

Settlement User Group

May 11, 2022

10:00 a.m. – 11:00 a.m. (Pacific Time)

| Web Conference Information | Conference Call Information |
|--|------------------------------|
| Web Address: https://caiso.webex.com/meet/settlementuser | US Toll Free: 1-844-517-1271 |
| Meeting Number: 961 854 046 | 00 1011100.1 011 017 1271 |
| Audio connection instructions will be available after connecting | US Toll: 1- 682-268-6591 |
| to the web conference. When prompted, select "Call me" and enter your phone number you will use during the call. | Access Code: 961 854 046 |

Calls and webinars are recorded for stakeholder convenience, allowing those who are unable to attend to listen to the recordings after the meetings. The recordings will be publically available on the ISO web page for a limited time following the meeting. The recording, and any related transcriptions, should not be reprinted without the ISO's permission. Hyperlinks in blue in PDF version.

The recording will be posted on our website and be available for a short period of time until May 25, 2022. Please 1 Mute your phone while the discussion is going on in order to eliminate background noise, to unmute press and hold the spacebar to temporarily unmute, double mute. Calls are structured to stimulate an honest dialogue and engage different perspectives.

To ask a question after each topic, unmute yourself before asking your question, or enter question on the Ochat

Settlement User Group Agenda

Wednesday, May 11, 2022

10:00 a.m. – 11:00 a.m. (Pacific Time)

| Time | Topic | Presenter |
|-----------------|---|--------------------------------------|
| ■ 10:00 – 10:02 | Welcome and Introduction | ■ Tyler DuBeshter |
| ■ 10:02 – 11:00 | Settlements | |
| | NERC/WECC for AY 2023 | Kathryn Wills |
| | JOU Pilot + Spring 2022 Release | Elizabeth Caldwell |
| | ■ Fall 2022 Release | Elizabeth Caldwell |
| | Market Simulation Calendar | Assad Al-Baijat |
| | Proposed Revision Requests Update | Massih Ahmadi |
| | Settlement System Upgrade | Jeremy Malekos |
| | | |





NERC/WECC for AY 2023

 The California ISO has posted the North American Electric Reliability Corporation/Western Electricity Coordinating Council (NERC/WECC) information files to the Market Results Interface - Settlements (MRI-S) and the Secure File Transfer Protocol (SFTP) server on May 9, 2022. The files contain the 2021 NERC/WECC metered demand for assessment year 2023 for scheduling coordinator (SC) review, pursuant to ISO tariff section 11.20.4(a).

| Item | Value | Unit |
|--|----------------|--------|
| Total NERC/WECC Metered Demand for Calendar Year 2021 | 216,037,246.08 | MWh |
| Estimated Preliminary NERC/WECC Charge Rate for Assessment Year 2023 | 0.048097904 | \$/Mwh |

 2021 NERC/WECC metered demand is the summation of monthly NERC/WECC metered demand quantities published previously in the T+11M recalculation statements for January 2021 through April 2021, and T+70B recalculation statements for May 2021 through December 2021. Details regarding assessment of Charge Code 6490 NERC/WECC Charge are provided in the <u>Settlements and Billing Business Practice Manual</u> (BPM) configuration guide



Spring 2022 Settlement Release

- Release Scope:
 - Project: WEIM Resource Sufficiency Evaluation Enhancements Phase 1
 - Non-project: see scope details below
- 1st draft tech docs posted: 1/10
- 1st draft config output file + release component summary posted: 1/25, contains all scope elements for JOU Pilot April 2022 Release + Spring 2022 Settlements Release + Hybrid Resources P2B configuration changes
- 2nd draft config output file + updated release component summary posted: 4/5
- Sample Statement window: calendar dates 4/4 5/20
 - WEIM RSEE Phase 1 mkt sim start: 5/19
 - Settlement code is calculating in mapstage as of TD 3/31 initial
- Pre-prod configuration output file + release artifacts target: 5/18
- Anticipated prod deployment: 5/25
- Next RUG = Tuesday, 5/17

