



# Market Simulation – Summer 2021 Release

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# Recordings

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# Agenda

- Summer 2021 Release MAP Stage Availability
- Summer 2021 Release Market Simulation Initiatives & Timelines
- Initiatives
  - FERC order 831 - pricing parameters, import bid screening, and validation
  - Resource adequacy enhancements track 1
  - Summer 2021 readiness
- Known Issues
- Summer 2021 - System Interface Changes
- Next Steps

# Summer 2021 Release MAP Stage Availability

- Refer to MAP Stage portal <https://portalmap.caiso.com> for system availability information
- Current MAP Stage Scheduled Maintenance
  - SIBR UI/API TBD
  - OMS UI/API 6/24-6/28
- MAP Stage Weekly Maintenance Window
  - Friday

# Summer 2021 Release Market Simulation Initiatives & Timelines

<b>Summer 2021 Release Initiatives</b>	<b>Start Date</b>	<b>Start Date (Trade Date)</b>	<b>End Date</b>	<b>Structured Simulation Start (Trade Date)</b>	<b>Go Live Date</b>
<b>Summer 2021 Release Market Simulation</b>	04/26/21	04/26/21	05/28/21	05/10/21	
<b>FERC order 831</b>				<b>05/25-05/27, 6/3-6/4</b>	<b>June 13</b>
<b>Resource adequacy enhancements track 1</b> <ul style="list-style-type: none"> <li>Phase 1 – Scenario 1,2</li> <li>Phase 2 – Scenario 3,4,5</li> <li>OMS Prevention of Extension; Overlapping Outages; Prevention of Curtailment Increase; Ambient Outages</li> </ul>		<ul style="list-style-type: none"> <li><b>Phase 1 – 5/19</b></li> <li><b>Phase 2 – 6/16</b></li> <li>OMS Changes - 6/28</li> </ul>		<ul style="list-style-type: none"> <li><b>Phase 1 - 5/20</b></li> <li><b>Phase 2 – 6/17</b></li> <li>OMS Changes - 6/28</li> </ul>	<ul style="list-style-type: none"> <li><b>Phase 1 - June 03</b></li> <li>Phase 2- June 30</li> <li>OMS Changes - July 12</li> </ul>
<b>Summer 2021 readiness</b> Phase 1 – Scenario 6,7 Phase 2 – Scenario 1,2,5 Phase 3 – Scenario 3,4		<b>Phase 1 – 5/20</b> <b>Phase 2 – 5/27</b> Phase 3 – 6/14		<b>Phase 1 – 5/20 &amp; 5/25</b> <b>Phase 2 – 6/3 &amp; 6/4</b> Phase 3 – 6/15 & 6/17	Phase 1&2 – June 15 Phase 3 – June 30
<b>Summer 2021 readiness</b> Export, wheeling, and load scheduling priorities		6/30	7/6	TBD	By July 15

Market Simulation Plan: <http://www.caiso.com/Documents/MarketSimulationPlan-Summer2021Release.pdf>

# Scenario Description

- **Resource Adequacy Enhancements - Phase 1**

Scenario #1: "Description Fully covered substitution"

Scenario #2: "Less than full substitution"

- **Resource Adequacy Enhancements - Phase 2**

Scenario #3: "Outages already started cannot be extended" *\*This scenario will be tested as unstructured*

Scenario #4: "Binding Min EOH SOC Requirements"

Scenario #5: "Deactivation of Enforcement of Binding Min EOH SOC Requirements in RTM"

## **OMS Changes**

Scenario #6: Curtailments for active outages cannot be increased beyond the max curtailment MW for a given trading day

Scenario #7: Allowing Overlapping outages for 4 Nature of Work (NOW)

- **Summer Readiness - Phase 1**

Scenario #6 "Flexible Ramping Capacity and Sufficiency Tests."

Scenario #7 "Auto-mirroring for specified mirror resources"

- **Summer Readiness - Phase 2**

**Noon to 5PM : DA+RT** :Scenario #1 "RTM Import & Export Market Incentives during Tight System Conditions":

**Noon to 5PM : RT** Scenario #2 "Release of All Applicable (Contingent & non-Contingent) Operating Reserves at the Bid Cap Price".

