EDAM Enhancements 2026

Multiple GHG

November 12, 2026

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Agenda

- Project Implementation Timeline
- Market Simulation Overview
  - Testing Overview
  - Scenario Review
  - Outstanding Items

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Project Implementation Timeline

- Market Simulation duration 11/12/26 - 12/10/26
  - Note: MSIM Testing in MAPSTAGE environment only
- Deployment: 12/16/26
- Activation: 1/1/27

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Market Simulation Meeting Series

- Meeting Series
  - Monday 9AM: 11/16, 11/30, 12/7
  - Wednesday 9AM: 11/18, 12/2

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Multiple GHG Overview

- California and Washington put a price on carbon and have their own Green House Gas regulation area. When a power plant serves customers inside of each regulation area the carbon “toll” applies.
- A power plant residing outside of the regulation zone that sells into that zone would now submit an energy bid which is the price for the electricity as well as a greenhouse gas bid which is the extra price it wants for taking on that zone’s carbon cost.
- The scenario outlined tests that a Western EIM BAA and/or EDAM BAA have their resources attributed to a regulation zone and have their resources attributed to more than one zone, with some going to California and some to Washington.
- Although the scenario covers real-time only, EDAM BAAs should submit Day-Ahead bids as these serve as the starting point for real-time bids being measured against.

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GHG Mapping vs Attribution

- Mapping refers to a resource being treated as if it sits inside of a regulation zone.
  - Some utilities are mapped to California or Washington by default.
  - A resource outside both states can ask to be mapped to one zone through a customer request ticket. To quality, it must be contractually obligated to fully serve that zone's load.
  - A resource cannot be mapped to both zones as a resource cannot be fully committed to serving both regulation zones at the same time.

- Attribution is what the scenario is testing as resources bid to be deemed delivered into a zone that are not inside.
  - GHG area mapping is for a resource fully serving the GHG load; however, partial load serving is also supported, submit the data on GHG_CONTRACT tab in GRDT
  - Plants in CA bid for WA as they cannot bid for a zone they are already in.
  - Plants in WA bids for CA, for the same reason.
  - Plants outside both can bid for both regulation areas

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GHG Modeling Enhancement Phases

Two phases expand GHG market capability and refine geographic modeling, supported by coordinated development, training and market simulation.

PHASE 1 — Expand Market Capability

Effective January 1, 2027

- Support multiple GHG regulation areas
- Allow resources to bid into either or both areas
- Calculate a separate marginal GHG cost for each area

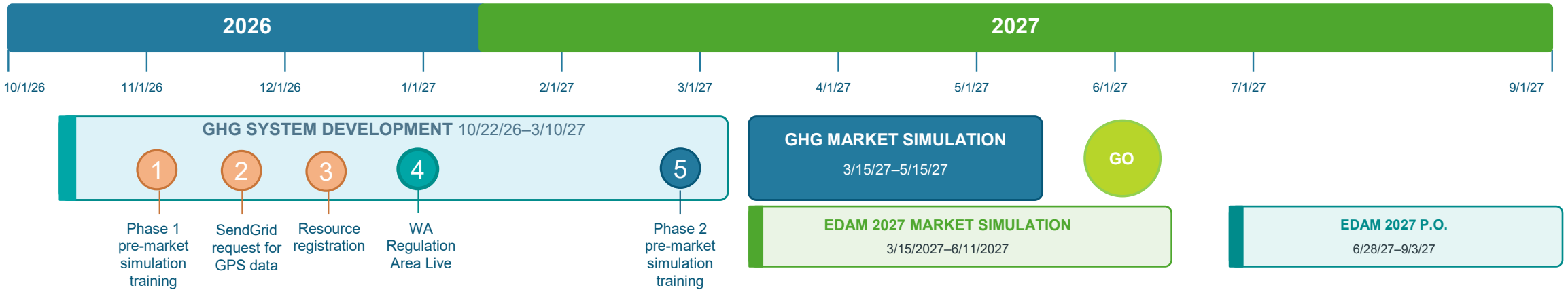
PHASE 2 — Refine Geographic Modeling

Effective June 1, 2027

- Enhance modeling for multi-state BAAs to align GHG assets with state boundaries
- Improve precision for multi-state Balancing Areas