| Late Spring May 2022 Settlements Release Component Summary | |
|---|---|
| ISSUE SUMMARY | IMPACTS |
| Settlement configuration changes to support EIM Resource Sufficiency Evaluation | PRR 1431 |
| Phase 1 | BPM-CG CC 6046 Over and Under Scheduling EIM Allocation_5.4 |
| | PRR 1421 |
| Configuration adjustments to Shortfall and Default Loss allocation to ensure | BPM - CG CC 5901 Shortfall Allocation Reversal_5.0a |
| correct invoice content | BPM - CG CC 5910 Shortfall Allocation_5.3a |
| | BPM - CC 5912 Default Loss Allocation_5.0a |
| Configuration changes to ensure IDS settlement in charge code 6456 aligns to | PRR 1419 |
| tariff clarification filing | BPM - CG CC 6456 Intertie Deviation Settlement_5.5 |
| Configuration changes to ensure MSS deviation penalty calculation accurately | PRR 1425 |
| accounts for Spin and Non-Spin dispatch energy. | BPM - CG PC MSS Deviation Penalty Quantity_5.8 |
| Detrocative configuration should to FIM Over and Hader Caheduling (OLIC) | PRR 1422 |
| Retroactive configuration change to EIM Over and Under Scheduling (OUS) | BPM - CG CC 6045 Over and Under Scheduling EIM Settlement_5.3 |
| settlement to only include ELAP/CLAP meter values for Load Imbalance OUS | BPM - CG CC 6046 Over and Under Scheduling EIM Allocation_5.1.1 |
| Quantity | RPM - CG CC 6046 Over and Under Scheduling FIM Allocation 5.3 |

Fall 2022 Settlement Release

- Release Scope:
 - Projects requiring settlement configuration changes: Hybrid Resource P2B, FRP Deliverability,
 WEIM Enhancements Avangrid
 - Projects with direct settlement impact: Central Procurement Entity
 - Non-project: scope to be communicated
- 1st draft tech docs targeting: 5/31, Hybrid Resource P2B published already
- 1st draft config output file + release component summary targeting: 6/14
- 2nd draft config output file + draft design docs + updated release component summary targeting: 6/29
- 3rd draft config output file targeting: 7/25
- Market Sim Window targeting: 7/25 9/2
- Pre-prod configuration output file + release artifacts target: 9/21
- Anticipated prod deployment: 9/28
- Next RUG = Tuesday, 5/17



Market Simulation Calendar (Spring 2022)



Spring 2022 Market Sim Calendar (MAP STAGE) April 4, 2022 through May 4, 2022

| | | | Submit Meter Data | | Submit Meter Data | | |
|-----------|-----------|--------|-------------------|---------------------------------|-------------------|--------------------------------|---------------------------------|
| Calendar | Day | CMRI | by T+2B 10:00 for | Publish Initial Statement | by T+5B 18:00 for | Publish Recalc Statement | |
| Day | | T+1B | Initial | T+5B | Recalc | T+8B | Publish Market Invoice |
| | | | T+9B | T+9B | T+70B | T+70B | |
| 04-Apr-22 | Monday | | | | | | |
| 05-Apr-22 | Tuesday | | | | | | |
| 06-Apr-22 | Wednesday | 5-Apr | | | | | |
| 07-Apr-22 | Thursday | | 5-Apr | | | | |
| 08-Apr-22 | Friday | 7-Apr | | | | | |
| 09-Apr-22 | Saturday | | | | | | |
| 10-Apr-22 | Sunday | | | | | | |
| 11-Apr-22 | Monday | | 7-Apr | | | | |
| 12-Apr-22 | Tuesday | | | 5-Apr | 5-Apr | | |
| 13-Apr-22 | Wednesday | 12-Apr | | - | | | |
| 14-Apr-22 | Thursday | | 12-Apr | 7-Apr | 7-Apr | | |
| 15-Apr-22 | Friday | | | | | | Daily Initial 05-Apr; 07-Apr; |
| | | 14-Apr | | Monthly Initial 05-Apr - 07-Apr | | 5-Apr | Monthly Initial 05-Apr - 07-Apr |
| 16-Apr-22 | Saturday | | | | | | |
| 17-Apr-22 | Sunday | | | | | | |
| 18-Apr-22 | Monday | | 14-Apr | | | | |
| 19-Apr-22 | Tuesday | | | 12-Apr | 12-Apr | 7-Apr | |
| 20-Apr-22 | Wednesday | | | | | - | Daily Recalo 05-Apr; 07-Apr; |
| | | 19-Apr | | | | Monthly Recalc 05-Apr - 07-Apr | Monthly Recalc 05-Apr - 07-Apr |
| 21-Apr-22 | Thursday | | 19-Apr | 14-Apr | 14-Apr | | |
| 22-Apr-22 | Friday | | | | | | Daily Initial 12-Apr; 14-Apr; |
| | | 21-Apr | | Monthly Initial 12-Apr - 14-Apr | | 12-Apr | Monthly Initial 12-Apr - 14-Apr |



