Market Simulation Structured Scenarios

FERC order 831 - pricing parameters, import bid screening, and validation

Version 1.0

4/12/2021

Location of Document

Release Planning

Revision History

Date	Version	Description	Author
4/12/2021	1.0	Initial Draft	Anshuman Vaidya

Table of Contents

1. Introduction

The objective of this document is to provide the information needed to ISO Market Participants to participate in the FERC order 831 simulation scenarios.

For the scope of this implementation and this initiative, please refer to the FERC order 831 External Business Requirements Specification –

Release Planning

2. Structured Scenarios Approach

2.1 High Level Overview

The identified scenarios will be executed during the structured scenario portion of the FERC order 831 Readiness market simulation.

2.2 Structured Scenarios Conditions and Setup

The following additional setup will be used by the ISO during the scenario execution.

Market Participant pre-Market Simulation Actions

Market participants will need to register their request with the ISO to participate in the FERC order 831 project simulation via the MarketSim@caiso.com mailbox.

Market participants, submit your request and any additional information requested in this document by May 21st, 2021.

Please submit your request and any additional information identified above by May 21, 2021.

2.3 Structured Scenario

Scenario Number	Scenario Execution Trade Date: TBD	
1	Description	Testing with Manual Reference Level Change Request as the cost-verified bid above $1,000/MWh
	ISO Actions	CAISO will process manual requests via CIDI ; if none submitted, CAISO will enter some on behalf of participants. CAISO will indicate to participants when they can start submitting bids to test the functionality in SIBR, based on when the manual request is processed.
	EIM Market Participant Actions	SCs of generating resources can submit manual requests via CIDI (optional). SCs should also submit energy bids and adjustments in SIBR once the manual request(s) has been processed. EIM entities could limit transfers and bias their load forecast to observe the pricing-run differences with infeasibility below and above their EIM BAA-specific threshold
	ISO Market Participant Actions	SCs of generating resources can submit manual requests via CIDI (optional). SCs should also submit energy bids and adjustments in SIBR once the manual request(s) has been processed.
	Expected Outcome	Non-resource specific RA imports, non-resource specific non-RA imports, and virtual resources will be able to submit bids up to $2000/MWh for all hours. Resource-specific resources will be able to submit bids up to the maximum of the soft cap or their Revised DEB as modified by an energy adjustment in SIBR. The Market will recognize the applicable hours in which a cost-verified bid above $1000/MWh was accepted by the CAISO and scale the necessary market parameters accordingly (scheduling priorities, constraint penalties, scarcity prices, energy bid ceiling) for the applicable markets. For EIM BAAs, the pricing run will price EIM BAA power balance under-generation infeasibilities correctly depending on the size of the infeasibility (positive and below the threshold versus above the threshold).
	Anticipated Settlement Outcome	Bids that cleared the market will be settled. For DA awards, please refer to CC 6011. For FMM awards, check CC 6460/64600, or Real Time awards, check CC 6470/64700.

Scenario Number	Scenario Execution Trade Date: TBD	
	Expected Settlement Outcome	• CAISO will execute settlements calculations. • SCs will validate their statements.

Scenario Number	Scenario Execution Trade Date: TBD	
2	Description	Testing with Automated Reference Level Change Request as the cost-verified bid above $1,000/MWh
	ISO Actions	CAISO will upload high natural gas prices and set some parameters for non-gas resources to set Reasonableness Threshold DEBs at $2000. CAISO may also need to submit some automated adjustments in SIBR if none submitted by market participants. CAISO will indicate to participants when they can start submitting bids to test the functionality in SIBR and for which hours, based on when the systems process the high-price inputs.
	EIM Market Participant Actions	SCs should submit energy bids and adjustments in SIBR. EIM entities could limit transfers and bias their load forecast to observe the pricing-run differences with infeasibility below and above their EIM BAA-specific threshold
	ISO Market Participant Actions	SCs should submit energy bids and adjustments in SIBR.
	Expected Outcome	Non-resource specific RA imports, non-resource specific non-RA imports, and virtual resources will be able to submit bids up to $2000/MWh for the specified hours (at least one hour for DAM and RTM respectively). Resource-specific resources will be able to submit bids up to the maximum of the soft cap or their Revised DEB as modified by an energy adjustment in SIBR. The Market will recognize the applicable hours in which a cost-verified bid above $1000/MWh was accepted by the CAISO and scale the necessary market parameters accordingly (scheduling priorities, constraint penalties, scarcity prices, energy bid ceiling) for the applicable markets. For EIM BAAs, the pricing run will price EIM BAA power balance under-generation infeasibilities depending on the size of the infeasibility (positive and below the threshold versus above the threshold).

Scenario Number	Scenario Execution Trade Date: TBD	
	Anticipated Settlement Outcome	Bids that cleared the market will be settled. For DA awards, please refer to CC 6011. For FMM awards, check CC 6460/64600, or Real Time awards, check CC 6470/64700.
	Expected Settlement Outcome	• CAISO will execute settlements calculations. • SCs will validate their statements.

Scenario Number	Scenario Execution Trade Date: TBD	
3	Description	Testing with Maximum Import Bid Price greater than $1,000/MWh
	ISO Actions	CAISO will set the MIBP at $2000 for some hours for DAM ; CAISO will set the MIBP at $2000 for some hours for RTM . CAISO will ensure that no other conditions are set to allow any cost-verified bids > $1000 to isolate conditions. CAISO will indicate to participants when they can start submitting bids to test functionality in SIBR, based on when the MIBP calculation is processed.
	EIM Market Participant Actions	SCs should submit energy bids and adjustments in SIBR. There will be no resource-specific bids above $1000/MWh in order to test this scenario. EIM entities could limit transfers and bias their load forecast to observe the pricing-run differences with infeasibility below and above their EIM BAA-specific threshold
	ISO Market Participant Actions	SCs should submit energy bids and adjustments in SIBR. There will be no resource-specific bids above $1000/MWh in order to test this scenario.
	Expected Outcome	Non-resource specific RA imports, non-resource specific non-RA imports, and virtual resources will be able to submit bids up to $2000/MWh for the specified hours (at least one hour for DAM and RTM respectively). Resource-specific resources will be able to submit bids up to, and that do not exceed, the soft cap of $1000/MWh. The Market will detect the set of hours in which the Max Import Bid Price exceeded $1000/MWh and scale the necessary market parameters accordingly (scheduling priorities, constraint penalties,

Scenario Number	Scenario Execution Trade Date: TBD	
		scarcity prices, energy bid ceiling) for the applicable markets. For EIM BAAs, the pricing run will price EIM BAA power balance under-generation infeasibilities depending on the size of the infeasibility (positive and below the threshold versus above the threshold).
	Anticipated Settlement Outcome	Bids that cleared the market will be settled. For DA awards, please refer to CC 6011. For FMM awards, check CC 6460/64600, or Real Time awards, check CC 6470/64700.
	Expected Settlement Outcome	• CAISO will execute settlements calculations. • SCs will validate their statements.

3. ISO Market Simulation Contact

Please contact MarketSim@caiso.com if you have any questions or concerns regarding these scenarios.