



Market Simulation – Fall 2019 Release

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September 30, 2019

Recordings

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Agenda

- MAP Stage Availability
- Fall 2019 Release Market Simulation Initiatives & Timelines
- External Interface Changes
- Known Issues
- Structured Scenarios Settlement Calendar
- Initiatives
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 - Energy Storage and Distributed Energy Resources Phase 3A
 - RMR and CPM Enhancements
 - Local Market Power Mitigation Enhancements
 - EIM 2019 Enhancements
 - Real-Time Market Neutrality Settlement
 - FERC Order 841 – Energy Storage Resources
 - Phase 2
 - Commitment Costs and Default Energy Bid Enhancements Phase 1
- Next Steps

Fall 2019 Release MAP Stage Availability

- Refer to MAP Stage portal <https://portalmap.caiso.com> for system availability information
- Current MAP Stage Scheduled Maintenance
 - CMRI outage, September 30 for EIM 2019 Enhancements deployment, available October 2
 - MAP Stage Weekly Maintenance Window
 - Monday 0700 PT thru Tuesday 0900 PT

Fall 2019 Release Market Simulation Initiatives & Timelines

Fall 2019 Release Initiatives	Start Date	Start Date (TD)	End Date	Structured Simulation Start (Trade Date)	Expected Participation
Fall 2019 Release Market Simulation Phase 1	09/03/19	09/04/19	10/11/19	09/18/19	
<i>Energy Imbalance Market (EIM) Enhancements 2019 (BAAOP)</i>				N/A	EIM Market Participants
<i>Energy Storage and Distributed Energy Resources (ESDER) Phase 3A</i>				Scenarios Execution TD 9/18	ISO Market Participants EIM Market Participants
<i>Federal Energy Regulatory Commission (FERC) Order 841</i>				N/A	ISO Market Participants EIM Market Participants
<i>Local Market Power Mitigation Enhancements (LMPME)</i>				Scenarios Execution TD 09/25	ISO Market Participants EIM Market Participants
<i>Real-Time (RT) Market Neutrality Settlement</i>	09/25/19	09/25/19		N/A	EIM Market Participants
<i>Reliability Must-Run (RMR) and Capacity Procurement Mechanism (CPM) Enhancements</i>				Scenarios Execution TD 09/25	ISO Market Participants
Fall 2019 Release Market Simulation Phase 2	10/14/19	10/15/19	11/04/19	N/A	
<i>Commitment Costs and Default Energy Bid Enhancements (CCDEBE)</i>				N/A	ISO Market Participants EIM Market Participants
<i>Energy Imbalance Market (EIM) Enhancements 2019 (BSAP Interface Changes and Reporting Features)</i>	Reporting Features 10/2/19			N/A	EIM Market Participants

Market Simulation Plan:

<http://www.caiso.com/Documents/MarketSimulationPlan-Fall2019Release.pdf>

Fall 2019 Release – System Interface Changes

MF

Project	Change Type	API Service Name & Major Version, Artifacts	Minor Version	RDT	MAP Stage	Technical Specifications
ESDER3A LMPME CCDEBE1	Modify	RetrieveGeneratorRDT_MFRDv4 RetrieveGeneratorRDT_MFRDv4_DocAttach	20191001		Sep 5, 2019	5.1
ESDER3A LMPME	Modify	SubmitGeneratorRDT_MFRDv4 SubmitGeneratorRDT_MFRDv4_DocAttach	20191001	GRDT v13.0	Sep 5, 2019	5.1

SIBR/BSAP

System	Project	Change Type	API Service Name & Major Version, Artifacts	MAP Stage	Technical Specifications
SIBR	CCDEBE1	Modify	RetrieveCleanBidSet_SIBRv5 RetrieveCleanBidSet_SIBRv5_DocAttach	Oct 14, 2019	v13.1
SIBR	CCDEBE1	Modify	RetrieveCurrentBidResults_SIBRv5 RetrieveCurrentBidResults_SIBRv5_DocAttach	Oct 14, 2019	v13.1
SIBR	CCDEBE1	Modify	SubmitRawBidSet_SIBRv5 SubmitRawBidSet_SIBRv5_DocAttach	Oct 14, 2019	v13.1
BSAP	EIM 2019	Modify	RetrieveBalancingTestResults_BSAPv2 RetrieveBalancingTestResults_BSAPv2_DocAttach	Oct 14, 2019	1.7.1

