



California ISO

Market Simulation Plan Fall and Independent Releases 2017

**Initiatives – EIM Portland General Electric, Bidding
Rules Enhancements - Part B and CMRI Access Control
Resource Level**

Version: 1.11

October 4, 2017

 California ISO	Market Simulation Plan Program Office	Template Version: 1.1 Template Date: 03/30/2011
	ISO External Market Simulation Plan	Document Version: 1.11 Effective Date: 10/04/2017

Location of Document – [\(link\)](#)

Revision History

Date	Version	Description	Author
05/03/17	Draft	Initial draft	Christopher McIntosh
05/05/17	1.0	Ready for Publication	Christopher McIntosh
05/24/17	1.1	Removed May MAP Stage Maintenance	Christopher McIntosh
06/02/17	1.2	Updated to Latest EIM Settlements Calendar	Christopher McIntosh
06/20/17	1.3	Updated new Market Simulation Start and End Dates, Settlements Calendar	Christopher McIntosh
07/11/17	1.4	Pre Simulation dates updated	Christopher McIntosh
07/17/17	1.5	Removed Commitment Cost Phase 3 from Simulation scope, MF and CMRI Tech Spec component remains	Christopher McIntosh
08/27/17	1.6	Updated Pre Simulation Calendar, initiative simulation start dates	Christopher McIntosh
08/29/17	1.7	New BREB Market Simulation Start date	Christopher McIntosh
09/05/17	1.8	EIM 2017 Removed from Fall 2017 Scope, Fall 2017 is no longer a release, BREB becomes independent; removed settlements calendar for Fall 2017	Christopher McIntosh
09/12/17	1.9	BREB end date extended	Christopher McIntosh
09/25/17	1.10	BREB dates modified	Christopher McIntosh
10/04/17	1.11	Settlements Calendar Added	Christopher McIntosh

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1. Introduction

The objective of this document is to provide the information needed by market participants in order to engage in the Fall and Independent 2017 Releases initiatives, thereby enabling them to smoothly transition and utilize the new features and functionality that will be available when they go into production.

1.1 Scope of Initiatives

ISO release planning sites for the Fall and Independent 2017 Release initiatives –

1. EIM Portland General Electric – ([link](#))
2. Bidding Rules Enhancements - Part B – ([link](#))
3. CMRI Access Control Resource Level

1.2 Market Simulation

The ISO conducts market simulations on a regular basis as part of its process of bringing new capabilities to its markets. This provides participants an opportunity to test their systems and procedures in advance of the market implementation. The market simulation process serves a number of purposes for both the ISO and market participants. It also facilitates an effective market operations dress rehearsal and helps expedite a smooth production launch. The benefits of market simulation may include but are not limited to:

- Allowing for system or procedural problem identification and mitigation before the market is operationally or financially binding.
- Enabling market participants to observe the behavior of ISO systems and markets in a simulated production environment, particularly in regards to new functions and features introduced through the addition of the modifications included in the Fall and Independent 2017 Release initiatives.
- Establishing confidence in the operational processes and systems associated with the new market functionality implementation.
- Providing a hands-on environment to allow participants to interact with new and unique features and functionality.
- Providing an environment where market participants can scrutinize and tailor their own tools, applications, and business practices to participate in new market functionality.

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- Providing a means of capturing additional market participant input and feedback regarding the implementation of the new market features and functionality, beyond what might have been received in the stakeholder process.
- Providing market participants the tools to help determine:
 - Proper exchange of market related data and validation of new timelines.
 - Common understanding of data submittal requirements and timelines.
 - Familiarity with market rules and timelines.
- An opportunity to verify the ISO Bid-to-bill process in a pre-production environment that includes simulated market and operational data inputs. Allowing the market participants to verify systems, process and procedures which may need modifying due to the functional changes tied to the release.

1.3 Schedule Summary

The Portland General market simulation will begin June 6, 2017 and end on trade date July 6, 2017. The Independent 2017 Releases initiatives simulations will begin September 6, 2017 and end on trade date October 20, 2017. ISO will continue to have MAP Stage available for market participants to support regression testing if necessary.

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2. Market Simulation Approach

2.1 High Level Overview

The timeline for the Fall and Independent 2017 Releases initiatives market simulations is identified below. Critical pre-simulation activities are identified in section 2.2 of this document.