**Noon to 5PM : RT** Scenario #5 "RDRR Enable dispatch in RTM"

- **Summer Readiness - Phase 3**

Scenario #3 "Ensure Storage Resources have Sufficient SOC to Support Regulation Up and Regulation Down Awards for at Least 30 Minutes in RTM":

Scenario #4 "Operator Utilization of Traditional ED for Storage Resources"

# Market Simulation Initiatives

- **Timeline : April 26 – June 24**
- **Summer 2021 readiness**
  - **Structured** : Phase 1: May 20 & 25, Phase 2: June 03 & 04 , Phase 3: June 15 & 17
  - Business Requirements Specification -  
<http://www.caiso.com/Documents/BusinessRequirementsSpecificationSummer2021Readiness.pdf>
  - Structured Scenarios document -  
<http://www.caiso.com/Documents/MarketSimulationStructuredScenariosSummerReadiness2021.pdf>

# Market Simulation Initiatives

- **Timeline : April 26 – June 24**
- **Resource adequacy enhancements track 1**
  - **Structured : Phase 1: May 20,** Phase 2: **June 17**
  - Business Requirements Specification -  
<http://www.caiso.com/Documents/Business-Requirements-Specification-Resource-Adequacy-Enhancements-Track-1-Clean.pdf>
  - Structured Scenarios document -  
<http://www.caiso.com/Documents/MarketSimulationResourceAdequacyEnhancementTrack1.pdf>
- **Showing period back to 24 hour for Market Sim from 6/7**
- Production RACS - Activated Monday, 6/7



# OMS Summer Release Timeline

Project	Functionality	Map Stage	Production
RAE Track 1	Denials of CAISO Outages based on Planned Substitutions	05/17/21 ✓	06/03/21 ✓
RAE Track 1	Preventing Extension of Planned CAISO Outage	06/28/21	07/12/21
RAE Track 1	Preventing Curtailment Increase of Planned CAISO Outage	06/28/21	07/12/21
RAE Track 1	Allowing Overlapping Outages for 3 Ambient NOW & RIMS Testing	06/28/21	07/12/21
RAE Track 1	Creation of 'Ambient Due to Temp' & 'Ambient Not Due To Temp' outages in a forced timeframe only	06/28/21	07/12/21
OSI 2021 Enh	Overlapping Pmax NGR <ul style="list-style-type: none"> <li>- BRS 6/1</li> <li>- Procedure documentation will be published as well</li> </ul>	06/28/21	07/12/21

# Known Issues:

Item	Summary	Status
1	FERC 831 :CMRI On vs Off Peak DEBs with different values - 74213	Fixed
2	FERC 831 : SIBR bids being accepted above the appropriate bid cap- 74140	Fixed
3	RAE OASIS: RUC Under Supply Infeasibility and Enforced Constraints Report – Deactivation Timestamp – 74242	TBD
4	RAE CMRI: Effective SOC Limits - API Request does not have Resource - 74810	TBD

# Summer 2021 - System Interface Changes

Summer 2021 Release					
Project	System	API Service Name & Major Version, Artifacts	MAP Stage	Production	Technical Specifications/Publication
Summer Readiness	MF	GeneratorRDT_v5 <a href="#">GRDT spreadsheet Version 15.0 Draft</a>	✓ 5/12/21	6/10/21	✓ v7.0; 4/16/21 ✓ 5/7/21
	MF	IntertieRDT_v1 <a href="#">IRDT (spreadsheet) Version 6.0 Draft</a>	✓ 5/12/21	6/10/21	✓ v7.0; 4/16/21 ✓ 5/7/21
	MF	<a href="#">GRDT &amp; IRDT Definitions v15 Draft</a>	N/A	N/A	✓ 5/7/21
	SIBR	CleanBidSet_v5; 20210401	6/11/21	By 7/15/21	✓ v13.3; 4/19/21
	SIBR	RawBidSet_v5; 20210401	6/11/21	By 7/15/21	✓ v13.3; 4/19/21
	SIBR	BidResults_v5; 20210401	6/11/21	By 7/15/21	✓ v13.3; 4/19/21
	OASIS	ENE_SCH_BY_TIE Energy > Schedule by Tie	✓ 6/9/21	6/14/21	✓ v6.0.0; 4/9/21
RA Enhancements	CMRI	RetrieveStorageOperatingLimit_CMRIv1_AP RetrieveStorageOperatingLimit_CMRIv1_DocAttach_AP  UI > Real-Time > Effective SOC Limits	6/15/21	By 6/30/21	✓ v4.1.0; 4/16/21
	OASIS	ENE_UND_SPLY_INF_EC Energy > Under Supply Infeasibility and Enforced Constraints	6/15/21	By 6/30/21	✓ v6.1.0; 4/16/21
	CIRA	Application Changes	✓ 5/5/21	6/3/21	N/A
	OMS	Application Changes (Denials in webOMS based on planned substitutions)	✓ API 5/17/21 ✓ UI 5/19/21	6/3/21	N/A
	OMS	Application Changes (Preventing extension; overlapping outages)	6/28/21	7/12/21	N/A
	OMS	Application Changes (preventing curtailment increase; creation of ambient outages)	6/28/21	7/12/21	N/A
FERC831	OASIS	PRC_HRLY_ENE_SHAPING_FCTR Pricing > Hourly Energy (Price) Shaping Factor	✓ 5/21/21	6/15/21	✓ v6.0.0; 4/9/21
	OASIS	ATL_CNSTR_RLXN_THRESHOLD Atlas Reference > Constraint Relaxation Threshold	✓ 5/21/21	6/15/21	✓ v6.0.0; 4/9/21
	SIBR	DA/RT Ceiling (Enhancement) Currently available in UI > "Energy bid ceiling" API for Retrieve DA/RT Ceiling (Enhancement) • RetrieveEnergyBidData_SIBRv1 • RetrieveEnergyBidData_SIBRv1_DocAttach	✓ UI API - TBD	UI 6/15/21 API - TBD (after activation)	6/21/21
DR LPA	MRI-S	DR Meter Monitoring Data Submission for BASE, CBL, including % Residential	TBD	TBD	✓ 6/7/21
OSI 2021 Enh.	OMS	Overlapping Pmax NGR	6/28/21	7/12/21	N/A