Spring 2022 Market Sim Calendar (MAP STAGE) April 4, 2022 through May 4, 2022

| | | | Submit Meter Data | | Submit Meter Data | | |
|-----------|-----------|----------|-------------------|---------------------------------|-------------------|--------------------------------|---------------------------------|
| Calendar | Day | CMRI | by T+2B 10:00 for | Publish Initial Statement | by T+5B 18:00 for | Publish Recalc Statement | |
| Day | | T+1B | Initial | T+5B | Recalc | T+8B | Publish Market Invoice |
| | | | T+9B | T+9B | T+70B | T+70B | |
| 25-Apr-22 | Monday | | 21-Apr | | | | |
| 26-Apr-22 | Tuesday | | | 19-Apr | 19-Apr | 14-Apr | |
| 27-Apr-22 | Wednesday | | | | | | Daily Recalo 12-Apr; 14-Apr; |
| | | 26-Apr | | | | Monthly Recalc 12-Apr - 14-Apr | Monthly Recalc 12-Apr - 14-Apr |
| 28-Apr-22 | Thursday | | 26-Apr | 21-Apr | 21-Apr | | |
| 29-Apr-22 | Friday | | | | | | Daily Initial 19-Apr; 21-Apr; |
| | | 28-Apr | | Monthly Initial 19-Apr - 21-Apr | | 19-Apr | Monthly Initial 19-Apr - 21-Apr |
| 30-Apr-22 | Saturday | | | | | | |
| 01-May-22 | Sunday | | | | | | |
| 02-May-22 | Monday | | 28-Apr | | | | |
| 03-May-22 | Tuesday | | | | | 21-Apr; | Daily Recalo 19-Apr; 21-Apr; |
| | | | | 26-Apr | 26-Apr | Monthly Recalc 19-Apr - 21-Apr | Monthly Recalo 19-Apr - 21-Apr |
| | Wednesday | 3-May | | | | | |
| 05-May-22 | | | 3-May | 28-Apr | 28-Apr | | |
| 06-May-22 | Friday | | | | | | Daily Initial 26-Apr; 28-Apr; |
| | | | | Monthly Initial 26-Apr - 28-Apr | | 26-Apr | Monthly Initial 26-Apr - 28-Apr |
| 07-May-22 | | | | | | | |
| 08-May-22 | Sunday | | | | | | |
| 09-May-22 | Monday | | | | | | |
| 10-May-22 | Tuesday | | | 3-May | 3-May | 28-Apr | |
| 11-May-22 | Wednesday | · | | | | | Daily Recalo 26-Apr; 28-Apr; |
| | | | | | | Monthly Recalc 26-Apr - 28-Apr | Monthly REcalc 26-Apr - 28-Apr |
| 12-May-22 | Thursday | <u> </u> | | | | | |
| 13-May-22 | Friday | • | | | | 3-Mav | |

Market Simulation Calendar (Spring 2022)



Spring 2022 Market Sim Calendar (MAP STAGE) April 4, 2022 through May 20, 2022

| | | | Submit Meter Data | | Submit Meter | | |
|-----------|-----------|--------|-------------------|---------------------------------|---------------|--------------------------------|---------------------------------|
| Calendar | Day | CMRI | by T+2B 10:00 for | Publish Initial Statement | Data | Publish Recalc Statement | |
| Day | | T+1B | Initial | T+5B | by T+5B 18:00 | T+8B | Publish Market Invoice |
| | | | T+9B | T+9B | T+70B | T+70B | |
| 04-May-22 | - | 3-May | | | | | |
| 05-May-22 | Thursday | | 3-May | 28-Apr | 28-Apr | | |
| 06-May-22 | Friday | | | | | | Daily Initial 26-Apr; 28-Apr; |
| | | 5-May | | Monthly Initial 26-Apr - 28-Apr | | 26-Apr | Monthly Initial 26-Apr - 28-Apr |
| 07-May-22 | Saturday | | | | | | |
| 08-May-22 | Sunday | | | | | | |
| 09-May-22 | Monday | | 5-May | | | | |
| 10-May-22 | Tuesday | | | 3-May | 3-May | 28-Apr | |
| 11-May-22 | Wednesday | | | | | | Daily Recalc 26-Apr; 28-Apr; |
| | | 10-May | | | | Monthly Recalc 26-Apr - 28-Apr | Monthly REcalc 26-Apr - 28-Apr |
| 12-May-22 | Thursday | | 10-May | 5-May | 5-May | | |
| 13-May-22 | Friday | | | | | | Daily Initial 03-May; 05-May; |
| | | 12-May | | Monthly Initial 03-May - 05-May | | 3-May | Monthly Initial 03-May - 05-May |
| 14-May-22 | Saturday | | | | | | |
| 15-May-22 | Sunday | | | | | | |
| 16-May-22 | Monday | | 12-May | | | | |
| 17-May-22 | Tuesday | | | 10-May | 10-May | 5-May | |
| 18-May-22 | Wednesday | | | | | | Daily Recalo 03-May; 05-May; |
| | | 17-May | | | | Monthly Recalc 03-May - 05-May | Monthly Recalc 03-May - 05-May |
| 19-May-22 | Thursday | | 17-May | 12-May | 12-May | | |
| 20-May-22 | Friday | | | | | | Daily Initial 10-May; 12-May; |
| | | 19-May | | Monthly Initial 10-May - 12-May | | 10-May | Monthly Initial 10-May - 12-May |
| 21-May-22 | Saturday | | | | | | |
| 22-May-22 | Sunday | | | | | | |
| 23-May-22 | Monday | | 19-May | | | | |
| 24-May-22 | Tuesday | | | 17-May | 17-May | 12-May | |
| 25-May-22 | Wednesday | | | | | | Daily Recalc 10-May; 12-May; |
| | | | | | | Monthly Recalc 10-May - 12-May | Monthly Recalc 10-May - 12-May |
| 26-May-22 | Thursday | · | | 19-May | 19-May | | |
| 27-May-22 | Friday | | | | | | Daily Initial 17-May; 19-May; |
| | | | | Monthly Initial 17-May - 19-May | | 17-May | Monthly Initial 17-May - 19-May |