GHG IMPLEMENTATION AND READINESS TIMELINE

Development, preparation, market simulation and go-live activities



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Enhancements planned for January 1, 2027

	Impacted entities	What to expect
WA GHG area definition	BAAs fully within the WA State boundary.	• Supply, load, and network branches in the State of Washington will be mapped to the WA GHG area. • Pricing nodes mapped to the WA GHG area will reflect a marginal cost of GHG in LMPs.
	Multi-state BAAs overlapping with WA State.	ISO will coordinate with multi-state BAs on GHG mapping.
GHG Bidding for multiple GHG areas	Market participating resources not associated with the WA or CA GHG areas.	• Resources can submit GHG bids for both WA and CA GHG areas separately. • The market will do GHG attribution for WA and CA GHG areas and print two separate GHG prices.
	CA GHG area resources.	Resources can submit GHG bids for the WA GHG area.

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Upstream Testing vs Full End-to-End

- Market Participants may test upstream SIBR submissions, SIBR results via SIBR report, and validate Market Results in CMRI for all Trade Dates submitted throughout the span of Market Simulation.

- Full End-to-End testing is being accommodated with formal Settlements Statements for the following Tuesday and Thursday Trade Dates: 11/17, 11/19, 12/1, 12/3
  - No Settlements Statements posted Thanksgiving week

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What Market Simulation Success Looks Like

- Bids are accepted and the bidding system (SIBR) validates the separate GHG bids for each zone.
- CMRI Report shows the attribution results for market participant validation before formal Settlements Statement come in a week later
- Formal Settlements Statement is posted a week after initial SIBR submission and market participants validate attributed plants are getting paid for relevant charge codes.

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Market Simulation Scenarios

Scenario Number	Structured scenario	
2A	Name	**GHG allocation in RTM across multiple GHG regulation areas in MAPSTAGE environment (upstream only)** Note: Market Participants can complete upstream submissions for any Trade Date and review results in SIBR and CMRI.
	Market	RTM
	Description	• Demonstrate that an Extended Day Ahead Market (EDAM) entity and/or a Western Energy Market (WEIM) entity can each receive Green House Gas (GHG) allocation from one GHG regulation areas in the Real-Time Market (RTM). • Demonstrate that an Extended Day Ahead Market (EDAM) entity and/or a Western Energy Market (WEIM) entity can each receive Green House Gas (GHG) allocation from more than one GHG regulation areas in the Real-Time Market (RTM).
	Market Operator Actions	• Ensure market conditions such that the relevant EDAM and/or WEIM BAA can export/import and receive GHG attribution
	EDAM/WEIM Market Participant Actions	• Utilize SIBR to submit cheap energy bids and separate GHG bids for each GHG regulation area for exports to more than one area. • Bid GHG at or above zero and ensure the energy bid range is equal to or greater than the GHG bid megawatt (MW) quantity • EDAM and WEIM entities to provide Load Meter Data based on Load Aggregation Point resource identifiers to the ISO Market Services team consistent with the Settlements Quality Meter Data (SQMD) plan. Note: Recommendation is to submit bids for CA and WA for all relevant resources wherever possible. • If in CA BAA then submit for WA • If in WA BAA then submit for CA

