

Settlement User Group

April 29, 2020

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

Web Conference Information	Conference Call Information
Web Address: <u>https://caiso.webex.com/meet/settlementuser</u> Meeting Number: 961 854 046	Dial-in Number: (866) 528-2256
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.	International Dial-in: (216) 706-7052 Access Code: 673 78 64

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 meetings. The recordings, and any related transcriptions, should not be reprinted without the ISO's permission. The recording will be posted on our website and be available for a short period of time until May 14, 2020.

Please mute your phone and do not put it on hold while the discussion is going on in order to eliminate background



noise. There will be an opportunity to ask questions after each topic, but before asking your question,

please state your name and affiliation. Thank you.

ISO Public

Settlement User Group Agenda and ISO Roll Call

April 29, 202	0 10:00 a.m	n. – 11:00 a.m. (Pacific T	īme)
Time	Торіс	Presenter	
■ 10:00 – 10:05	 Welcome, Introduction and ISO Roll Call 	Tyler DuE	Beshter
■ 10:05 – 11:00	 Market Settlements 		
	 Information on Market Disruptions Report 	Yanni Ch	nen
	 Spring 2020 – Settlement Release Scope an 	d Milestones Elizabeth 	n Caldwell
	 Fall 2020 – Settlement Release Milestones a 	Ind Scope Jeremy	Malekos
	 PRR and BPM Updates 	Brenda (Corona
	 Customer Readiness Spotlight On 	Rashele	Wiltzius
	 Settlement Corner 	Tyler Dul	Beshter
	- Storage		



Information on Market Disruptions Report

Market Disruption Reports

www.caiso.com->Market & Operations->Reports and bulletins->Market disruption reports

 Market Operations > Reports and bulletins
 Market disruption reports This report provides Market Participants with a comprehensive record of all market disruptions occurring in the California ISO Day-Ahead and Real-Time Markets. Reports are published monthly on the 15th of every month and include data for the trade dates ending 30 days prior to the report date.
 Market disruption reports 2020 Market Disruption Report Jan 16, 2020 - Feb 15, 2020 3/27/2020 15:46

Monthly report for all market disruption events

Weekly Price Correction Reports

California ISO

www.caiso.com->Market & Operations->Reports and bulletins->Price validation and correction reports



– Refer to the Price Fill Report section for failed or no-run market events

ISO Public

Information on Market Disruptions Report (cont.)

Another Useful Information Related to Market Disruption

 System Operation Message on OASIS (RT Messages) : OASIS->ATLAS REFERENCE->System Operation Messages

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ATLAS REFERENCE	REPORT	DEFINITION PRICES TRANSMISSION SYSTEM DEMAND ENERGY ANCILLARY SERVICES CONGESTION RE
Date From: 04/21/20	20 <u>31</u> T	o: 04/21/2020 31 Severity: [ALL]
Download XML		Download CSV
System Opera	ation Me	ssages
☆ (` (` 1 - 4	of ??? 🕨	
Message Time 🛛 🚽	Severity	★ Message Text
04/21/2020 20:31:46	Normal	The California ISO has scheduled maintenance for the IFM/RTN and EMS production environment today April 21 2020 from 23:00 - 23:59. A brief interruption in 5-min dispatches may be experienced (approx. 5-10 minutes). For any issues experienced outside of this window please contact the ISO Service Desk at (916) 351-2309 or (888) 889-0450.
04/21/2020 11:41:00	Normal	The California ISO has scheduled maintenance for the OASIS application in the production environment today April 21 2020 at 14:00 PPT. A brief interruption may be experienced (approx. 5-10 minutes). For any issues experienced outside of this window please contact the ISO Service Desk at (916) 351-2309 or (888) 889-0450.
04/21/2020 11:35:20	Normal	The California ISO will be promoting a patch in CMRI today April 21 2020 between 13:00 and 14:00 PPT. There may be a brief interruption during this window. This patch will allow for real time forecast values to be updated in the Reliability Coordinator Forecast Generation Report without overwriting the day ahead values. For any questions regarding this patch please contact your Customer Service Representative.
04/21/2020 08:28:16	Urgent	The ISO has determined a potential for over supply for the Operating Day 04/22/2020 during hours ending 1000 through 1700. Oversupply can potentially require market curtailment of preferred resources. The ISO is requesting: 1) all resources provide additional decremental Energy bids limit self-schedules 2) bids to export energy to avoid invoking additional steps in Procedure 2390 Overgeneration and 3) the ISO may issue an Operating Instruction for all EIRs (Eligible Intermittent Resources) to not exceed their DOT. Additional notices from the ISO will follow as necessary.
Report Generated: 04/27	7/2020 18:38:22	2

