

Market Simulation Forum July 17, 2025

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Overview

- Presentation Summary of Changes
- Market Simulation Overview
- Market Simulation MAP Stage Availability
- Market Simulation MAP Stage Code
- Market Simulation Activities
- Market Simulation Settlements (if needed)
- Market Simulation Initiatives Current
 - FERC881 Track 2
 - Transmission Exchange Agreement (TEA)
- Market Simulation Initiatives Upcoming
 - Subscriber Participation Transmission Ownership Model (Subscriber PTO)
 - EDAM/DAME/Western EIM/BAA/ISO



Summary Of Changes

- Slide 13: Added new slide with FERC881 TR MSIM dates
- Slide 16: Updated EDAM MSIM dates for PG&E



Market Simulation Overview

- Covers activities in the MAP Stage environment
- MAP Stage is an integrated Production-like environment that is available to customers with provisioned access
- Allows customers to experience ISO release/project implementations prior to Production implementation
- Market Simulation will allow customers and the CAISO to conduct specific market scenarios in a test environment prior to the Production activation to ensure that all system interfaces are functioning as expected and to produce simulated market results
- Customers may also use MAP Stage to validate the interaction of customer-driven changes with the ISO systems



Reasons for Market Simulation

- **Rule impacts**: Generalized changes in market rules, bidding rules, settlements rules, market design changes, or other business rules.
- Interface changes: Changes that impact templates (RA Supply Plan, Master File RDT, etc.), User Interfaces (UI), Application Programming Interface (API) / Web Service.
- New/modified application/report: Changes that cause addition/modification of ISO systems or reports, especially when data input is required by the customer
- New/modified system process: Modification of data flow in systems, especially if the new/modified process requires the customer to demonstrate proficiency prior to Production
- **New/modified model data**: Addition or substantial modification of model data as a market solution or export provided by the ISO
- New/modified user role: The addition or modification of access permissions for a user role



Market Simulation for ISO Implementation of Releases & Projects - Deliverables





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Market Simulation Forums

Scheduled for 2-3PM PT

	Monday	Tuesday	Wednesday	Thursday	Friday
June	2	3	4	5	6
	9	10	11	12	13
	16	17	18	19	20
	23	24	25	26	27
	30				
July		1	2	3	4
	7	8	9	10	11
	14	15	16	17	18
	21	22	23	24	25
	28	29	30	31	

Market Simulation Forum



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Market Simulation MAP Stage Availability MAP Stage weekly maintenance window is Friday*

System	UI	API	Comments
ADS			
ALFS	Not Available		
BAAOP			
BSAP			
CIRA			
CMRI			
CRR (old)		Not Available	
CRR (new)			
DRRS			
ECIC	Not Available		
FDR	Not Available		
MF			
OASIS			
OMS			
PLC		Not Available	
RCBSAP			
RIMS		Not Available	
SIBR			
MRIS			
TR		Not Available	
webWheel		Not Available	
webLineR	12/31/24	From 4/14	
AVAILABLE			
MAINTENANCE	*Maintenance may also occur after 160	00 PT on other days and may deviate from the wee	kly maintenance window as necessary

California ISO

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Market Simulation MAP Stage Code

System	MAP-STAGE	PRODUCTION	Comments
Market	Release 23	Release 23	
FNM	DB134	DB134 from 4/14	
ADS			
ALFS			
BAAOP			
BSAP			
CIRA			
CMRI		From 4/9	
DRRS			
ECIC			
FDR			
MF			
OASIS		From 4/1	
RCBSAP			
SIBR			
TR			

AHEAD OF PRODUCTION
SYNCED WITH PRODUCTION
BEHIND PRODUCTION



Market Simulation Activities

Initiative	Market Simulation	Comments	Activation
FERC881 Track 2	Connectivity Testing: • UI: 12/31/24 – 04/14/25 • API: 04/14/25 – 06/30/25 Market Simulation: • Unstructured: 04/14/25 – 06/30/25	N/A	Track 2: 07/11/25
Transmission Exchange Agreement (TEA)	Unstructured MSIM (WAPA): 3/17/25 – 4/4/25 (new Aggregate Tie) Unstructured MSIM (WAPA, TEA BRS): Jan. 2026	N/A	Aggregate Tie: 05/01/25 Full Activation: March 2026
DAME / EDAM / Western EIM	See project slide 19.	BPM posting 7/1/25	See project slide 19.
Subscriber PTO	See project slide 21.	Training: Jun - Sept	10/01/25



