



California ISO

Market Simulation 2024

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Recordings

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Agenda

- Market Simulation Initiatives & Timelines
- Initiatives
 - WEIM resource sufficiency evaluation redesign phase 2
 - Transmission service & market scheduling priorities phase 2 - Monthly
 - Transmission exchange agreement
 - Transmission service & market scheduling priorities phase 2 - Daily
 - ASSOC Flag enhanced Logic – Settlements Release
 - Highest Emergency Rating
 - CIRA Enhancement
- MAP Stage Availability
- Next Steps

Market Simulation Initiatives & Timelines

| <u>Independent 2024 Initiatives</u> | <u>Start Date</u> | <u>Start Date (Trade Date)</u> | <u>End Date</u> | <u>Structured Simulation Start (Trade Date)</u> |
|---|-------------------|------------------------------------|-----------------|---|
| WEIM resource sufficiency evaluation redesign phase 2 | 03/19 | 03/19 | 04/05 | 03/26, 03/28, 04/02 |
| Transmission service & market scheduling priorities phase 2- <i>Monthly</i> | 03/04 | 03/05 | 03/29 | 03/05, 03/07 |
| Transmission exchange agreement | 06/17 | 06/17 | 07/05 | N/A |
| Transmission service & market scheduling priorities phase 2 – <i>Daily</i> | 04/08 | 04/09 | 05/03 | 04/09 , 04/11 |
| ASSOC Flag enhanced Logic – Settlements Release | 04/08 | N/A | N/A | N/A |
| Highest Emergency Rating | TBD | TBD | TBD | TBD |
| CIRA Enhancement | TBD | TBD | TBD | TBD |

WEIM Resource Sufficiency Evaluation Redesign Phase 2

- **Timeline:** 03/19 - 04/05
- **Structured:** 03/26, 03/28, 04/02
- **Testing hours:** 3PM - 5PM

Structured Scenarios document -

<https://www.caiso.com/Documents/MarketSimulationStructuredScenarios-ResourceSufficiencyEvaluationEnhancements-Phase2Track2.pdf>

WEIM Resource Sufficiency Evaluation Redesign Phase 2

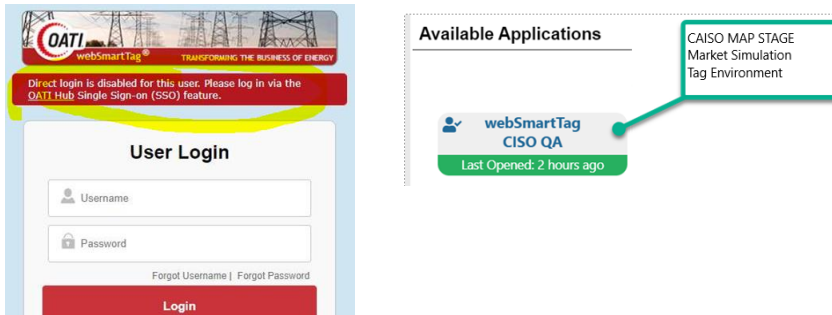
| CAISO Market Environment | MAP TEST Available to ISO Only, not available to ISO Customers | MAP STAGE Market Simulation Available to ISO Customers |
|---|--|--|
| OATI Environment | OATI DEMO | CAISO DEMO CISO QA Please confirm your access to the CAISO DEMO / CISO QA tag environment (via UI or API) for Market Simulation by March 28, 2024. |
| CAISO G-FP Export Tag Structure Validation | CAISO will make Active | Active |
| CAISO DA Auto-Adjustments (1530 & 1730) | Active* *Adjusted to MAP TEST Market; ISO Customers won't be able to verify MAP TEST market results | Active* *Adjusted to MAP STAGE market results, available for IISO customers to verify |
| CAISO RT Auto-Adjustments (T-40) | Active* *Adjusted to MAP TEST Market; ISO Customers won't be able to verify MAP TEST market results | Active *Adjusted to MAP STAGE market results, available for IISO customers to verify |
| OATI HUB | https://www.qa.oatihub.oati.com/Hub/ OATI Public HUB (for Access to ETS/webSmartTag UI; NA for API) | |
| Energy Trading System (ETS) webSmartTag User Interface (UI) | https://demo.tag.oati.com/oati/ets-login.wml * OATI Public Tag Environment UI *User may be required to access from the OATI HUB URL Above | https://demo.caiso.tag.oati.com/oati/ets-login.wml * CAISO Tag Environment UI *User may be required to access from the OATI HUB URL Above |
| Energy Trading System (ETS) webSmartTag Application Programming Interface (API) | https://demo.tag.oati.com/oati/tagging.wml OATI Public Tag Environment API | https://demo.caiso.tag.oati.com/oati/tagging.wml CAISO Tag Environment API |

