

Market Simulation – Fall 2021 Release

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Agenda

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- Fall 2021 Release Market Simulation Initiatives & Timelines
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 - Energy storage and distributed energy resources phase 4 –implementation
 - Hybrid resources phase 2A
 - Intertie shadow pricing resolution
 - Western EIM base schedule submission deadline phase 1
 - Short-long start definitions
- Known Issues
- Fall 2021 System Interface Changes
- Next Steps



Fall 2021 Release MAP Stage Availability

- Refer to MAP Stage portal <u>https://portalmap.caiso.com</u> for system availability information
- Current MAP Stage Scheduled Maintenance
 - None
- Upcoming MAP Stage Scheduled Maintenance
 - Market 9/17 (Network Model update)- 3 Hour interruption
 - CMRI Unavailable 9/17-9/22
 - OASIS Unavailable 9/17-9/21
 - SIBR Unavailable 9/24
- MAP Stage Weekly Maintenance Window
 - Friday



Fall 2021 Release Market Simulation Initiatives & Timelines

Fall 2021 Release Initiatives	<u>Start</u> Date	<u>Start Date</u> (Trade Date)	End Date	<u>Structured</u> Simulation Start (Trade Date)
Fall 2021 Release Market Simulation	08/30/21	09/07/21	10/01/21	09/07/21
Real-time settlement review phase 2		09/07		09/16 & 9/28
Energy storage and distributed energy resources phase 4 –implementation		09/21		09/23
Hybrid resources phase 2A		09/21		NA
Intertie shadow pricing resolution		09/27		NA
Western EIM base schedule submission deadline phase 1				Complete (4/15-4/23)
Short-long start definitions		TBD		NA

Market Simulation Plan:

http://www.caiso.com/Documents/MarketSimulationPlan-Fall2021Release.pdf



Market Simulation Initiatives

- Timeline : September 07 October 01
- Real-time settlement review phase 2
 - Structured : September 16 and September 28
 - Structured Scenarios document -<u>http://www.caiso.com/Documents/MarketSimulationStructuredScenarios-RealTimeSettlementReview.pdf</u>
 - Business Requirements Specification -http://www.caiso.com/Documents/BusinessRequirementsSpecification-Real-TimeSettlementReview.pdf
- Timeline : September 21 October 15

• Energy storage and distributed energy resources phase 4 – implementation

- Structured : September 23
- Business Requirements Specification -<u>http://www.caiso.com/Documents/BusinessRequirementsSpecification-EnergyStorageandDistributedEnergyResourcesPhase4.pdf</u>
- Structured Scenarios document –
 http://www.caiso.com/Documents/MarketSimulationStructuredScenarios-EnergyStorageandDistributedEnergyResourcesPhase4.pdf



Market Simulation Initiatives

• Timeline : September 07 – October 01

Hybrid resources phase 2A

 Business Requirements Specification -http://www.caiso.com/Documents/BusinessRequirementsSpecifications-HybridResourcesPhase2.pdf

Intertie shadow pricing resolution

 Business Requirements Specification -<u>http://www.caiso.com/Documents/BusinessRequirementsSpecification-IntertieShadowPricingResolution.pdf</u>

• Western EIM base schedule submission deadline phase 1

- Business Requirements Specification http://www.caiso.com/Documents/BusinessRequirementsSpecification-BaseScheduleSubmissionDeadline.pdf
- Short-long start definitions (Sept 27- Oct 15)
 - Business Requirements Specification -<u>http://www.caiso.com/Documents/BusinessRequirementsSpecificationv11-Short-LongStartDefinitions.pdf</u>



Known Issues

S. No.	Issue	Fix Date
	Unable to submit hourly SOC Lower Limit and SOC	
1	Upper Limit via API	21-Sep



2021 - System Interface Changes

MRI-S				
Project	API Service Name & Major Version, Artifacts	MAP-Stage	Production	Technical Specifications
OSI 2021	Add support for new retrieve requestType: MONITORING_DATA RetrieveMeterData_STLMTv1_AP RetrieveMeterData_STLMTv1_DocAttach_AP percentResidential is returned (for BASE & CBL only) Fault code 1008 details changed to: "Valid values are 5, 15 or 60 for submission and 5, 10, 15 or 60 for meter data retrieve request or 60 for monitoring data retrieve request	✓ 8/30 Thru 9/17	9/22/21	✓ v2.7; 8/18/21

MF							
Project	API Service Name & Major Version, Artifacts	MAP-Stage	Production	Technical Specifications			
Variable Operations & Maintenance	RetrieveGeneratorRDT_MFRDv5_AP; 20211001 RetrieveGeneratorRDT_MFRDv5_DocAttach_AP; 20211001 SubmitGeneratorRDT_MFRDv5_DocAttach_AP; 20211001 Added the following Resource attributes to GRDT: ML_ADDER SU_ADDER ML/SU_ADDER_TYPE Added the following attributes to Configuration level for GRDT: ML_ADDER SU_ADDER ML/SU ADDER ML/SU ADDER TYPE	✓ 8/30/21	1/1/22 – Activation Page 9	✓ 8.0.0; 5/27/21			

https://developer.caiso.com



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Fall 2021 - System Interface Changes