Map-Stage Environment Issues

Initiative	Defects
Congestion Revenue Rights (CRR) System Upgrade	N/A
FERC881 Track 2	N/A
Hybrid Resources Phase 2C (HR2C) - RIMS	N/A
Transmission Exchange Agreement (TEA)	N/A
DAME / EDAM / WEIM	N/A
Other projects and issues	N/A



FERC Order 881 Track 2 – Market Simulation Timeline

Connectivity Testing (webLineR Only):

- Provisioning & UI: 12/31/24 04/14/25
- API: 04/14/25 06/30/25

Market Simulation (webLineR Only):

- Unstructured (UI Only): 12/31/24 04/14/25
- Unstructured (UI & API): 04/14/25 06/30/25

Activation (webLineR Only):

- Go-live: 07/11/25
- webLineR MAPSTAGE shall remain accessible to participants after activation.

Note: refer to <u>webLineR MAPSTAGE</u> to test connectivity. If did not attend the training and would like a copy, please email <u>CustomerTraining@caiso.com</u> for training material. Note: Extension being provided for Track 3 does not impact Track 1 and Track 2 FNM and/or ICCP functionality.

			Dec 1, 2024	Jan 1, 2025	Feb 1, 2025	Mar 1, 2025	Apr 1, 2025	May 1, 2025	Jun 1, 2025	
TASK	START	END								
Connectivity Testing	g									
Provisioning & UI	12/31/24	3/14/25								
API	3/15/25	6/30/25								
Unstructured Marke	et Simulation					_				
User Interface Only	12/31/24	3/14/25								
UI & API	3/15/25	6/30/25							11	
Activation										
Go Live	7/12/25	7/12/25								



FERC Order 881 Track 2 – Market Simulation Timeline

Market Simulation (Transmission Registry):

• Unstructured: 7/14/25 – 7/25/25

Should questions or issues arise with Transmission Registry Market Simulation testing, please email <u>gridassets@caiso.com</u> directly and CC <u>MarketSim@caiso.com</u>



FERC881 Track 2 – webLineR Question

The API URL is <u>https://mapstage-api.caiso.com/transews/webliner/</u> and is reflected on the ISO Developer site. As this is not a webpage participants will need to use a tool like SOAPUI or Postman to submit API requests and provide the method utilized. For example:

Method	Endpoint	Resource	
POST	https://mapstage-api.caiso.com/transews/webliner	 /facilities-ratings/v1.5/queryFacilities 	
APL	Jrl which is		Method being used
	dard across		required. This

Note: webLineR UI, <u>https://mapstage-webliner.caiso.com</u> is a webpage and can be accessed via a valid certificate.



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Transmission Exchange Agreement (TEA)

- Register by December 31, 2024
- MF, SIBR, ETCC, ITS, Settlements, CMRI, OASIS
- Unstructured MSIM (WAPA Only): 03/17/25 04/4/25
- Full Scope Unstructured MSIM (WAPA Only, TEA BRS): Jan. 2026
- First Activation: Week of 05/1/25 (new Aggregate Tie)
- Full Activation: March 2026

Note: Refer to <u>TEA External BRS</u> for overview of functionality for October Activation.

			Feb 17, 2025	Feb 24, 2025	Mar 3, 2025	Mar 10, 2025	Mar 17, 2025	Mar 24, 2025
TASK	START	END	H T V T F S S	H T V T F S S	H T V T F S S	H T V T F S S	H T V T F S S	H T V T F S S
Unstructured Ma	arket Simulati	on		Logical Contraction of the second	Provide and the second second second second			
WAPA Only	2/24/25	3/14/25						
Activation								
Go-Live	3/24/25	3/24/25						