WEIM Resource Sufficiency Evaluation Redesign

Phase 2

More Information:

- For RSEE2T2 Market Simulation, customers should use the CAISO DEMO/CISO QA environment, which is integrated with the CAISO MAP STAGE (Market Simulation) Market environment
- For those using the CAISO DEMO/CISO QA ETS/webSmartTag UI, the direct URL was <https://demo.caiso.tag.oati.com/oati/ets-login.wml>, but this direct URL may no longer work for your organization, and may require you to access via the new OATI HUB URL: <https://www.qa.oatihub.oati.com/Hub/>
 - If you access the direct URL (<https://demo.caiso.tag.oati.com/oati/ets-login.wml>), you may receive the following error:



- If so, please access the OATI HUB URL (<https://www.qa.oatihub.oati.com/Hub/>), and then click on CISO QA as shown above
- We understand that customers may not have tag templates and configuration set up yet in the CAISO DEMO / CISO QA tag environment for the ISO RSEE2T2 Market Simulation
 - Please continue to set up your tags, tag templates and configurations in the CAISO DEMO / CISO QA tag environment for ISO RSEE2T2 Market Simulation
 - Your organization's OATI PM may be able to assist you in copying over the templates from another tag environment (OATI DEV) to the CAISO DEMO / CISO QA tag environment
- To support customers that are still transitioning to the CAISO DEMO / CISO QA tag environment for the ISO RSEE2T2 Market Simulation
 - The ISO will also enable the RSEE2T2 G-FP Export tag structure validation in the OATI DEMO tag environment for the CAISO MAP TEST Market environment
 - This will allow customers to verify the tag structure validation that requires G-FP Export tags have priority type of "DALPT", "RTLPT", or "RTECON" or else they will be denied upon creation
 - The ISO DA (1530 & 1730) and RT (T-40) auto-adjustments are active in the OATI DEMO tag environment against the CAISO MAP TEST Market environment
 - The CAISO MAP TEST Market environment isn't available to ISO customers, so while you may see tags being auto-adjusted in the OATI DEMO environment, you will not be able to review the corresponding MAP TEST market results
 - Please work to configure your tags in the CAISO DEMO / CISO QA environment to fully participate in the RSEE2T2 Market Simulation in the ISO MAP STAGE environment

Transmission service & market scheduling priorities phase 2 - Monthly

- **Timeline:** 03/04 - 03/29
- **Scenario:** 03/05, 03/07
- **Access:**
 - Please work with your UAA to provision access to webWheel™

Scenario document –

https://www.caiso.com/Documents/MarketSimulationStructure_dScenarios-Transmissionserviceandmarketschedulingpriorities-phase2.pdf

Transmission exchange agreement

- **Timeline: 06/17 - 07/5**
- UI: The current CMRI CRN report is not being changed.
- API: System external CRN Report API shall include the added “CRN Amount” data element to its payload. Add new CRN Amount data element (MW entitlements).
 - RetrieveContractUsage_CMRIv2
 - RetrieveContractUsage_CMRIv2_DocAttach

Transmission service & market scheduling priorities phase 2 - Daily

- **Timeline:** 04/08 - 05/03
- **Scenario:** Trade date 04/09 , 04/11

Scenario document –

<https://www.caiso.com/Documents/MarketSimulationStructure/Scenarios-TransmissionServiceandMarketSchedulingPriorities-phase2.pdf>

ASSOC Flag enhanced Logic – Settlements Release

- Timeline : 04/08
- Presented in SUG Jan 17, Jan 31, Feb 14, 2024
- Upstream systems are making an enhancement to indicate when the (potentially uneconomical) energy schedule of the storage resource in the financially-binding interval might be driven (in part) by binding AS SOC constraints in any advisory interval due to AS obligations. This information is communicated to Settlements for BCR Shortfall evaluation.
- Upstream systems will validate AS Awards driving AS SOC binding condition. Settlement configuration will no longer check whether AS Awards are present in the same interval as AS SOC flags in RTM_NET_AMT_PC so ResourceASSOCConASRevenueAmount rmdhcif will be removed.
- Allow for corrections of AS SOC flags from 1 to 0, or 0 to 1.
- Retro-active corrections from TD 07/01/2023 onwards will require corrected AS SOC flags and Settlement to re-process them
- The “Market Operations” BPM has been updated to reflect this change. Please refer to PRR 1547. Comment period ended 2/13/24 11:59 PM & BPM meeting TODAY, 2/20/24 11AM PT

Highest Emergency Rating

- **Timeline: TBD**

CIRA enhancement

- CIRA UI : Automating Import allocation process (steps 8 thru 13), Currently this is done via manual process (Email)