PRR and BPM Updates

To view all details for the PRRs in the <u>BPM Change Management application</u>

| PRR | Title | ВРМ | Status | |
|------|--|--|---|--|
| 1409 | Update configuration guides to reflect fix to RMR adjustments fo startup cost | | Final Decisions - Completed | |
| 1410 | Update configuration guides to reflect Joint-Owned Units Pilot initiative settlement | | two cycles of BPM meetings and now they are published | |
| 1419 | Updated Charge Code 6456 to implement changes related to the Tariff clarification filing. | CG CC 6456 Intertie Deviation Settlement_5.5 | | |
| 1421 | Updated multiple BPM Configuration guides to accommodate invoicing issues discovered during functional testing of Shortfall charge codes that have never been run in Settlements Production since their inception. | CG CC 5901 Shortfall Allocation Reversal_5.0a CG CC 5910 Shortfall Allocation_5.3a CG CC 5912 Default Loss Allocation_5.0a | Recommendations - Second BPM meeting scheduled on 5/24/22 | |
| 1422 | Updated multiple BPM Configuration guides for CC 6045 Over and Under Scheduling WEIM Settlement and 6046 Over and Under Scheduling WEIM Allocation to accommodate MIAF 2021-100 | CG CC 6045 Over and Under Scheduling WEIM Settlement_5.3 CG CC 6046 Over and Under Scheduling WEIM Allocation_5.1.1 CG CC 6046 Over and Under Scheduling WEIM Allocation_5.3 | Comment Period: 5/03/22 - 5/17/22 | |



PRR and BPM Updates - continue

To view all details for the PRRs in the <u>BPM Change Management application</u>

| PRR | Title | ВРМ | Status |
|------|--|--|---|
| 1425 | Updated Charge Code PC MSS Deviation Quantity to capture Spin/NSpin Instructed Imbalance Energy under scenarios where the resource was Exceptionally Dispatched in a non-contingency interval. | CG PC MSS Deviation Penalty Quantity_5.8 | Recommendations - Second BPM meeting |
| 1426 | Update configuration guides to support short-long start unit definitions update initiative | CG PC RA Availability Incentive Mechanism_5.10.0a CG PC Start-Up and Minimum Load Cost_5.20.0a | scheduled on 5/24/22 Comment Period: 5/03/22 - |
| 1427 | Updated BPM for Settlements and Billing to accommodate aligning with Annual FERC Settlement process defined in CC 550 551 FERC Fee Settlement | Settlements and Billing_v29 | 5/17/22 |
| 1431 | Updated CC 6046 Over and Under Scheduling WEIM Allocation to accommodate Resource Sufficiency Evaluation Enhancements Phase 1 | CG CC 6046 Over and Under Scheduling WEIM Allocation 5.4 | New Emergency PRR to be discussed on 5/24 & 6/28 BPM meetings Comment Period: 5/03/22 - 5/17/22 |
| 1435 | Update configuration guide to match Settlements BPM formula on Virtual Bid adjustment for WEIM BAAs as configured | CG PC Real Time Congestion v5.2.0b CG PC Real Time Congestion v5.3.0b CG PC Real Time Congestion v5.3.5a CG PC Real Time Congestion v5.4.1a CG PC Real Time Congestion v5.5.1a CG PC Real Time Congestion v5.6.0a CG PC Real Time Congestion v5.7.0a | New PRR to be discussed on 5/24 & 6/28 BPM meetings Comment Period: 5/03/22 - 5/17/22 |
| 1436 | Updated BPM Configuration guide for CC 4575 to clarify business rule 4.1 exclusions covering Flexible Ramping | CG CC 4575 GMC Scheduling Coordinator ID Charge | New PRR to be discussed on 5/24 & 6/28 BPM meetings Comment Period: 5/03/22 - 5/17/22 |



