Market Simulation Structured Scenarios

Day-Ahead Market Enhancements

Version 1.0

07/31/2023

Location of Document

Release Planning

Revision History

Date	Version	Description	Author
07/31/2023	1.0	Document Created	Anshuman Vaidya

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1. Introduction

The objective of this document is to provide the information needed to ISO Market Participants to participate in the Day-Ahead Market Enhancements simulation scenarios.

For the scope of this implementation and this initiative, please refer to the Day-Ahead Market Enhancements 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 Day-Ahead Market Enhancements 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 Day-Ahead Market Enhancements project simulation via the MarketSim@caiso.com mailbox.
Market participants, submit your request and any additional information requested in this document by May 17th, 2024.

Please submit your request and any additional information identified above by May 17, 2024.

2.3 Structured Scenarios

Scenario Number	Unstructured Guided scenario	
	Description	Demonstrate proper submission of IRU/IRD and RCU/RCD bids
	ISO Actions	Run DAM and settlements
	WEIM Market Participant Actions	N/A
	ISO Market Participant Actions	SC's would submit IRU/IRD and RCU/RCD bids for resources
1	Expected Outcome	Verify in OASIS : • IR/RC Bid-Related Data • IFM IR and RUC RC Nodal Prices • IFM IR and RUC Binding Constraints Shadow Prices • IFM IR and RUC RC Nomogram/Branch and Interties Shadow Prices • IFM IR and RUC RC MPM Intertie Constraint Competitive Path • IFM IR and RUC RC Aggregate Awards • IRU/IRD Requirements • IRU/IRD Requirement Thresholds • IRU/IRD Requirements Input Polynomials • IRU/IRD Requirements Uncertainty Histograms • IRU/IRD Forecasts • IRU/IRD Demand Curves • IFM Forecast Movement • Payment and No-Payments of IR/RC-Charge Code Settlements Amounts Data CMRI: • IR and RC DAB Curves • IFM IRU and RUC RCU Mitigated Bids • IFM IR and RUC RC Resource Awards • IFM IR and RUC RC Resource Prices • IFM IR and RUC RC LSE Resource Awards • IRU/IRD LOC for Overlapping RA Capacity • DA/Base Schedule Forecasted Movement Data

Scenario Number	Unstructured Guided scenario	
	Anticipated Settlement Outcome	N/A
	Expected Settlement Outcome	• IFM IR & RUC RC Payments • IFM IR & RUC RC Cost Allocation • IR DA and RC RT BCR Settlements • Inclusion of IR & RC in GMC Settlements • IRU/IRD & RCU/RCD Unavailability No-Pay Charges • IR and RC Unavailability No-Pay Charges Priority • IR – FRP RTM Ramp Deviation Settlements • FMM Forecasted Movement Deviation Settlements • Settlements of Overlapping RA Capacity for True-Up Settlements Mechanism • Accounting IRU/IRD in CRR Settlements for CAISO and EDAM BAAs

Scenario Number	Structured scenario	
2	Description	Demonstrate change of activated transmission constraints for IRU/IRD deployment.
	ISO Actions	• Change set of activated transmission constraints, monitored for IRU/IRD deployment. • Run DAM and settlements
	WEIM Market Participant Actions	N/A
	ISO Market Participant Actions	SC's would submit IRU/IRD and RCU/RCD bids for resources in Day Ahead Market
	Expected Outcome	Verify for changed set of activated transmission constraints in OASIS : • IR/RC Bid-Related Data • IFM IR and RUC RC Nodal Prices • IFM IR and RUC Binding Constraints Shadow Prices • IFM IR and RUC RC Nomogram/Branch and Interties Shadow Prices

Scenario Number	Structured scenario	
	• IFM IR and RUC RC MPM Intertie Constraint Competitive Path • IFM IR and RUC RC Aggregate Awards • IRU/IRD Requirements • IRU/IRD Requirement Thresholds • IRU/IRD Requirements Input Polynomials • IRU/IRD Requirements Uncertainty Histograms • IRU/IRD Forecasts • IRU/IRD Demand Curves • IFM Forecast Movement • Payment and No-Payments of IR/RC-Charge Code Settlements Amounts Data CMRI: • IR and RC DAB Curves • IFM IRU and RUC RCU Mitigated Bids • IFM IR and RUC RC Resource Awards • IFM IR and RUC RC Resource Prices • IFM IR and RUC RC LSE Resource Awards • IRU/IRD LOC for Overlapping RA Capacity DA/Base Schedule Forecasted Movement Data	
Anticipated Settlement Outcome	N/A	
Expected Settlement Outcome	Verify for changed set of activated transmission constraints : • IFM IR & RUC RC Payments • IFM IR & RUC RC Cost Allocation • IR DA and RC RT BCR Settlements • Inclusion of IR & RC in GMC Settlements • IRU/IRD & RCU/RCD Unavailability No-Pay Charges • IR and RC Unavailability No-Pay Charges Priority • IR – FRP RTM Ramp Deviation Settlements • FMM Forecasted Movement Deviation Settlements • Settlements of Overlapping RA Capacity for True-Up Settlements Mechanism • Accounting IRU/IRD in CRR Settlements for CAISO and EDAM BAAs	

Scenario Number	Structured scenario	
3	Description	Demonstrate settlements charge codes for IRU/IRD bids in case of bid cost recovery
	ISO Actions	Run DAM and Settlements Trigger bid cost recovery for few resources.
	WEIM Market Participant Actions	N/A
	ISO Market Participant Actions	SCs to submit competitive DA bids
	Expected Outcome	Review Settlements for BCR charge codes
	Anticipated Settlement Outcome	Settlements report to publish resources with BCR charge codes
	Expected Settlement Outcome	CC 6630, 6636, 6637

Scenario Number	Structured scenario	
4	Description	Demonstrate settlements charge codes for RCU/RCD bids in case of bid cost recovery
	ISO Actions	Run RT market and Settlements Trigger bid cost recovery for few resources.
	WEIM Market Participant Actions	N/A
	ISO Market Participant Actions	SCs to submit competitive RT bids
	Expected Outcome	Review Settlements for BCR charge codes

Scenario Number	Structured scenario	
	Anticipated Settlement Outcome	Settlements report to publish resources with BCR charge codes
	Expected Settlement Outcome	CC 6620, 66200, 6678, 66780, plus a TBD new CC.

3. ISO Market Simulation Contact

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