Fall 2019 Release – System Interface Changes

CMRI

Project	Change Type	UI Change	API Service Name & Major Version, Artifacts	MAP Stage	Technical Specifications
LMPME	Modify	Tab: Default Bids Existing Report: Default Energy Bid Curves	RetrieveDefaultBidCurves_CMRIv2 RetrieveDefaultBidCurves_CMRIv2_DocAttach	Sep 12, 2019	3.9.1
CCDEBE 1	Modify	Tab: Default Bids Existing Report: Default Commitment Costs	RetrieveExternalDefaultCommitmentCost_CMRIv1 RetrieveExternalDefaultCommitmentCost_CMRIv1_DocAttach	Oct 14, 2019	3.9.1
EIM 2019	New	Tab: Energy Imbalance Market New Report: Resource Operating Limits	RetrieveEIMResourceOperatingLimit_CMRIv1 RetrieveEIMResourceOperatingLimit_CMRIv1_DocAttach	Oct 2, 2019	3.9.1
EIM 2019	New	Tab: Real-Time New Report: Resource Operating Limits	RetrieveResourceOperatingLimit_CMRIv1 RetrieveResourceOperatingLimit_CMRIv1_DocAttach	Oct 2, 2019	3.9.1

OASIS

Project	Change Type	UI Change	API Service Name & Major Version, Artifacts	MAP Stage	Technical Specifications
EIM 2019	New	Tab: ENERGY New Report: Transmission Loss	ENE_TRANS_LOSS	Oct 2, 2019	5.1.9

Known Issues -

#	System	Summary	Status	Estimated Fix Date	CIDI #
1	MRI-S	MSG resources settlements statements may not reflect accurately because the MMA Transition Cost functionality is not currently implemented	Open	End of the year	N/A
2	RTM	Hourly resource rounding issue with PDR's	Open	ISO validation taking place	216930
3	SIBR	SIBR Rule Net Benefit Test for TD 9/18 was set to \$-30	Closed	Corrected 9/19 forward	216897
4	RTM	HE 18 and 19 TD 9/18 Award generated bids failed to make it to RTM	Closed	Corrected 9/19 forward	N/A
5	CMRI	ExternalDefaultCommitmentCost_v1.xsd incorrectly states optional element is mandatory	Open	Documentation to be corrected ASAP	216521

Structured Scenario Settlements Calendar -

Calendar Day	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
23-Sep-19	Monday					
24-Sep-19	Tuesday		18-Sep	18-Sep	12-Sep	
25-Sep-19	Wednesday		19-Sep	19-Sep	13-Sep	
26-Sep-19	Thursday	25-Sep	Monthly Initial 18-Sep - 19-Sep		Monthly Recalc 12-Sep - 13-Sep	Daily Recalc 12-Sep, 13-Sep Monthly Recalc 12-Sep - 13-Sep
27-Sep-19	Friday	26-Sep				Daily Initial 18-Sep, 19-Sep Monthly Initial 18-Sep - 19-Sep
28-Sep-19	Saturday					
29-Sep-19	Sunday					
30-Sep-19	Monday				18-Sep	
01-Oct-19	Tuesday		25-Sep	25-Sep	19-Sep	
02-Oct-19	Wednesday		26-Sep	26-Sep	Monthly Recalc 18-Sep - 19-Sep	Daily Recalc 18-Sep, 19-Sep Monthly Recalc 18-Sep - 19-Sep
03-Oct-19	Thursday	2-Oct	Monthly Initial 25-Sep - 26-Sep			Daily Initial 25-Sep, 26-Sep Monthly Initial 25-Sep - 26-Sep
04-Oct-19	Friday	3-Oct				
05-Oct-19	Saturday					
06-Oct-19	Sunday					
07-Oct-19	Monday				25-Sep	
08-Oct-19	Tuesday		2-Oct	2-Oct	26-Sep	
09-Oct-19	Wednesday		3-Oct	3-Oct	Monthly Recalc 25-Sep - 26-Sep	Daily Recalc 25-Sep, 26-Sep Monthly Recalc 25-Sep - 26-Sep
10-Oct-19	Thursday	9-Oct	Monthly Initial 02-Oct - 03-Oct			Daily Initial 02-Oct, 03-Oct Monthly Initial 02-Oct - 03-Oct
11-Oct-19	Friday	10-Oct				

Energy Storage & Distributed Energy Resources

Phase 3A

- **Timeline:** September 3 – October 11
- **Structured:** September 16 – September 27
- **Structured Scenarios Execution Date:** Trade Date September 18
- **DRRS Code:** Available September 18
- **Scenario #3:** 15 Min PDR BCR, can be validated on the September 18 Initial Statement.