Settlement Upgrade Project

Jeremy Malekos jmalekos@caiso.com Manager Market Settlement Production

Settlement Upgrade - Overview

The current settlement system, implemented in 2008 as part of the Market Redesign and Technology Upgrade (MRTU) implementation, is nearing its end of life. The CAISO is upgrading existing settlement applications to approved architectural and information security standards.

Benefits for our customers include:

- Improved business efficiency
- Better gathering and analysis for data and front-end improvements for customers interacting with CAISO Settlement Systems
- Increased transparency for some calculations
- Accommodating data processing increases resulting from new market products and an increase in market participants
- Ability to perform complex settlement calculations



Settlements Upgrade – Get Connected

- Vendors and Market Participants plan to attend:
 - Settlement User Group (SUG)
 - Schedule updates, request for enhancements, Configuration change details, examples, calendar format differences etc.
- Settlement technical users plan to attend:
 - Bi-weekly Technical User Group (TUG)
 - B2B Improvements and New API specifications will be presented and discussed in this meeting
 - meeting details and presentation materials are available on the CAISO Developer site at www.developer.caiso.com, requires an account setup for access

Note: Meetings are available on the CAISO calendar on www.caiso.com



Settlements Upgrade – Targeted Goals

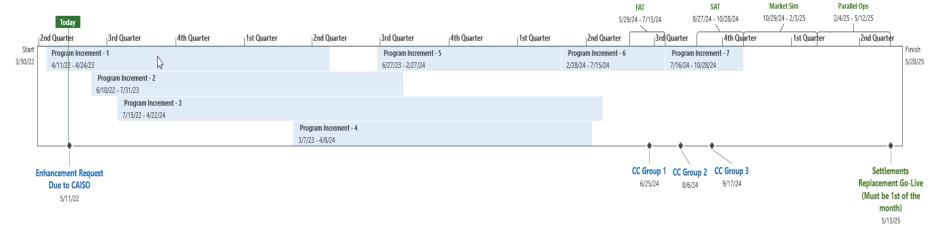
- The ISO will work closely with our market participants to ensure seamless transition from e-terra 2.5 to 3.0 configuration output file.
- The ISO will provide a forum for participants to ask more technical questions.
- The ISO will provide an environment with production-like data allowing customers to validate changes.
- The system will provide settlement outputs in various file formats, allowing all customers to access and use the data in day-to-day operations.
- The ISO will strive to make formulas and inputs transparent to enable market participants to monitor and/or validate settlement results.
- The ISO will provide market participants with an extended market simulation and timely support to the market participants and their vendors during the testing phase.



Settlements Upgrade – Targeted Goals Cont.

- From a vendor perspective:
 - -ISO will provide third party vendors with support during the transition period.
 - -ISO will provide an extended market simulation and/or parallel statements and invoices during the transition period so vendors can resolve defects on their systems.
 - ISO will provide open communications to resolve settlement differences through a customer forum.







Settlements Upgrade – We would like to hear from you

- Decomposition of the settlement files
- Migrating to OpenAPI specifications
- Upgrading to a new output config file format
- Any other enhancement requests?
- Next steps
 - Use the CIDI process to submit comments and enhancement requests. Your submittal
 will be reviewed and added to a master list that will be presented at the Settlement
 User Group (SUG)
 - The CIDI ticket will be closed once added to the SUG master list.
 - use CIDI title <u>"Settlement Upgrade Enhancement"</u>



Settlement Upgrade – Enhancements list – due by 5/11

| Submitted | Enhancement Request Programme Technology (1997) |
|-----------|---|
| 4/1/2022 | There are some EIM CCs for which a final result is not available at a resource level, if possible please include the information for the following charge codes: o 4515 GMC Bid Transaction Fee o 4564 GMC-EIM Transaction Charge § When EIM separation, min/max doesn't happen o 6046 Under Scheduling and Over Scheduling Allocation o 6478 Real Time Imbalance Energy Offset - System o 7076 Flexible Ramp Forecast Movement Allocation o 7077 Daily Flexible Ramp Up Uncertainty Award Allocation o 7078 Monthly Flexible Ramp Up Uncertainty Award Allocation o 7087 Daily Flexible Ramp Down Uncertainty Award Allocation o 7088 Monthly Flexible Ramp Down Uncertainty Award Allocation o 66200 Bid Cost Recovery EIM Settlement |
| 5/9/2022 | Also, could CISO find a way to provide subEntity granularity under a single SC on statements & invoices. It would benefit many EIM BAs. Other markets have established a parent child relationship between entities called Market Participants (MPs):: Asset Owners (AOs) where MPs are invoiced, but each AO can get a separate statement. Right now the only way to do that in CAISO / EIM is to create a separate SC and pay extra admin fees. An enhancement request for the new settlement system is to provide Electric Quarterly |
| | Report (EQR) data for market participants in a format adhering to the Transaction section of FERC's EQR Data Dictionary. |



