought attendees' attention to an ISO-New England analysis that presented their perspective on a wide range of general fast start pricing methods in terms of transparency, simplicity, and efficiency (whether prices supported schedules).<sup>7</sup> Without providing specific numbers for ISO-NE, the report drew a broad conclusion that no fast pricing method is superior in all criteria.

The MSC looks forward to reviewing the results of the second stage of the ISO fast start pricing study and to preparing an opinion on this and other portions of the price formation initiative.

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Prices", June 2022, <http://www.caiso.com/InitiativeDocuments/Powerex-and-Public-Power-Council-Report-Importance-of-Fast-Start-Pricing-in-Market-Design.pdf>.

<sup>7</sup> T. Zheng, F. Zhao, D. Schiro, and E. Litvinov, "The Hidden Properties of Fast Start Pricing," FERC Technical Conference on Increasing Real-Time and Day-Ahead Market Efficiency, Washington, DC, June 26-28, 2018, [https://www.ferc.gov/sites/default/files/2020-08/T1-3\\_Zheng.pdf](https://www.ferc.gov/sites/default/files/2020-08/T1-3_Zheng.pdf).