

Market Simulation Forum July 24, 2025

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Market Simulation Coordinator

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 8: Updated upcoming maintenance windows
- Slide 14: Updated TR MSIM dates for FERC881



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

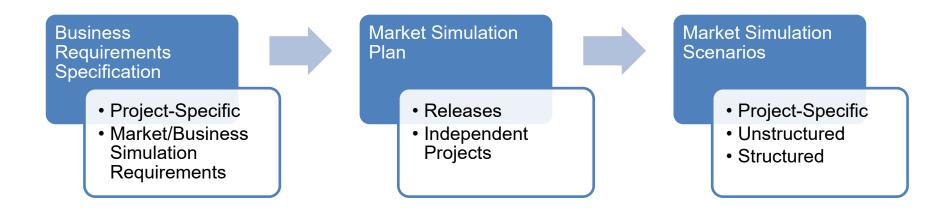


Reasons for Market Simulation

- 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





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

ISO Closure

Cancelled



Market Simulation MAP Stage Availability

• MAP Stage weekly maintenance window is Friday*

System	UI	API	Comments
ADS			
ALFS	Not Available		
ВААОР			
BSAP			
CIRA			
CMRI			
CRR (old)		Not Available	
CRR (new)			
DRRS			
ECIC	Not Available		
FDR	Not Available		
MF			
OASIS			Maintenance 7/25 – 7/28
OMS			Maintenance 7/29 – 8/8
PLC		Not Available	
RCBSAP			
RIMS		Not Available	
SIBR			
MRIS			
TR		Not Available	
webWheel		Not Available	
webLineR	12/31/24	From 4/14	
AVAILABLE			

*Maintenance may also occur after 1600 PT on other days and may deviate from the weekly maintenance window as necessary



MAINTENANCE

ISO PUBLIC

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: 07/7/25
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.	BPM posting 7/1/25	See project slide 19.
Subscriber PTO	See project slide.	Training: Jun - Sept	10/01/25



Map-Stage Environment Issues

Initiative	Defects
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

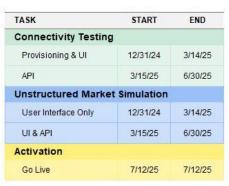
Unstructured (UI & API): 04/14/25 – 06/30/25

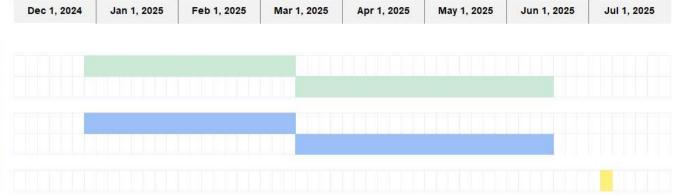
Activation (webLineR Only):

Go-live: 07/7/25

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.

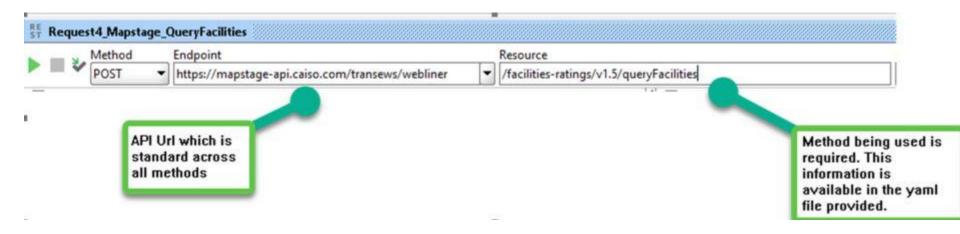






FERC881 Track 2 – webLineR Question

The API URL is https://mapstage-api.caiso.com/transews/webliner/ 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:



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



FERC Order 881 Track 3 – Market Simulation Timeline

Market Simulation (Transmission Registry):

Unstructured: 07/14/24 - 08/01/25

Note: Should questions or issues arise with Transmission Registry Market Simulation testing, please email gridassets@caiso.com directly and CC MarketSim@caiso.com

Market Simulation (Market):

Unstructured: TBD

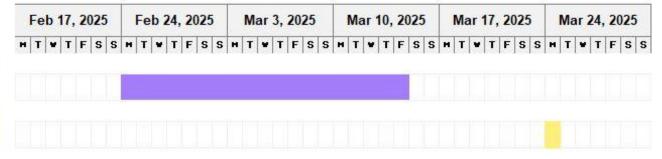


Transmission Exchange Agreement (TEA)

- 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.

