Requirements for Import Bids Greater Than $1,000/MWh

Issue Paper and Straw Proposal

May 10, 2019

Prepared by: Perry Servedio
Brittany Dean

Table of Contents

1 Executive Summary

Today, suppliers may submit import energy bids up to the $1,000/MWh energy bid cap. Under the proposed rule changes for the CAISO to comply with FERC Order No. 831, suppliers may submit import energy bids above $1,000/MWh, up to a $2,000/MWh bid cap, even if these bids are greater than the supplier's expected or actual short-run marginal costs. Consequently, if import bids are not based on actual or expected costs, the CAISO market may produce energy prices that are at excessive levels and do not reflect the marginal cost of supply.

In developing its FERC Order No. 831 compliance, the CAISO did not propose to require suppliers to base import bids above $1,000/MWh on actual or expected costs. At the time the CAISO developed its' compliance rules during the *Commitment Cost and Default Energy Bid Enhancements* policy initiative, the CAISO balancing authority area was considered to be competitive at a system level and verification of import bid costs was thought to be impracticable. In addition, unlike other supply resources, FERC's order did not require independent system operators and regional transmission operators ("ISO/RTOs") to develop rules requiring import bids above $1,000/MWh to be based on actual costs.

However, after development of its FERC Order No. 831 proposal, the CAISO's Department of Market Monitoring (DMM) released its 2017 annual report showing a significant amount hours of the year in which the CAISO market within the CAISO balancing area is structurally uncompetitive at a system-level. More recently, the CAISO's own analysis shows that, although it may be restricted to much fewer hours than reported by the DMM, there is evidence that suppliers have the potential to exert market power during certain structurally uncompetitive periods, particularly during peak and constrained time periods.

The CAISO's proposed market rules to comply with FERC Order No. 831 provide protection against such market power for internal resources because they limit energy supply bids to $1,000/MWh unless they are based on actual costs. Given the DMM and CAISO's findings on structural competiveness of the CAISO balancing area, the CAISO believes a requirement for suppliers to base import bids above $1,000/MWh on the supplier's expected or actual short-run marginal costs is appropriate and prudent.

2 Scope of this proposal

The objective of this initiative is to ensure:

1. Energy prices reflect the marginal cost of supply when cleared bids exceed $1,000/MWh; and
2. Import energy bid rules for import bids that exceed $1,000/MWh are generally consistent with the CAISO's bidding rules for similar bids for generating units and other resources through reasonable cost-verification measures.

3 Energy Imbalance Market Governing Body

The EIM Governing Body has a decisional role in all proposals to change the rules of the real-time market. In this case, the proposed changes are directed exclusively toward rules for import bidding for the ISO balancing authority area. The Energy Imbalance Market does not include import bidding and therefore will not be subject to the proposed import bidding rules. In other words, the policy would not change any market rules that are EIM-specific. Accordingly, the ISO believes that this initiative does not fall within the EIM Governing Body's primary authority, and instead the EIM Governing Body will have an advisory role.

Stakeholders are encouraged to submit a response to the EIM classification of this initiative as described above in their written comments, particularly if they have concerns or questions.

4 Issue

In 2016, the Federal Energy Regulatory Commission ("FERC") raised the energy offer cap for ISO/RTOs from $1,000/MWh to $2,000/MWh and generally required suppliers to submit offers above $1,000/MWh based on verifiable costs. These rule changes create a structure where internal supply offers above $1,000/MWh are effectively automatically mitigated to an amount equal to a supplier's expected or actual costs. The FERC did not require the same treatment for import offers, but was open to individual ISO/RTOs developing and justifying their own requirements for import offers above $1,000/MWh.

In Order No. 831, FERC established that suppliers may only submit an energy offer above $1,000/MWh if the offer accurately reflects the resource's actual or expected short-run marginal costs. FERC required that each ISO/RTO must verify the costs underlying these cost-based offers above $1,000/MWh before that offer can be used to calculate energy prices. FERC further required that if a supplier submits an energy offer above $1,000/MWh and the RTO/ISO cannot verify the costs underlying the offer before the market clearing process begins, that offer may not be used to calculate energy prices, but is eligible for a make-whole payment if the resource is dispatched and the resource's costs are verified after-the-fact. Suppliers would also be eligible for make-whole payments if the ISO/RTO dispatches a resource and its verified cost-based incremental energy offer exceeds $2,000/MWh. These rules do not apply to imports or virtual bids.

FERC stated that it expected that RTO/ISOs would leverage their existing bid mitigation processes for calculating or updating cost-based incremental energy offers for purposes of verifying energy bids above $1,000/MWh. In its' *Commitment Cost and Default Energy Bid Enhancements* initiative, the CAISO developed cost verification rules it will use both before and after it runs its markets.