Spring 2020 - Settlement Release Scope and Milestones

Spring 2020 Settlement Release

- Scope:
 - **Project:** Black start system restoration phase 2 tech docs posted on 2/10
 - **Production Variances:** RC enhancement
- 1st draft configuration output files + release component summary **published on** 2/25: two files, 1 Market and 1 RC
- 2nd draft configuration output files publication not needed.
- Release component summary update **sent on 3/19**
- Pre-prod configuration output files and Design Standard updates = posted 4/22
- Production deployment on track for 4/29



Fall 2020 - Settlement Release Milestones

Initial Release Milestones as follows:

- 1^{st} draft technical documentation to post = 5/29
- 1^{st} draft configuration output file + initial release component summary ETA = 6/15
- Updated technical documentation, if needed = 6/26
- 2nd draft configuration output file + updated release component summary ETA = 7/24

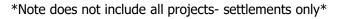


Fall 2020 - Settlement Release Scope

Ducient					
Project	Charge Code				
	6046 6474				
	Ancillary Services PC				
Excess behind the meter production implementation (EBTMP)	Measured Demand Over Control Area Excluding MSS Energy PC Measured Demand Over Control Area PC				
	MSS Deviation Penalty Quantity PC				
	MSS Netting PC				
	Real Time Energy Quantity PC				
Market settlement timeline	6474				
transformation (MSTT)	64740				
Energy storage and distributed	Spin Non Spin No Pay Quantity PC				
energy resources (ESDER 3B)	RUC No Pay Quantity PC				
	Note does not include all projects- settlements only				
🍣 California ISO	ISO Public Page 7				

Fall 2020 - Settlement Release Scope (cont.)

Project	Charge Code /Impacts			
Intertie deviation settlement – implementation (IDS)	6455 (Terminated) 6457 (Terminated) 6456 (New)			
	6458 (New)			
FERC Order No. 841 requested adjustment	TBD			
ADS Replacement	ADS data will only be available for 30 days, Market participants will need to download and store this data beginning 10/1/2020.			





PRR and BPM Updates

PRR	Title	BPM		Stage
1240	Congestion revenue rights clarifications	Congestion Revenue Rights BPM Version 27:section 7.3.1, 7.3.2.2.5 and Attachment J	ns 7.2.2,	Recommendation
1234	Updated BPM configuration guides for CC 5701 and CC 5705 to allow for correct settlement of the reliability coordinator minimum charge for entities onboarding outside of April 1 timeline	CC 5701 RC Services Charge_5.1 CC 5702 RC Services Late Payment Penalty_5.0a CC 5705 RC Services Charge Allocation_5.1 BPM for Settlements and Billing_v25	1/1/2020 1/1/2020 1/1/2020	Final Reports posted BPMs updated in Library
1233	Updated configuration guides for CC 1001, CC 1101 and CC 3101 and created new BPM configuration guides for CC 3102 and CC 1102 with regard to settlement and invoicing impacts from Black start system restoration phase 2 initiative	CC 1001 Black Start Energy Payment 5.4 CC 1101 Black Start Capability Allocation_5.0 CC 3101 Black Start Capability Settlement_5.0 CC 1102 Black Start Capability Allocation_5.0 CC 3102 Black Start Capability Settlement_5.0 BPM for Settlements and Billing_v25	5/1/2020 End 4/30/2020 End 4/30/2020 5/1/2020 5/1/2020	Final Reports posted BPMs updated in Library



New <u>Business Practice Manual Proposed Revision Request Tracking Log</u> available to view current PRR in progress and completed.