Settlement Upgrade – Enhancements list – due by 5/11

Submitted Enhancement Request

5/3/2022

- 1.) CAISO can help EIM settlement users to perform validation more efficiently by posting the following key calculating dataset in CMRI:
- Forecast and Actual "Loss Factors" for each BAA at each interval (currently, CASIO only posted the LOSS MW for each interval in OASIS)
- o We believe the "Forecast vs. Actual" Loss Factors will be a much more meaningful & important settlement elements to disclose in CMRI.
- RTCO CC67740: Suggest CMRI Report that displays "Shift Factors"
- o "Shift Factors" that determine the Marginal Congestion Cost (MCC) breakdown price calculation for any affected BAA should be posted in CMRI for transparency of settlement
- 2.) CAISO should provide a mapping report between "APNodes" and "Resource ID" for EIM CC67740 RTCO validation
- Per CAISO, Congestion detail calculation has been performed based on "APNodes" in the Billing Determinant level, however, EIM settlement have been settled at the "Resource ID" level.

Settlement users are not able to trace and determine which Resource(s) has/have caused the Congestion.

- 3.) Settlements Reporting Suite
- a. Whether it be just a section out of CMRI or something entirely different. To have the ability to validate items from the vendor directly to CAISO without having to dive into XML data would be invaluable.
- 4.) Charge Code Transparency down to bill determinants and formulas
- a. We need the ability to dive into what is being charged and where. Currently this is the main ask from every entity of the ISO and individual vendors. We lack the ability to view anything beyond top-level charge code detail. When all of the value necessary to be more optimal in the market is to dive into the details behind those charge codes and find the main drivers within certain settlement outcomes
- b. Also thinking about the more complex charge codes like RTIEO, RTCO, RTMLO, BCR, Flex Ramp.
- 5.) Market Transparency
- a. The ability to view price and production detail at other positions across the footprint within the confines of market compliance.
- i. If there is a congestion event, we would like the ability to find the responsible BA(s) for that event. As well as the location of that event. This has direct impact on the entity for validation purposes.
- ii. If another entity is submitting an EIMBASE position with us, we should be able to view price and quantity details behind that transaction. This adds another challenge to validation to all transfers including load providing and wheeling.
- iii. Transmission losses are incredibly difficult to investigate given the current system. With the latest UFE election process, this has become more necessary.

ISO Training Schedule

| Training Course | Date and time |
|---|------------------------------|
| WEIM Resource Sufficiency Evaluation Enhancements Phase 1 (tentative)* | May 16, 2022 9:30am – 11am |
| Today's Outlook Webinar (tentative) | May 26, 2022 2pm - 3pm |
| Hybrid Resources Phase 2B Webinar (tentative) | July 18, 2022 10am – 11:30am |
| FRP Deliverability/BARR Replacement Webinar (tentative) | July 21, 2022 9am – 10:30am |

^{*} This training is specific to the WEIM audience. Check the WEIM portal for details.

Are you looking for more training?

The ISO Learning Center has computer based training available for lots of topics. Check out the Learning Center:

http://www.caiso.com/participate/Pages/LearningCenter/default.aspx



CustomerReadiness@caiso.com

Settlement Corner

Upcoming Topics Previous Topics Published Knowledge Articles Spring 2022 Release Renewable and energy RC Informational Statement Fall 2022 Release storage - Link After-the-Fact EIM Manual Dispatches from Fall Release Projects – Link ISO systems Transportation electrification Validate Mitigated prices in DA, RTPD (FMM) and micro grids Link and RTD Real Time Settlement P2 Link Calculation of meter data for TG resources ESDER P2 Link Energy Transfer System Resource (ETSR) UFE election process for RT Pricing node (Pnode) price used for CRR Settlement P2 Link Settlement Real Time Settlement Initiative – UFE Settlement – presented Oct 13 Link **Ancillary Services NO PAY** (AS NO PAY) Knowledge **Article-Link**