Scenario Number	Structured scenario	
		• If outside CA and WA then submit for both EDAM BAAs are expected to submit DA related bids to provide reference for RTM bids.
	Expected Outcome	The EDAM and WEIM entities to each receive GHG allocation from one and more than one GHG regulation area SIBR UI/API: validate submissions CMRI: • FMM and RTD Schedules Report for RTM GHG Allocations • EIM Green House Gas Attributions • EDAM Green House Gas Attribution • Hourly CLAP Load percentage share OASIS: • Total Net GHG Import Transfer Market Participant Portal (MPP) • All WEIM BAA load distribution factors published and viewable to WEIM entities • All EDAM BAA load distribution factors are published and viewable to EDAM entities, and each BAA's LDFs may be viewable by other BAAs

Market Simulation Scenarios

6.3.3 Group **EDAM MSS – 002B Multiple GHG**

Scenario Number	Structured scenario	
2B	Name	**GHG allocation in RTM across multiple GHG regulation areas in MAPSTAGE environment (full scenario)** Note: Market Participants can focus submissions for full end-to-end validation for the following Trade Dates: 11/17, 11/19, 12/1, 12/3.
	Market	RTM
	Description	• Demonstrate that an Extended Day Ahead Market (EDAM) entity and/or a Western Energy Market (WEIM) entity can each receive Green House Gas (GHG) allocation from one GHG regulation areas in the Real-Time Market (RTM). • Demonstrate that an Extended Day Ahead Market (EDAM) entity and/or a Western Energy Market (WEIM) entity can each receive Green House Gas (GHG) allocation from more than one GHG regulation areas in the Real-Time Market (RTM).
	Market Operator Actions	• Ensure market conditions such that the relevant EDAM and/or WEIM BAA can export/import and receive GHG attribution
	EDAM/WEIM Market Participant Actions	• Utilize SIBR to submit cheap energy bids and separate GHG bids for each GHG regulation area for exports to more than one area. • Bid GHG at or above zero and ensure the energy bid range is equal to or greater than the GHG bid megawatt (MW) quantity • EDAM and WEIM entities to provide Load Meter Data based on Load Aggregation Point resource identifiers to the ISO Market Services team consistent with the Settlements Quality Meter Data (SQMD) plan. Note: Recommendation is to submit bids for CA and WA for all relevant resources wherever possible. • If in CA BAA then submit for WA • If in WA BAA then submit for CA • If outside CA and WA then submit for both EDAM BAAs are expected to submit DA related bids to provide reference for RTM bids.
	Expected Outcome	The EDAM and WEIM entities to each receive GHG allocation from one and more than one GHG regulation area SIBR UI/API: validate submissions CMRI: • FMM and RTD Schedules Report for RTM GHG Allocations • EIM Green House Gas Attributions • EDAM Green House Gas Attribution • Hourly CLAP Load percentage share OASIS: • Total Net GHG Import Transfer Market Participant Portal (MPP) • All WEIM BAA load distribution factors published and viewable to WEIM entities • All EDAM BAA load distribution factors are published and viewable to EDAM entities, and each BAA's LDFs may be viewable by other BAAs

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CMRI Reports

CMRI Report Name	Status
RTD Schedules EIM RTD Schedules EIM GHG Attributions	CA and WA GHG attributions/Export allocations data is displaying as expected for both UI and API/
FMM Schedules EIM FMM Schedules EIM GHG Attributions	CA and WA GHG attributions/Export allocations data is displaying as expected for both UI and API/
DA Generation Market Results EDAM GHG Attributions EDAM DA Generation Market Results	DA CA data available, DA WA to be provided upon WA EDAM joining
RTD Advisory Schedules	Week of 11/16
RTPD Advisory Schedules	Week of 11/16