TASK	START	END
Unstructured Ma	rket Simulati	ion
WAPA Only	2/24/25	3/14/25
Activation		
Go-Live	3/24/25	3/24/25





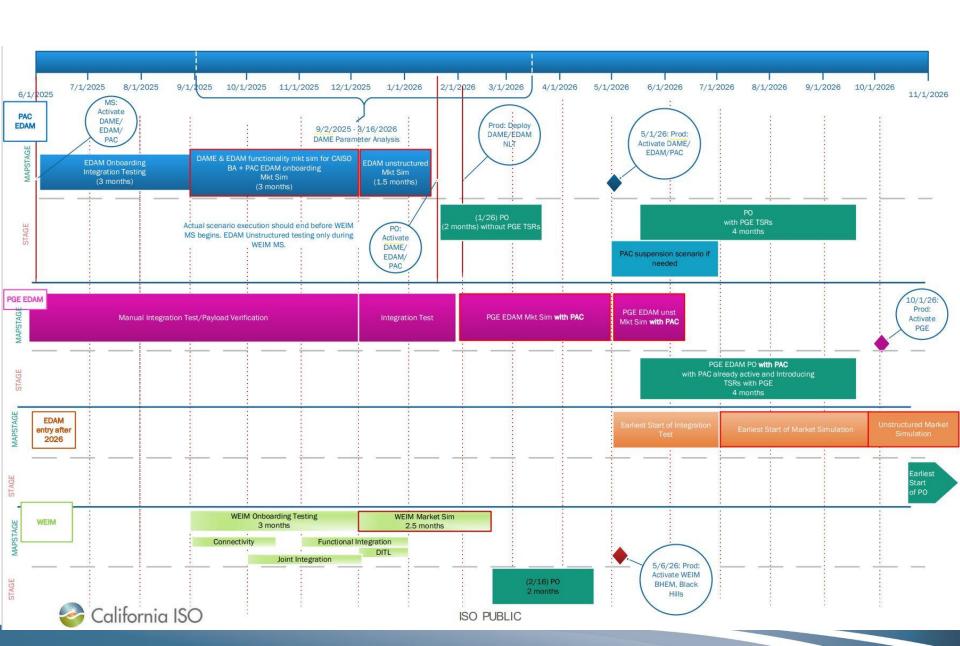
DAME / EDAM / WEIM – Timeline

Initiative	Connectivity Testing	Integration Testing*	Structured Market Sim	Unstructured Market Sim	Parallel Operations	Activation
Day-Ahead Market Enhancements	06/02/25 – 09/01/25	06/02/25 – 09/01/25	09/02/25 – 12/01/25	12/01/25 – 01/15/26	02/02/26 – 03/26/26 (EDAM OB)	05/01/26
Extended Day-Ahead Market	06/02/25 – 09/01/25	06/02/25 – 09/01/25	09/02/25 – 12/01/25	12/01/25 – 01/15/26	02/02/26 – 03/26/26 (EDAM OB)	05/01/26
EDAM ISO BAA Participation Rules Track A	06/02/25 – 09/01/25	06/02/25 – 09/01/25	09/02/25 – 12/01/25	12/01/25 – 01/15/26	02/02/26 – 03/26/26 (EDAM OB)	05/01/26
Extended Day-Ahead Market On-Boarding - Pacificorp	05/01/25 – 05/31/25	06/02/25 – 09/01/25	09/02/25 – 12/01/25	12/01/25 – 01/15/26	02/02/26 – 03/26/26	05/01/26
Extended Day-Ahead Market - PGE	11/01/25 – 11/30/25	12/01/25 – 03/01/26	03/01/26 – 04/30/26	05/01/26 – 06/12/26	06/01/26 – 09/15/26	10/01/26
WEIM - Berkshire Hathaway Energy Montana	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: Formal Integration Period provided to Onboarding entities. For purposes of Market Simulation entities to perform Integration Testing to ensure provisioned application access.



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. Please note that Phase 2 dates are being reassessed to better accommodate a longer Market Simulation window.



Bid Cost Recovery (Placeholder)



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 31, 2025 @ 2:00 PM PT
- Release User Group (RUG):
 - Tuesday, Aug 5, 2025 @ 10:00 AM PT
- <u>Technical User Group (TUG):</u>
 - 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