Next BPM PRR review monthly web conference meeting is on Tuesday, May 26, 2020 at 11 AM



ISO Computer Based Training Programs

Visit caiso.com **Learning Center** web page to access our training calendar, register for courses and find other informational resources: <u>http://www.caiso.com/participate/Pages/LearningCenter/default.aspx</u>

Computer Based Training – Settlement	Webinar				
There are more than 20 computer based	There are more than 20 computer based training modules on the ISO website covering:				
RC Customer Settlements	http://www.caiso.com/CBT/RC-Settlements/index.html	have cancelled in person trainings			
Energy Settlements Validation Practice	http://www.caiso.com/CBT/EnergySettlementsValidation/story.html	Welcome to the ISO	July 9, 2020		
Settlement Validation Practice	New initiatives training courses on the learning center web page				
Commitment Costs	http://www.caiso.com/CBT/CommitmentCosts-CBT/story.html				
Settlements foundational concepts (EIM)	https://www.westerneim.com/CBT/Settlements%20Foundational%2 0Concepts/Settlements-FoundationalConcepts.html	43			
Metering Overview	http://www.caiso.com/CBT/MeteringOverview/MeteringOverview.ht ml				
Settlements Process	http://www.caiso.com/CBT/SettlementsProcess/story_html5.html				
Additional MRI-S (must have certificate)	Market participant portal	CustomerReadines	s@caiso.com		

Customer Readiness Spotlight On...

Settlements Process Computer Based Training (CBT)

- What are settlements?
- Settlement statement overview

Settlements Process

Settlements timeline

Get started

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Comment	s:	-		
Charge fo	r Settlement 19-OCT			
Charge Code	Description	Current	Previous	Net
CC4515	GMC - Bid Transaction Fee	3.50500	0.00000	3.50500
CC4560	GMC - Market Services Charge	348.10820	0.00000	348.10820
	Management Charge Charge p Total	\$351.61320	\$0.00000	\$351.61320
GMC Parent Group Total		\$351.61320	\$0.00000	\$351.61320
	6 Statement TOTAL	(\$351.61320)	\$0.00000	(\$351.61320)



< The Settlements Timeline Kev There are several key deadlines and deliverables in the settlements process. Missing these deadlines could have a serious impact. T- Trade date B - Business days M - Months Click each step in the timeline below to learn more. Optional By T+36M By T+55B By T+3B By T+8B By T+12B By T+48B >) Statements Х Settlement Statement for T+12B What is it? The recalculation settlement statement is published by the ISO at T+12B based on meter data submitted, either ASQMD or ESQMD, by T+8B. Impact If there is no SC meter data submitted and there is a schedule, the ISO estimated meter data from the T+3B statement will be used.

Dispute Details

Disputes must be submitted by 26 business days after the trading day (T+26B). Estimated meter data is not disputable.

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Submit topics to us: twitter.com/isosettlements.com

Topics submitted:

- Real Time Storage
- No Pay
- Hybrid Policy
- Fall Release Projects



How is Storage used today in CAISO Balancing Authority Area?