Currently, the planned rule changes do not require suppliers to base import bids above $1,000/MWh on actual costs. At the time the CAISO developed its' FERC Order No. 831 compliance proposal as part of the *Commitment Cost and Default Energy Bid Enhancements* policy initiative, the CAISO balancing authority area was considered to be competitive at a system level and verification of import bid costs was thought to not be practicable.

The western interconnection has a robust market for energy and ancillary services outside of the CAISO's energy market and non-CAISO suppliers make economically rational choices to sell power to the CAISO each day. The CAISO relies on this import supply from the western interconnection to reliably operate its system. First, imports are a significant part of the CAISO's supply mix. In 2017, the CAISO relied on imports as its third largest source of energy to meet demand, comprising of 21% of its energy consumption.[1] Also, in the mornings and evenings when renewable supply production increases and decreases at high rates of change, the CAISO often must dispatch available import supply to keep the system balanced. Related to this, California load serving entities procure thousands of megawatts of external resource adequacy capacity, which the CAISO relies on to meet overall system reliability needs during peak load conditions. This means that when overall system demand is highest, the CAISO relies on procured import supply to meet its demand.

The CAISO found in its analysis of structural system-level competitiveness that there are times where suppliers have the opportunity to exercise market power at a system-level in the CAISO balancing authority area.[2] Although this analysis found a wide range of hours that the CAISO balancing area appeared to be structurally competitive, the analysis indicated that there were structurally uncompetitive conditions in 55 hours in 2018. During structurally uncompetitive times, any supplier offering into the energy market could potentially exert market power by bidding above its marginal costs.

The DMM conducted a similar analysis of structural market competitiveness, but used different assumptions and calculations of supply and demand. The DMM found that there are far more hours of the year in which CAISO market conditions may be structurally uncompetitive. As reported in its 2017 annual report, the DMM found that there were structural system-level uncompetitive conditions in approximately 325 hours in 2017 and projected this to grow to approximately 500 hours in 2018.

Even though these analyses show the CAISO market in the CAISO balancing authority area is structurally competitive the vast majority of the hours, there is no guarantee that it will remain this way in the future because the mix of suppliers offering imports can change day-to-day. Imports are not like unit-specific participation (*e.g.*, generating units) where, absent a physical outage, the CAISO can generally expect unit-specific resources to offer energy into the market. Scheduling coordinators voluntarily participate with a large portion of import supply at the CAISO's interties, and on any given day, can choose to instead sell their energy to outside counterparties instead of bidding into the CAISO market. These participation decisions will generally change the mix of import suppliers and therefore change import competitiveness.

All of the considerations described above support a conclusion that there is a need for some measure of protection from suppliers potentially exercising system-level market power. The CAISO's rule changes developed to date to comply with FERC Order No. 831 will require most resources, including import resources that are identified and tied to

---

[1] See Section 1.2 of the Department of Market Monitoring's "2017 Annual Report on Market Issues and Performance" at
http://www.caiso.com/Documents/2017AnnualReportonMarketIssuesandPerformance.pdf
[2] See the CAISO's "Analysis of Structural System-Level Competitiveness in the CAISO Balancing Authority Area" at http://www.caiso.com/Documents/SystemMarketPowerAnalysis-May6-2019.pdf

a specific generator outside the CAISO balancing authority area, to justify costs for offers above $1,000/MWh. However, intertie suppliers that are not registered and tied to a specific generator could also exercise system-level market power will be able to bid supply at prices above $1,000/MWh that are not based on short-run marginal costs.

Under stressed system conditions with potential prices over $1,000/MWh, the CAISO can ensure its prices continue to reflect the marginal cost of supply by extending safeguards it has on internal offers above $1,000/MWh to external offers above $1,000/MWh.

Likewise, the DMM has suggested that the CAISO review its import bidding rules in light of potential structural system-level uncompetitive conditions and an increase in the energy market bid cap from $1,000/MWh to $2,000/MWh.

The CAISO is cognizant that its cost verification rules should not be so burdensome as to prohibit imports from making import offers at times when the CAISO needs such bids the most. Historically, the CAISO depends on import supply to meet its' demand. Suppliers providing import energy offer additional supply and increase competition in the CAISO markets. Lacking such bids would put upward pressure on energy prices at times when internal resources are already constrained.

5 Proposal

5.1 Introduction

To ensure energy prices continue to reflect the marginal cost of supply when prices exceed $1,000/MWh, the CAISO proposes the following rule changes for implementation along with its other FERC Order No. 831 rule changes:

- Suppliers may only submit import bids above $1,000/MWh that reflect the their actual or expected short-run marginal costs (*i.e.*, fuel or fuel-equivalent costs.)

5.2 Background

This section summarizes the CAISO's bidding rules it developed to verify internal resource energy bids that exceed $1,000/MWh through its *Commitment Cost and Default Energy Bid Enhancements* stakeholder initiative.