CIDI tickets

| CIDI's | |
|--|-----------|
| RSEE Phase 2 Track 2 03/14 training questions | Pending |
| AS SOC Retroactive Settlement | Scheduled |
| Hybrid 2 C RIMS | Pending |
| TSMSP Phase 2 - PWT for ATC Request Report in Map Stage OASIS (TD - 03/04) | Pending |

CIDI tickets

| CIDI's | |
|---|---------|
| RSEE - ADS RTECON and RTLPT award display seems inconsistent and incorrect | Pending |
| Structured Testing for RSEE | Pending |
| RSEE tag validation – no auto adjust based on RT market awards | Pending |
| RSEE tag validation – no validation against RT CAISO_PRIORITY_TYPE? | Pending |
| Do not see WEB WHEEL in MAP-STAGE | Pending |
| CMRI Real-Time Export Schedules by Market Priority Types only displaying awards for Interval 3 each hour? | Pending |
| RSEE Tag validation - CAISO approved tag with G-FP with incorrect market priority type | Pending |
| RSEE Tag validation - CAISO approved tag with G-FP but missing market priority type | Pending |
| RSEE Etag validation - DA tag | Pending |

Market Simulation MAP Stage Availability

MAP Stage weekly maintenance window is Friday*

| System | UI | API | Comments |
|--------|----|-----|--|
| ADS | | | |
| ALFS | NA | | |
| BAAOP | | | |
| BSAP | | | |
| CIRA | | | |
| CMRI | | | |
| CRR | | NA | |
| DRRS | | | |
| MF | | | |
| OASIS | | | |
| OMS | | | |
| RCBSAP | | | |
| RIMS | | NA | |
| SIBR | | | ✓ Issues due to MF refresh for 03/19,03/20 |
| MRIS | | | |

AVAILABLE

MAINTENANCE

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

Next Steps

- The next teleconference is schedule for 04/04 at 2 PM.

References

Market Simulation Communication Plan

- **Schedule**

| | |
|---|---|
| <i>Monday</i> Feb 26 March 4, 11, 18, 25 | <i>Thursday</i> Feb 22, 29 March 7, 14, 21, 28 |
|---|---|

- **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**” to be reviewed by ISO SMEs

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

Transmission service & market scheduling priorities phase 1

| Scenario Number | Unstructured scenario | |
|-----------------|---------------------------------|--|
| 1 | Description | Facilitate submission and retrieval of PWT requests and awards. |
| | ISO Actions | <ol style="list-style-type: none"> 1. Define submission windows for monthly PWT requests. 2. Verify PWT requests and prepare PWT awards. 3. ISO will publish market sim wheeling through priority request due date. |
| | WEIM Market Participant Actions | <ol style="list-style-type: none"> 1. Provision certificate access for the new role applicable for webWheel™. 2. Register PWT resource id's in CAISO master file. 3. Verify scheduling coordinators have access to PWTA rule. 4. Register contract related information in PWTA. 5. Submit PWT requests and verify received awards for monthly process. 6. Review PWT ATC awards for monthly process. |
| | ISO Market Participant Actions | <ol style="list-style-type: none"> 1. Provision certificate access for the new role applicable for webWheel™. 2. Register PWT resource id's in CAISO master file. 3. Verify scheduling coordinators have access to PWTA rule. 4. Register contract related information in PWTA. 5. Submit PWT requests and verify received awards for monthly process. 6. Review PWT ATC awards for monthly process. 7. Submit non RA contracts in CIRA 'Historic and new' for LSE's. |
| | Expected Outcome | Participants to verify: <ol style="list-style-type: none"> 1) Contract information in PWTA . 2) PWT request submission. 3) PWT awards review. 4) Review non RA contracts in CIRA: Plan--> NLN Submission . 5) Review results in OASIS. |
| | Anticipated Settlement Outcome | N/A |

WEIM Resource Sufficiency Evaluation Redesign

Phase2

| Scenario Number | Unstructured scenario (RSEE2 Track -2) | |
|-----------------|--|--|
| 1 | Description | Facilitate submission for Auto Approval of Export e-Tags with Product Code and CAISO_PRIORITY_TYPE. |
| | ISO Actions | N/A |
| | WEIM Market Participant Actions | a) After the DA or HASP market results are published , Market Participants should e-tag several export resources as “Firm Provisional Energy (G-FP)” (via the Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as RTECON, RTLPT or DALPT b) Before or after the DA or HASP market results are published Market Participants should e-tag several export resources as product type other than G-FP (via Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as DAPT or RTPT |
| | ISO Market Participant Actions | a) After the DA or HASP market results are published , Market Participants should e-tag several export resources as “Firm Provisional Energy (G-FP)” (via the Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as RTECON, RTLPT or DALPT b) Before or after the DA or HASP market results are published Market Participants should e-tag several export resources as product type other than G-FP (via Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as DAPT or RTPT |
| | Expected Outcome | Market Participants verify CISO approval of G-FP and other export resources e-tags in their own Web Smart Tag system. CAISO Operators will verify ITS for G-FP e-tags. |
| | Anticipated Settlement Outcome | N/A |
| | Expected Settlement Outcome | N/A |