DAME / EDAM / WEIM – Market Simulation Timeline

Initiative	Connectivity Testing	Integration Testing	Structured Market Sim	Unstructured Market Sim	Parallel Operations	Activation
Day-Ahead Market Enhancements	06/01/25 – 09/01/25	06/01/25 – 09/01/25	09/01/25 – 12/01/25	12/01/25 – 01/15/26	01/26/26 – 03/26/26 (EDAM OB)	05/01/26
Extended Day-Ahead Market	06/01/25 – 09/01/25	06/01/25 – 09/01/25	09/01/25 – 12/01/25	12/01/25 – 01/15/26	01/26/26 – 03/26/26 (EDAM OB)	05/01/26
EDAM ISO BAA Participation Rules Track A	06/01/25 – 09/01/25	06/01/25 – 09/01/25	09/01/25 – 12/01/25	12/01/25 – 01/15/26	01/26/26 – 03/26/26 (EDAM OB)	05/01/26
Extended Day-Ahead Market On-Boarding - Pacificorp	05/01/25 – 05/31/25	06/01/25 – 09/01/25	09/01/25 – 12/01/25	12/01/25 – 01/15/26	01/26/26 – 03/26/26	05/01/26
Extended Day-Ahead Market - PGE	11/01/25 – 11/30/25	12/01/25 – 03/01/26	<mark>03/01/26</mark> – 04/30/26	05/01/26 – 06/12/26	06/01/26 – 09/15/26	10/01/26
<u>WEIM - Berkshire</u> <u>Hathaway Energy</u> <u>Montana</u>	09/01/25 – 10/17/25	10/01/26 – 11/30/26	12/01/25 – 02/13/26	NA	02/16/26 – 04/17/26	05/06/26
WEIM – Black Hills	09/01/25 – 10/17/25	10/01/26 – 11/30/26	12/01/25 – 02/13/26	NA	02/16/26 – 04/17/26	05/06/26

Note: <u>Spring 2026 Release Market Sim Plan</u> posted on Release Planning page. Developer related documentation available for <u>CMRI</u> and <u>OASIS</u> for DAME and EDAM. <u>EDAM Market Simulation Scenarios v1.1</u> and <u>From/To</u> document. California ISO

DAME / EDAM / WEIM – Market Simulation Timeline



Subscriber Participating Transmission Ownership Model (Subscriber PTO)

Connectivity/Integration Testing:

- 08/11/25 08/15/25 (Phase 1)
- TBD Phase 2

Unstructured Market Simulation:

- 08/18/25 08/29/25 (Phase 1)
- 01/05/26 01/16/26 (Phase 2)

Activation:

- 10/01/25 (Phase 1)
- 02/01/26 (Phase 2)

Note: Refer to Subscriber PTO BRS for overview of functionality. Phase 1 to include all functionality except for Settlements and CMRI, Phase 2 includes Settlements and CMRI only.



Next Steps

- Work with your UAA to provision your organization's access to MAP Stage for access to the systems to execute Market Simulation
- Review BRS Market Simulation requirements, Market Simulation
 Plans, Market Simulation Scenarios and provide any feedback
- Register for participation in Market Simulation
- Attend the Release User Group Forums, every other week, for implementation updates, including active and upcoming Market Simulation activities
- During active Market Simulations, attend the weekly Market Simulation Forums



Market Simulation Registration

- Please register for your participation in Market Simulation activities for each Market Simulation initiative as appropriate
 - If you have intent to actively engage in MAP Stage testing of access, systems, functionality, processes, and/or review of results/data
- This informs CAISO Market Simulation to provide more specific support for your efforts, including
 - Data setup for your testing
 - More immediate communication and coordination impacting your testing/review
 - More detailed information for the applicable initiatives
- How to register
 - Submit CIDI with 'Functional Environment' = "Market Simulation"
 - Identify the Market Simulation initiative(s) you will participate in
 - Identify any specific resources as applicable
 - List the contacts and e-mail addresses that you would like to include
 - CIDI is preferred and if you don't have CIDI, you can e-mail <u>marketsim@caiso.com</u> with the same information



Upcoming Meetings

- Market Simulation Forum:
 - Tuesday, July 24, 2025 @ 2:00 PM PT
- Release User Group (RUG):
 - Tuesday, June 24, 2025 @ 10:00 AM PT
- CRR Customer Partnership Group (CPG):
 - Thursday, June 19, 2025 @ 10:00 AM PT
- Technical User Group (TUG):
 - Tuesday, July 29, 2025 @ 10:00AM PT
- DAME, EDAM, EDAM CAISO BAA PR:
 - Thursdays 1PM PT (registered participants only)



Market Simulation Support

- Email general questions to <u>marketsim@caiso.com</u>
- Submit market simulation specific issues and questions in CIDI with subject: "Project Name: System Name – Issue Title" with Functional Environment set to Market Simulation.
 - If not related to a Project submit subject as "NA: System Name – Issue Title"
- Service Desk: (916) 351-2309