Reliability Must-Run and Capacity Procurement Mechanism Enhancements

- **Timeline:** September 3 – October 11
- **Structured:** September 16 – September 27
- **Structured Scenarios Execution Date:** Trade Date September 25

Local Market Power Mitigation Enhancements

- **Timeline:** September 3 – October 11
- **Structured:** September 16 – September 27
- **Structured Scenarios Execution Date:** Trade Date September 25

Energy Imbalance Market Enhancements 2019

- **Timeline: September 3 – November 4**

Area	Features/Scope	Timing Status
BAAOP	<ul style="list-style-type: none"> ▪ Transformer Flow – In MAP Stage ▪ Resource Flex Ramping ▪ Flexible Ramping Sufficiency Results ▪ EIM Area Summary - In MAP Stage ▪ ETSR Detail ▪ EIM Threshold Display and Calculations ▪ RTD Dispatch Control – In MAP Stage ▪ RTPD Dispatch Control – In MAP Stage 	Available
Reporting Features and BSAP Interface Changes	<ul style="list-style-type: none"> ▪ Loss Transmission OASIS Report ▪ CMRI Resource Operating Limits Report ▪ CMRI EIM Operating Limits Report ▪ Copy and Modify Base schedule (BSAP) EIM19-BRQ1270 ▪ Add retrieve aggregate service for BS Deviation (BSAP) EIM19-BRQ1560 	BSAP Target availability in MAP Stage October 14, CMRI and OASIS Target availability in MAP Stage October 2

Real-Time Market Neutrality Settlements

- **Timeline:** September 25 – October 11

FERC Order 841

- **Timeline:** September 3 – October 11

Commitment Costs and Default Energy Bid Enhancements Phase 1

- **Timeline:** October 14 – November 4
- “CommitmentCostType” is an optional element in the ExternalDefaultCommitmentCost_v1 payload, XSD to be updated to match the Tech Specs

Next Steps

- The next teleconference is scheduled on Thursday, October 3rd at 1400 PPT

Reference Slides

Fall 2019 Release MAP Stage Connectivity Testing

- **Timeline Phase 1:** September 3 – September 13
- **Timeline Phase 2:** October 14 – October 18

Fall 2019 Release MAP Stage Data Setup

- Production data seeding the environment is from August 27th, 2019
- CIRA accepting September and October Supply plans

Market Simulation Issue Management

- Submit all issues to the CIDI case management system
- CIDI tickets must have “**Functional Environment**” = “**Market Simulation Fall 2019**” to be reviewed by ISO SMEs

ISO Market Simulation Support

- **Hours:** Monday thru Friday 0900-1800 PPT
- **Market Simulation Coordinator Phone:** (916) 351-2205
- **ISO's 24x7 Service Desk:** (916) 351-2309 (Connectivity – UI or API)
- **Email:** MarketSim@caiso.com

Market Simulation Issue Management

- Submit all issues to the CIDI case management system
- CIDI tickets must have “**Functional Environment**” = “**Market Simulation Fall 2019**” to be reviewed by ISO SMEs

Fall 2019 Release Communication Plan

- **Schedule**

<i>Monday</i> September 9, 16, 23, 30 October 7, 14, 21, 28	<i>Tuesday</i> September 3	<i>Thursday</i> August 29 September 5, 12, 19, 26 October 3, 10, 17, 24, 31
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- **Connection Information**

- **Web Conference Information**

- Web Address: <https://caiso.webex.com/meet/MarketSim>
 - Meeting Number: 962 067 710
 - Audio connection instructions will be available after connecting to the web conference. When prompted, select "Call me" and enter the phone number you will use during the call. You will be called by the conference shortly.

- **Conference Call Information**

- Dial-in Number: 866-528-2256
 - International Dial-in: 216-706-7052
 - Access Code: 202 249 0