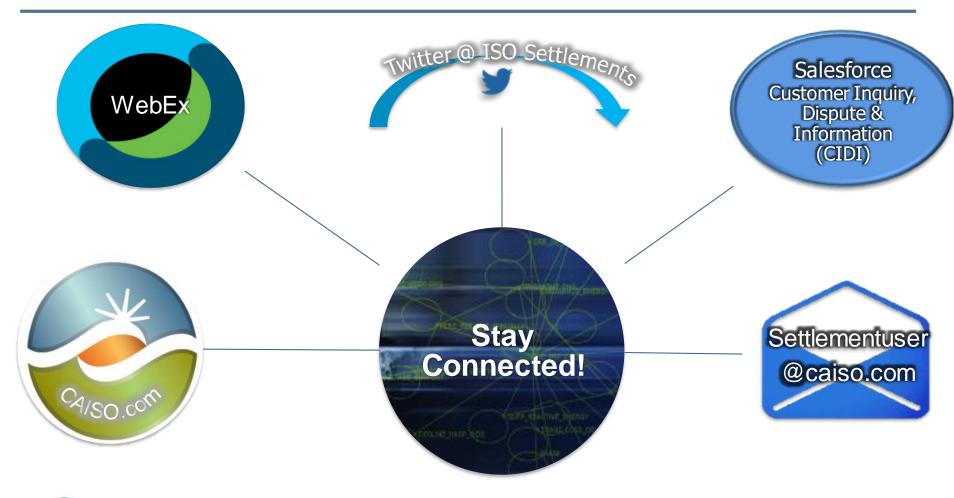


topics to us at twitter.com/isosettlements.com



Next SUG Meeting: May 25, 2022

at 10:00 A.M



California ISO

ISO Public

Page 24

Settlement User Group Calendar 2022



| | February | | | | | | |
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| | April | | | | | | | | | | |
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| May | | | | | | | | | | | | |
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| 22 | 23 | 24 | 25 | 26 | 27 | 28 | | | | | | |
| 29 | 30 | 31 | | | | | | | | | | |
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| June | | | | | | | | | | | |
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| 12 | 13 | 14 | 15 | 16 | 17 | 18 | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | | | | | |
| 26 | 27 | 28 | 29 | 30 | | | | | | | |
| | | | | | | | | | | | |

| | July | | | | | | | | | | | |
|----|------|----|----|----|----|----|--|--|--|--|--|--|
| Su | Мо | Tu | We | Th | Fr | Sa | | | | | | |
| | | | | | 1 | 2 | | | | | | |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | | |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | | | | | | |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | | | | | | |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | | | |
| 31 | | | | | | | | | | | | |

| August | | | | | | | | | | | | |
|--------|----|----|----|----|----|----|--|--|--|--|--|--|
| Su | Мо | Tu | We | Th | Fr | Sa | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | | | | | | |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | | | | | | |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | | | | | | |
| 28 | 29 | 30 | 31 | | | | | | | | | |
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| | September | | | | | | | | | | | |
|----|-----------|----|----|----|----|----|--|--|--|--|--|--|
| Su | Мо | Tu | We | Th | Fr | Sa | | | | | | |
| | | | | 1 | 2 | 3 | | | | | | |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | |
| 25 | 26 | 27 | 28 | 29 | 30 | | | | | | | |
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| October | | | | | | | | | | | | |
|---------|----|----|----|----|----|----|--|--|--|--|--|--|
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| 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | | |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 | | | | | | |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 | | | | | | |
| 30 | 31 | | | | | | | | | | | |

| | November | | | | | | | | | |
|----|----------|----|----|----|----|----|--|--|--|--|
| Su | Мо | Tu | We | Th | Fr | Sa | | | | |
| | | 1 | 2 | 3 | 4 | 5 | | | | |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | | | | |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | | | | |
| 27 | 28 | 29 | 30 | | | | | | | |
| | | | | | | | | | | |

| | December | | | | | | | | | | | |
|----|----------|----|----|----|----|----|--|--|--|--|--|--|
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| 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | | | | |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | | | | |
| | | | | | | | | | | | | |

Meeting

Agenda posted

Holiday



Follow us on Twitter @ISOSettlements for our latest updates

Settlement References

- Unscheduled Directed Recalculation Statements and Invoices
- NERC/WECC Invoice presented Sep 1
- Knowledge Articles
- ISO Settlements Twitter Page
- Ways to Participate in Settlements