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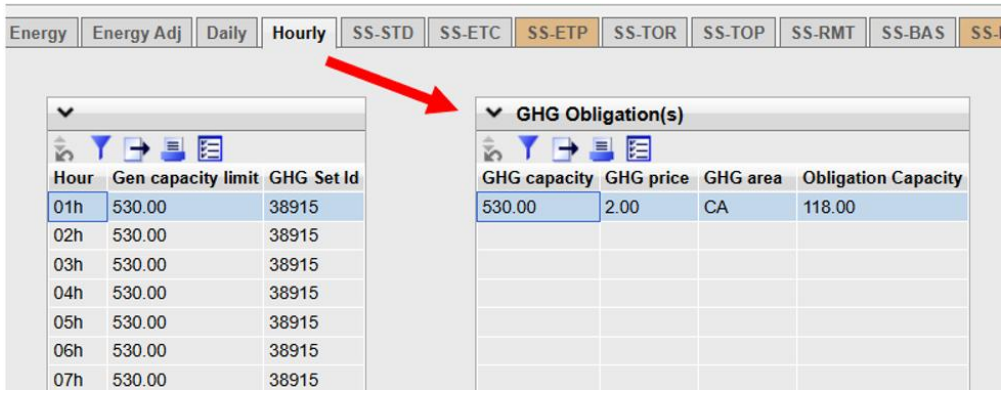
SIBR Items Incoming

- **Issue:** User Interface Bid Copy feature does not carry the GHG SET ID correctly, bids must be edited if copied to input the GHG data for the hours needed.
- **Issue:** For MSG resource in the DAM bid, SIBR Rule 31676 fires if the GHG Obligation exceeds the Upper Economic Limit of the lowest Configuration.
- Fix for both are coming to allow UI Copy as well as observe the Upper Economic Limit of any configuration bid in on the DAM bid.

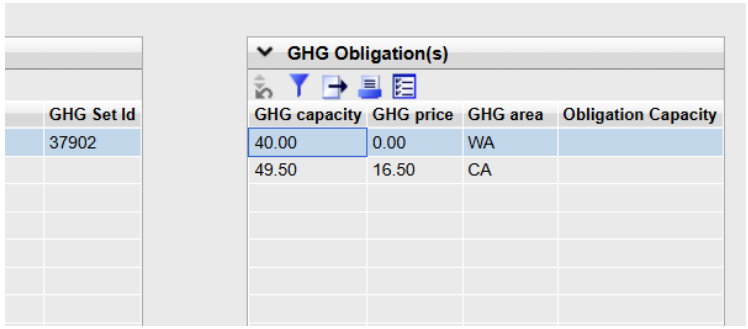
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SIBR Items Incoming

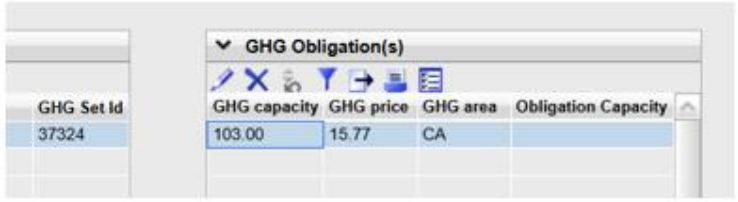
- DAM bid using GHG Obligation (only allowed in DAM, and only for CA now) RTM is the same but do not submit Obligation Capacity.



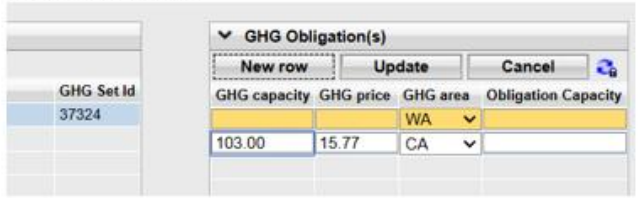
- RTM (no obligation)



Edit: click pencil icon



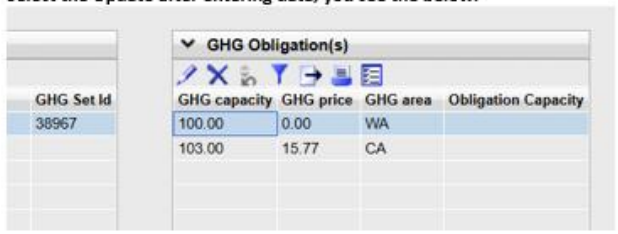
Enter new data for WA



Select New row



Select the Update after entering data, you see the below.