# Next Steps

- The next teleconference is scheduled on June 17 at 2 PM

# 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:** [MarketSim@caiso.com](mailto:MarketSim@caiso.com)

# Spring 2021 Release Communication Plan

- **Schedule**

<i><b>Monday</b></i>	<i><b>Thursday</b></i>
April 26	April 22, 29
May 3,10,17,24	May 6,13,20,27

- **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:
  - 1-844-517-1271 (Toll Free)
  - 1-682-268-6591
- Access Code: 962 067 710

# Market Simulation Issue Management

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



# Summer 2021 Release MAP Stage Connectivity Testing

- **Timeline** : April 26 – May 10

# Structured Scenario Registration Details

MP's will need to register their request with the ISO to participate in this simulation via the [MarketSim@caiso.com](mailto:MarketSim@caiso.com) mailbox.

Date of registration

FERC 831 & Summer 2021 readiness – May 6<sup>th</sup>, 2021

We will do our best to accommodate for late registration

# Summer 2021 Release - Market Simulation Overview

Wk	Date	ISO	Market Participants
1	4/26-5/10	Mkt Sim Readiness Testing	Connectivity
2	5/10-5/28		Structured Scenarios
3	5/10-5/28		Unstructured Simulation

Calendar Day	Day	CMRI T+1B	Submit Meter Data by T+2B 10:00 AM for Initial	Publish Initial Statement T+5B	Submit Meter Data by T+5B 18:00 for Recalc	Publish Recalc Statement T+8B	Publish Market Invoice
24-May-21	Monday		20-May				
25-May-21	Tuesday			18-May	18-May	13-May	
26-May-21	Wednesday	25-May				Monthly Recalc 11-May -13-May	Daily Recalc 11-May; 13-May Monthly Recalc 11-May - 13-May
27-May-21	Thursday	26-May	25-May	20-May	20-May		
28-May-21	Friday	27-May	26-May	Monthly Initial 18-May -20-May		18-May	Daily Initial 18-May; 20-May Monthly Initial 18-May - 20-May

Settlements TDs Tue/Thu

Maintenance Friday

[Market Simulation Plan](#)

[Market Simulation Settlements Calendar](#)



# Market Simulation Initiatives

- **Timeline : April 26 – June 07**
- **FERC order 831**
  - **Structured : Trading Date May 25, 26, 27 ( Buffer dates June 3, 4 )**
  - Structured Scenarios document -  
<http://www.caiso.com/Documents/MarketSimulationStructuredScenarios-FERCOrder831.pdf>
  - Business Requirements Specification -  
<http://www.caiso.com/Documents/BusinessRequirementsSpecificationFERC831ImportBiddingMarketParameters.pdf>
- FERC Order 831 - Market Simulation Scenarios [Customer Training](#) on 5/18. Refer to the [ISO Learning Center](#) for the presentation and video.