WEIM Resource Sufficiency Evaluation Redesign

Phase 2

| Scenario Number | Unstructured scenario (RSEE2 Track -2) | |
|------------------|---|---|
| 2 | Description | Facilitate submission for Auto Denial of Export E-Tags without final market priority from DA or HASP market runs or with incorrect Product Code and CAISO_PRIORITY_TYPE. |
| | ISO Actions | N/A |
| | WEIM Market Participant Actions | <ul style="list-style-type: none"> a) (new scenario) Before the DA or HASP market results are published, Market Participants should e-tag several export resources as “Firm Provisional Energy (G-FP)” (via the Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as RTECON, RTLPT or DALPT b) After DA or HASP market publishes Market Participants should e-tag several export resources as “Firm Provisional Energy (G-FP)” (via the Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as DAPT, RTPT c) Before or after the DA or HASP market results are published Market Participants should e-tag several export resources as product type other than G-FP (via Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as DALPT, RTLPT or RTECON |
| | ISO Market Participant Actions | <ul style="list-style-type: none"> a) N(new scenario) Before the DA or HASP market results are published, Market Participants should e-tag several export resources as “Firm Provisional Energy (G-FP)” (via the Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as RTECON, RTLPT or DALPT b) After DA or HASP market publishes Market Participants should e-tag several export resources as “Firm Provisional Energy (G-FP)” (via the Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as DAPT, RTPT c) Before or after the DA or HASP market results are published Market Participants should e-tag several export resources as product type other than G-FP (via Market Path product field) and mark “CAISO_PRIORITY_TYPE” in “Misc Info” as DALPT, RTLPT or RTECON |
| Expected Outcome | Market Participants verify e-Tags in their own Web Smart Tag system for denial. CAISO Operators will verify denial in ITS. | |

WEIM Resource Sufficiency Evaluation Redesign Phase2

| Scenario Number | Structured scenario (RSEE2 Track -2) | |
|-----------------|--------------------------------------|--|
| 3 | Description | Verify Pro-Rata curtailment of low priority exports |
| | ISO Actions | a) CAISO initiates EEA3 level alert. b) CAISO initiates pro-rata curtailments of low priority exports of G-FP eTags with the following CAISO Priority types: <ul style="list-style-type: none"> • RTECON • RTLPT • DALPT (non-high priority DA export) |
| | WEIM Market Participant Actions | Market Participants should do the following before EEA3 alert is issued a) e-Tag several export resources as "Firm Provisional Energy (G-FP)" (via Market Path product field). b) Mark "CAISO Priority Type" in "Misc Info" as RTECON, RTLPT, DAECON and/or DALPT |
| | ISO Market Participant Actions | Market Participants should do the following before EEA3 alert is issued c) e-Tag several export resources as "Firm Provisional Energy (G-FP)" (via Market Path product field). d) Mark "CAISO Priority Type" in "Misc Info" as RTECON, RTLPT, DAECON and/or DALPT |
| | Expected Outcome | Market Participants verify curtailed G-FP e-tags in their own Web Smart Tag system. CAISO Operators will verify ITS for the curtailed G-FP e-tags. |

WEIM Resource Sufficiency Evaluation Redesign Phase2

| Scenario Number | Unstructured scenario (RSEE2 Track -2) | |
|-----------------|--|--|
| 4 | Description | Verify ADS instructions include Market Priority when HASP results broadcast to ADS: CRN_ID, DAPT, DALPT, RTPT, RTLPT, RTECON |
| | ISO Actions | N/A |
| | WEIM Market Participant Actions | Market Participants should submit bids for different priority types on the same Resource or Transaction ID in order for ADS to dispatch one resource with more than one priority type. (i.e. submit a DA SS LPT on a specific resource or transaction ID, then also submit a RT SS LPT and a RTECON bid on that same resource or transaction ID) |
| | ISO Market Participant Actions | Market Participants should submit bids for different priority types on the same Resource or Transaction ID in order for ADS to dispatch one resource with more than one priority type. (i.e. submit a DA SS LPT on a specific resource or transaction ID, then also submit a RT SS LPT and a RTECON bid on that same resource or transaction ID) |
| | Expected Outcome | Market Participants verify in ADS Market Priority CAISO Operators verify in ADS Market Priority |
| | Anticipated Settlement Outcome | N/A |
| | Expected Settlement Outcome | N/A |