<u>Fall and Independent 2017 Releases Initiatives</u>	<u>Start Date</u>	<u>Start Date (Trade Date)</u>	<u>End Date</u>	<u>Structured Simulation Start (Trade Date)</u>	<u>Expected Participation</u>
<u>Fall 2017 Release Market Simulation</u>					
EIM Portland General Electric	6/6/17	6/6/17	7/6/17	6/6/17	EIM Entities
<u>Independent 2017 Release Market Simulation</u>					
Bidding Rules Enhancements - Part B	9/22/17	9/22/17	10/20/17	N/A	EIM Entities and CAISO Market Participants
CMRI Access Control Resource Level	9/6/17	9/6/17	9/29/17	N/A	EIM Entities and CAISO Market Participants

2.2 Pre-Simulation Activities

The Fall and Independent 2017 Releases initiatives market simulations will be conducted in the MAP Stage environment. Participants will need to obtain access to this environment if they do not already have access. The ISO envisions participants may wish to access Master File (MF), Market Participant Portal (MPP), Outage Management System (WebOMS), Scheduling Infrastructure and Business Rules (SIBR), CAISO Market Results Interface (CMRI), Automated Dispatch System (ADS), and Market Results Interface Settlements (MRIS). For those who do not already have access to the MAP Stage systems, access can be requested by completing an Application Access Request Form (AARF) or modifying existing certificates through the Access Identity Management (AIM) application. Information regarding the completion of AIM and AARF forms can be found on the ISO portal under application access request forms and application installation instructions heading.

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Information pertaining to accessing the externally facing ISO environments is detailed in the System Access Information (SAI) for market participants document located on the ISO public site under the “Systems Access and Security Information” heading.

Systems Access Information Document – ([link](#))

2.3 Pre-Simulation and Simulation Activities Calendar

Activity	Description	Timeframe
MAP Stage CMRI Closure	MAP Stage CMRI closed for market simulation preparation.	08/31/17 - 09/06/17
Independent 2017 Releases Market Simulation Kick-Off Teleconference	ISO to conduct a teleconference to provide MPs with a Independent 2017 Releases market simulation briefing	08/31/17
Transport Layer Security (TLS)	The California ISO will be deactivating Transport Layer Security (TLS) 1.0 and 1.1	09/06/17
Independent 2017 Releases Connectivity Begins	Independent 2017 Releases market simulation in the MAP Stage environment connectivity is available for participants	09/06/17
Independent 2017 Releases Market Simulation Begins	Independent 2017 Releases market simulation in the MAP Stage environment begins	09/19/17

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3. General Information

3.1 Participant Observation and Inputs

During the Fall and Independent 2017 Releases initiatives market simulations, participants will be able to observe market results in the same applications that are available in Production: OASIS, CMRI, ADS, etc.

Participants can input data into the ISO Bid-to-bill using all systems available in Production: MRI-S, SIBR, ADS and OMS etc.

3.2 Release Web Service Changes

ISO has provided all the necessary technical specifications for the Web Service changes in scope for Fall and Independent 2017 Releases –

ALFS Tech Specs – ([link](#))

CMRI Tech Specs (Commitment Cost Enhancements Phase 3 Tech Specs Changes in Scope) – ([link](#))

Master File Tech Specs (Commitment Cost Enhancements Phase 3 Tech Specs Changes in Scope) – ([link](#))

Resource Data Template (RDT) submission and or modifications for the Fall and Independent 2017 Releases initiatives will take 10 business days to process. Prior to the start of simulation all modified RDT's for the Fall and Independent 2017 Releases should be emailed to RDT@caiso.com please also Cc MarketSim@caiso.com. Once simulation begins RDT's should be submitted to the MAP Stage Master File with an expected turnaround time of 10 business day, similar to Production.

ISO will be settling unstructured scenario trade dates for the Fall and Independent 2017 Releases simulations.

ISO will be offering Settlements statements during the Fall and Independent 2017 Releases market simulation. Similar to Production the ISO will be using estimated Meter data with our initial statements and MP submitted meter data where applicable, for the Re-calc statements.

3.3 Known Issue List

ISO will create and publish a known issues list and post in on the release planning site.

3.4 Structured Scenarios

For initiatives not listed, there will be no structured scenarios executed –

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1. EIM Portland General Electric – ([link](#))

3.5 ISO’s Approach

Unstructured Simulation –

If a MP would like to see specific market conditions for their resource please contact ISO at MarketSim@caiso.com preferably TD-1 prior to the unstructured TD’s DAM or RT market run.