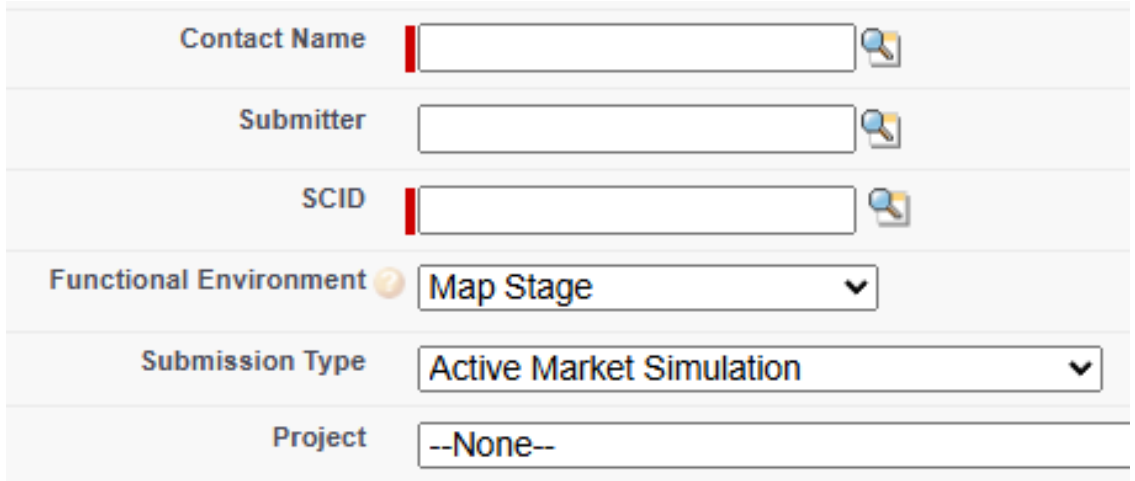
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Known ADS Issue

- RTPDBindingResourceAwards related to CA IEEA product in the Instructions Grid which may introduce some duplications and limited visibility for the WA region
- CAISO team investigating fix for the known issue and will provide a future communication on the resolution

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Market Simulation – CIDI Requests and Reporting



Select the following CIDI fields:

- SCID
- Environment: MAPSTAGE
- Submission Type: Active Market Simulation
- Title: Add HIGH, MED, LOW at beginning of title
- Description

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Reference Links – Training

- Greenhouse gas readiness phase 1 pre-market simulation training (11/2/26)
  - Video - Greenhouse Gas Readiness Phase 1 Pre-Market Simulation Training
  - Presentation - Greenhouse Gas Readiness Phase 1 Pre-Market Simulation Training

- Greenhouse Gas overview training (9/29/26)
  - Video - Greenhouse Gas Enhancements Overview Training - Sep 29, 2026
  - Presentation - Greenhouse Gas Enhancements Overview - Sep 29, 2026
  - Greenhouse Gas Readiness Handbook

- Evergreen training: Greenhouse Gas Coordination - GHG Price Formation
  - Chapter 1
  - Chapter 2
  - Chapter 3
  - Chapter 4

- Greenhouse Gas (GHG) Bidding and Pricing Updates for EDAM Readiness Note

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Reference Links – Documentation

- Business Requirements Specification v1.7 Redline – Extended Day-Ahead Market
- Business Requirements Specification v1.6 – EDAM Enhancements 2026
- Business Practice Manuals (BPMs)
  - BPM for Extended Day-Ahead Market, Section 23: Greenhouse Gas (GHG) Accounting (applicable for both EDAM and WEIM-only entities)
  - BPM for Western Energy Imbalance Market Section 11.3.3 Accounting for Greenhouse Gas Regulation
  - BPM for Market Instruments View GHG Readiness Handbook for applicable sections
  - BPM for the Full Network Model
  - BPM for Settlements and Billing

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