Under the methodology the CAISO developed to verify that non-import energy bids that exceed $1000/MWh are based on actual or expected short-run marginal costs, a supplier must request an adjustment to their default energy bid to trigger cost verification if their default energy bid is does not already exceed $1000/MWh. This functionality provides the CAISO the ability to verify supply costs relative to a screening criteria, *i.e.*, a "reasonableness threshold," calculated specifically based on each resources' default energy bid, which is based on the current cost of fuel.

These rules will not require suppliers to submit supporting cost information before each CAISO market run, but the CAISO will have the authority to audit the supplier's documentation of contemporaneously available information that supports their determination that their actual or expected fuel costs are above $1000/MWh. If the submitted energy bid is within the reasonableness thresholds calculated by the CAISO for the resource, the CAISO's systems will allow the bid to pass through to the market. If not, the CAISO systems will cap the bid at the appropriate calculated reasonableness threshold before passing it through to the market.

After the CAISO clears the market, if it chooses to audit an internal supplier, it will evaluate the supplier's documentation and determine whether the contemporaneously available documentation supports the supplier's bid cost. If the CAISO determines the supplier's documentation does not support cost expectations above $1,000/MWh, the CAISO will prohibit the scheduling coordinator from bidding at above $1000/MWh for a specified amount of time (*i.e.*, 60 days for the first instance, 180 days for subsequent instances) and potentially refer the behavior to the Federal Energy Regulatory Commission.

5.3 Discussion

The CAISO proposes to allow suppliers to submit import bids above $1,000/MWh only if those bids reflect the underlying actual or expected short-run marginal costs based on verifiable contemporaneously available information that supports the need to submit a bid above $1000/MWh consistent with their actual or expected short-run marginal costs. This proposal is consistent with the rules established in the *Commitment Cost and Default Energy Bid Enhancements* initiative for other supply resources that requires energy bids above $1,000/MWh to be based resource's actual or expected short-run marginal costs based on contemporaneously available supporting information such as fuel price quotes or invoices.[3] This is in contrast to market-based supply offers less than $1,000/MWh which the CAISO does not require such information.

The CAISO proposes to allow import supply bids up to $2,000/MWh to pass through to the market. Prior to the market run, the CAISO uses resource cost reference levels based on default energy bid calculations to cap internal supply bids to levels that may be less than $2,000/MWh on a given day. It is not practical for the CAISO to calculate default energy bids for import supply from non-resource-specific system resources (i.e. imports). Consequently, the CAISO would not have a basis to determine daily reasonableness thresholds for import bids. Here, the CAISO effectively proposes to set the import supply reference level to $2,000/MWh for non-resource-specific system resources, but still requires that the import supplier base its bids above $1,000/MWh on its expected or actual short-run marginal costs.[4]

Similar to internal resource supply bids, the CAISO proposes to allow import suppliers to submit bids above $2,000/MWh. However, the CAISO systems will cap those bids at $2,000/MWh before passing them to the market. After the market clearing, the CAISO proposes make import suppliers whole to their costs above $2,000/MWh only after it is able to verify the import supplier's costs above $2,000/MWh. While it is not practical for the CAISO to calculate default energy bids before the market runs, it believes it is practical and reasonable to confirm import costs after the market runs.

After the CAISO clears the market, if it chooses to audit an import supplier, it will evaluate the supplier's documentation and determine whether the contemporaneously available documentation supports the supplier's bid cost. If the CAISO determines the supplier's documentation does not support its submitted bid above $1,000/MWh, the

---

[3] Commitment Cost and Default Energy Bid Enhancements Second Revised Draft Final Proposal: http://www.caiso.com/Documents/SecondRevisedDraftFinalProposal-CommitmentCosts-DefaultEnergyBidEnhancements.pdf

[4] Under the CCDEBE/Order No. 831 compliance proposal, resource-specific system resources will be subject to the same bid caps and cost verification rules as internal resources.

CAISO will prohibit the supplier from bidding at the interties for a specified amount of time and potentially refer the behavior to the Federal Energy Regulatory Commission.

The CAISO seeks stakeholder feedback on this proposal.

6 Stakeholder engagement

The schedule for stakeholder engagement is provided below. The CAISO will present its proposal to the Energy Imbalance Market Governing Body at their June 28, 2019 meeting and to the Board of Governors' at their July 24-25, 2019 meeting.

Date	Event
5/10/2019	Publish issue paper and straw proposal
5/16/2019	Stakeholder conference call on issue paper & straw proposal
5/30/2019	Stakeholder comments due
6/7/2019	Publish Draft Final Proposal
6/13/2019	Stakeholder conference call on draft final proposal
6/24/2019	Stakeholder comments due
6/28/2019	Energy Imbalance Market Governing Body meeting
7/24-7/25/2019	Board of Governors meeting

Stakeholders should attend the stakeholder conference call on May 16, 2019 and provide written comments to initiativecomments@caiso.com by May 30, 2019.