Regression Simulation –

If a MP would like to see specific market conditions for their resource please contact ISO at MarketSim@caiso.com preferably TD-1 prior to the regression TD’s DAM or RT market run.

3.6 Configuration Guides and Payment Calendars

ISO Settlements Calendar and Configuration guides Fall and Independent 2017 Releases -

- Draft Settlements Configuration Guides – ([link](#))

3.7 Settlements Calendars –

Independent 2017Calendar -

Calendar Day	CMRI T+1B	Publish Initial Statement T+4B	Submit Meter Data by T+4B 18:00 for Recalc	Publish Recalc Statement T+8B	Publish Market Invoice
09-Oct-17					
10-Oct-17					
11-Oct-17					
12-Oct-17	11-Oct-17				
13-Oct-17					
14-Oct-17					
15-Oct-17					

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16-Oct-17					
17-Oct-17		11-Oct-17	11-Oct-17		
18-Oct-17					
19-Oct-17					
20-Oct-17					
21-Oct-17					
22-Oct-17					
23-Oct-17				11-Oct-17 Price correction	11-Oct-17 R
24-Oct-17					
25-Oct-17					
26-Oct-17					
27-Oct-17					
28-Oct-17					
29-Oct-17					

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4. Market Simulation Support

4.1 Routine Functions

All normal support processes should be followed for support functions that are not specific to the market simulation. These include system connectivity issues, system availability issues, user account and permissions issues, etc. The ISO Help Desk can be reached 24x7, 365 days a year @ (916) 351-2309.

4.2 Market Simulation-Specific Support

The ISO will operate a Market Simulation Support Center throughout the market simulation. This support center is focused on providing support for market simulation specific issues. Hours of operation of the Market Simulation Support Center are 09:00 – 18:00 PPT, Monday through Friday.

Issues will be tracked through the ISO’s Case Management System, CIDI. Simple questions that can be answered in a single call can be asked without opening a CIDI case, but if the issue cannot be resolved on the call, then participants will need to open a CIDI case. Please identify the CIDI case as a Fall 2017 or Independent 2017 Releases simulation related question and not a Production question.

4.3 Market Simulation Communication

Dial in numbers and call schedules to be posted on the ISO Calendar – [\(link\)](#)

4.4 Market Simulation Environment Maintenance

Fall and Independent 2017 Releases market simulation maintenance will take place Monday morning through Tuesday morning as the weekly maintenance window.

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5. Market Simulation Trainings

Please find information regarding Fall and Independent 2017 Releases market simulation training offerings at the following locations -

- Training calendar – [\(link\)](#)
- ISO training contact - MarketTraining@caiso.com

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6. Market Simulation Execution and Exceptions

MAP Stage has been setup with specific application characteristics and data flows to foster successful simulation, please note these changes are made to facilitate a simulation and will not be implemented in Production –

The ISO will upload a previous day’s production bid set for the Day Ahead Markets (DAM) by 10:00 PPT daily.

Market participants can overwrite these bids between 10:00 PPT and 11:00 PPT when the DAM closes.

DAM will close @ 11:00 PPT and the results will be published by 14:00 PPT daily unless it is a Structured Scenario day, it may take ISO longer to publish DAM due to Scenario setup and verification.

Real Time (RT) template bids will be built from DAM awards as the standard process, ISO may also submit RT bids if it deems necessary.

RT Bid markets for a specific Trade Date (TD) open automatically @ 11:00 PPT TD-1.

Market participants are encouraged to bid into the Real Time Markets (RTM) to foster a more realistic simulation, the only exceptions are during structured scenario executions were identified.

Market participants will need to register for a tagging test bed user identification if they would like to simulate E-Tagging, if no E-Tag is submitted ISO will “auto tag” on your behalf, limit one registration per SCID.

ISO has activated auto approval for all OMS submissions and changes in MAP Stage.

Please note the timeframes for each Settlements statement publication period are different. Settlements timelines are covered in section 3.5 above.

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7. Documentation Links

Fall and Independent 2017 Releases Initiatives Release Planning Site – [\(link\)](#)

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8. ISO Market Simulation Contact

Please contact MarketSim@caiso.com if you have any questions or concerns regarding this plan and its content.