Project	System	API Service Name & Major Version, Artifacts	Technical Specifications	MAP-Stage
	•	RetrieveGeneratorRDT_MFRDv5_AP; 20211001		
		RetrieveGeneratorRDT_MFRDv5_DocAttach_AP; 20211001		
		SubmitGeneratorRDT_MFRDv5_AP; 20211001		
		SubmitGeneratorRDT_MFRDv5_DocAttach_AP; 20211001		
	MF		✓ 5/27/21	✓ 8/30/21
		Added the following Resource attributes to GRDT:		
		STORAGE VARIABLE COST		
ESDER4		MAX_DAILY_RUN_TIME		
2002		STORAGE_RANK_LMPM		
	SIBR	SubmitRawBidSet v5	√ 8/3/21	✓ 9/1/21
	SIBR	RetrieveCleanBidSet v5	√ 8/3/21	✓ 9/1/21
-	SIBR	RetrieveCurrentBidResults v5	√ 8/3/21	✓ 9/1/21
-	CMRI	Update to Default Energy Bid Curves with new Default Bid Type "Storage"	✓ v5.0.0; 6/4/21	9/22/21
-	CIVILLI	Added new service version for Public bids to introduce	* \$5.0.0, 0/ 7/21	JJ ZZJ ZI
	OASIS	new elements.	✓ v7.0.0; 6/4/21	9/22/21
		RetrieveGeneratorRDT MFRDv5 AP; 20211001		
		RetrieveGeneratorRDT_MFRDv5_AP, 20211001 RetrieveGeneratorRDT_MFRDv5_DocAttach_AP; 20211001		
		SubmitGeneratorRDT_MFRDv5_AP; 20211001		
				✓ 8/30/21
	MF	SubmitGeneratorRDT_MFRDv5_DocAttach_AP; 20211001		
Hybrid Resources P2		Added the following Resource attributes to GRDT:	✓ 5/27/21	
Hybrid Nesources F2		COMPONENT ID	• 5/2//21	0/30/21
		-		
		CO_LOCATED		
		FUEL_TYPE (Added "HYBD" enum)		
		Added Hybrid Components section in the elements table for GRDT		
		Added new service version for Intertie Constraint Shadow		
		Prices, Interval Intertie Constraint Shadow Prices,		
		Contingency Dispatch Intertie Constraint Shadow Prices		
		and MPM Intertie Constraint Shadow Prices reports to		
		introduce new element.		
		Added new service version for below services as there are		
		impacts to Group services due to Intertie Constraint		
artia Shadow Drising Desclution	OASIS	Shadow Prices & MPM Intertie Constraint Shadow Prices	✓ v7.0.0; 6/4/21	9/22/21
ertie Shadow Pricing Resolution	UASIS			9/22/21
		services. However, there are no element changes to the		
		artifacts.		
		- Locational Marginal Prices		
		- AS Clearing Prices		
		- Nomogram/Branch Shadow Prices		
		- MPM Intertie Constraint Competitive Paths		
		- MPM Nomogram/Branch Shadow Prices		
California IS	-	- MPM Nomogram/Branch Competitive Paths COPYRIGHT © 2016 by California ISO. All Rights Reserve		



• The next teleconference is scheduled on Sept 20 at 2 PM



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Reference Slides



ISO Market Simulation Support

- Hours: Monday thru Friday 0900-1800 PDT
- ISO's 24x7 Service Desk: (916) 351-2309 (Connectivity – UI or API)
- Email: <u>MarketSim@caiso.com</u>



Fall 2021 Release Communication Plan

Schedule

Monday	Tuesday	Thursday
August 30	September 7	August 26
September 13,20,27		September 2,9,16,23,30

Connection Information

- Web Conference Information

- Web Address: <u>https://caiso.webex.com/meet/MarketSim</u>
- 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:
 - 1-844-517-1271 (Toll Free)
 - 1-682-268-6591
- Access Code: 962 067 710



Fall 2021 Release MAP Stage Connectivity Testing

• Timeline : Aug 30 – Sept 06



Fall 2021 Release - Market Simulation Overview

Wk	Date	ISO	Market Participants
1	8/30-9/06	Mkt Sim Readiness Testing	Connectivity
2	9/07-10/01		Structured Scenarios
3	9/08-10/01		Unstructured Simulation

Calendar Day	Day	CMRI T+1B	Submit Meter Data by T+2B 10:00 for Initial	Publish Initial Statement T+58	Submit Meter Data by T+5B 18:00 for Recalc	Publish Recalc Statement T+8B	Publish Market Invoice
			T+9B	T+9B	T+70B	T+70B	
30-Aug-21	Monday						
31-Aug-21	Tuesday						
01-Sep-21	Wednesday	31-Aug					
02-Sep-21	Thursday		31-Aug				
03-Sep-21	Friday	2-Sep					
04-Sep-21	Saturday						
05-Sep-21	Sunday						
06-Sep-21	Monday				CAISO Holiday		
07-Sep-21	Tuesday		2-Sep				
08-Sep-21	Wednesday	7-Sep		31-Aug	31-Aug		
09-Sep-21	Thursday			Monthly Initial 31-Aug			Daily Initial 31-Aug
			7-Sep				Monthly Initial 31-Aug
10-Sep-21	Friday	9-Sep		2-Sep	2-Sep		

Settlements TDs Tue/Thu Maintenance Friday <u>Market Simulation Plan</u> <u>Market Simulation Settlements Calendar</u>



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Market Simulation Issue Management

- Submit all issues to the CIDI case management system
- CIDI tickets must have "Functional Environment" = "Market Simulation Fall 2021" to be reviewed by ISO SMEs



Market Simulation Registration Details

MP's will need to register their request with the ISO to participate in this simulation via the MarketSim@caiso.com mailbox.

Date of registration : August 24th, 2021.

We will do our best to accommodate for late registration