Unscheduled Directed Recalculation Statements and Invoices

- On Dec. 9, 2021, the California ISO will publish unscheduled directed recalculation settlement statements reflecting the resolution of a dispute with a market participant. On the same day, the ISO will issue separate invoices for these amounts with a payment due date of December 15.
- A calendar reflecting the revised publication date, review period and invoicing is available on the ISO website at http://www.caiso.com/market/Pages/Settlements/Default.aspx under the Retroactive settlements > Recalculation settlements > Unscheduled directed subheading.
- The settlement files will be available under run type Daily Rerun Market trading dates Oct. 10, 2012, and Feb. 16, 2018. The details for October 10, 2012 will be in the comment field of the bill determinant file. Customer Service will provide the details for February 16, 2018, to affected market participants. Any disputes of charges appearing on the unscheduled directed recalculation settlement statements must be submitted by **Wednesday, January 12, 2022.**



NERC/WECC Invoice

- The ISO published preliminary NERC/WECC statements and invoices for 2022 NERC/WECC charges to the Market Results Interface-Settlements (MRI-S) and the Secure File Transfer Protocol (SFTP) server on August 20, 2021. The charges for assessment year 2022 appear on the NERC/WECC initial statement under charge code (CC) 6490, with January 1, 2020 as the trade date.
- The preliminary NERC/WECC charge rate for assessment year 2022 is provided below for scheduling coordinators' information pursuant to ISO Tariff section 11.20.4.

| Item | Value | Unit |
|--|---------------|--------|
| Total NERC/WECC Charge for Assessment Year 2022 | 10,170,748.45 | \$ |
| Total NERC/WECC Metered Demand for Calendar Year 2020 | 216,770,798.8 | MWh |
| Preliminary NERC/WECC Charge Rate for Assessment Year 2022 | 0.046919366 | \$/MWh |



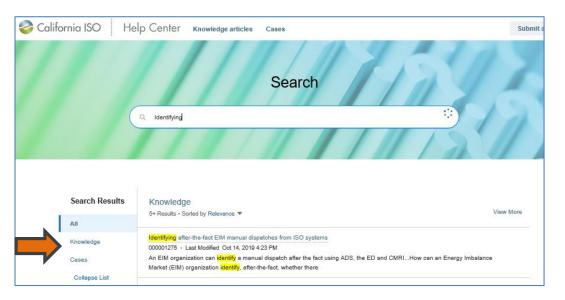
Knowledge Articles

CAISO has posted **Knowledge Articles** for FAQs in CIDI.

To access the articles in CIDI, you either:

Option 1: Type in the keyword "**Identify**" in the search field to pull up the article, or

Option 2: Click on the **Knowledge Articles** tab, and then click the **Settlements and Metering** category link to pull up a list of the Settlements related articles.



Posted Knowledge Articles to date:

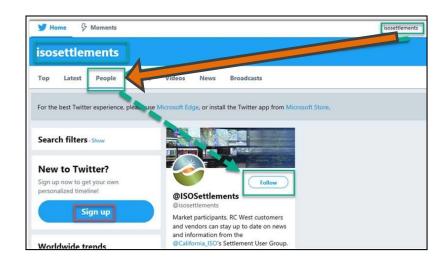
- RC rate location
- RC Informational Statement
- RC services charge
- 2019 prorated RC charge
- Payment calendar
- ED-DPMIN
- After-the-Fact EIM Manual Dispatches from ISO systems
- Validate Mitigated prices in DA, RTPD (FMM) and RTD
- Calculation of meter data for TG resources
- Pricing node (Pnode) price used for CRR Settlement
- In relation to the Day-Ahead Nodal Pricing Model, the California ISO has posted a Market Analysis report to its website for market participant review. Nodal Pricing Model Report v1



ISO Settlements Twitter

- Note: Will not replace any existing media communications
- Please take the opportunity to follow <u>@ISOSettlements on Twitter</u> by downloading the Twitter application to any mobile device
- Twitter feed can be accessed on Chrome or Edge
- No account required to view the Twitter feed and posts
- Save twitter page as a 'Favorite' on your tab
- Settlement related updates
- Market sim updates







Ways to participate in settlements

- ISO Settlements Twitter Page
 - https://twitter.com/isosettlements
- Visit the Settlements page
 - http://www.caiso.com/market/Pages/Settlements/Default.aspx
- Attend web conference meetings
 - Settlement User Group (SUG) bi-weekly meetings
 - Release User Group
 - Market Sim Conference Calls
 - Initiative status with settlement updates
 - http://www.caiso.com/StakeholderProcesses/
 - System change with settlement updates on independent releases
- BPM Change Management monthly web meeting
 - Settlement and Billing BPM status updates
 - http://bpmcm.caiso.com/Pages/default.aspx
 - http://www.caiso.com/rules/Pages/BusinessPracticeManuals/Default.aspx
 - http://www.caiso.com/Documents/ISO-AcronymList.pdf



Settlement User Group

Thank you for participating in our call



This is the last slide to this presentation