Primary use is Ancillary Services

- Contingency Reserves
 - Excellent source for frequency response
- Regulation Energy
 - Provide quick response to regulation signals

Energy

- Limited set of resources only provide Energy



Present Battery Storage Projects

ESDER Phase 3 A & 3B Initiatives

- Hourly and 15-Minute Dispatch options
- Load shift product for behind the meter storage
- PDR and RDRR resource aggregation across LSEs
- SIBR only accepts bids at or above Net Benefit Test Price
- Measurement of behind the meter electric vehicle supply equipment (EVSE) load curtailment

FERC 841 Requested Adjustments

 Battery Resources with commingled retail/ wholesale meters eligible for wholesale charging exemption



Future Battery Storage Initiatives

ESDER Phase 4

<u>http://www.caiso.com/InitiativeDocuments/SecondRevisedStrawProposal-EnergyStorage-DistributedEnergyResourcesPhase4.pdf</u>

Hybrid & Co-Located Resources

<u>http://www.caiso.com/InitiativeDocuments/RevisedStrawProposal-HybridResources.pdf</u>



Next SUG: May 13, 2020

Contact for questions & agenda requests: settlementuser@caiso.com

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Settlement References

- Ways to Participate in Settlements
- ISO Computer Based Training Programs
- Fall Release Supplemental information
- CRR 1b Post Implementation Updates
- Settlement Timeline
- Knowledge Articles
- ISO Settlements Twitter Page
- SUG meeting calendar for 2020
- Trivia Corner



Ways to participate in settlements

- ISO Settlements Twitter Page
 - <u>https://twitter.com/isosettlements</u>
 - Additional information see slide 16 and 17
- Visit the Settlements page
 - <u>http://www.caiso.com/market/Pages/Settlements/Default.aspx</u>
- Attend web conference meetings
 - Settlement User Group (SUG) bi-weekly meetings
 - Settlement only status updates
 - Initiative status with settlement updates
 - System change with settlement updates on independent releases
 - <u>http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=ECD8A9C2-</u> 07CA-488C-8D1C-9F758595B487
 - BPM PRR Change Management monthly web meeting
 - Settlement and Billing BPM status updates
 - <u>http://bpmcm.caiso.com/Pages/default.aspx</u>
 - <u>http://www.caiso.com/rules/Pages/BusinessPracticeManuals/Default.aspx</u>
- Knowledge Articles (slide 13)
- Submit CIDI ticket
 California ISO

Fall Release Supplemental information

- Excess Behind the Meter Production Frequently Asked Questions
 - <u>http://www.caiso.com/Documents/FrequentlyAskedQuestions_ExcessBehindtheMeterProduction.pdf</u>



CRR 1b Post Implementation Updates

- Congestion revenue rights data transparency enhancements
 - <u>http://www.caiso.com/Documents/BusinessRequirementsSpecification</u>
 <u>-CongestionRevenueRightsDataTransparencyEnhancements.pdf</u>
 - Market simulation calendar:
 - <u>http://www.caiso.com/Documents/Market_Simulation_Calendar_Settlements-Independent_2020.xlsx</u>
 - Market Simulation Finished
 - Published
 - Daily Initial 24-Mar, 25-Mar
 - Monthly Initial 24-Mar 25-Mar
- Congestion Revenue Rights training
 - <u>http://www.caiso.com/participate/Pages/LearningCenter/CongestionRevenueRights.aspx</u>



Selected Option 1: Trade Date Specific Cutover

TRADE DATES	3B	9B	12B	55B	70B	9M	11M	18M	21M	24M	33M	36M
1/1/2021-forward												
12/31/2017 - 12/31/2020												

Benefits:

– Straight forward (clean cut) transition

Effective date for change

- 1/1/2021



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.

Cullion	rnia ISO	Help Center	Knowledge articles	Cases	Subn
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<u> </u>	Knowledge		er-the-fact EIM manual disp _ast Modified_Oct 14, 2019 4		

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



ISO Settlements Twitter

- Settlement related updates
- Market sim updates
- Note: Will not replace any existing media communications







ISO Settlements Twitter (cont.)

- 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 **any web browser**
- No account required to view the Twitter feed and posts



Settlement User Group Calendar

2020

Market Services

Settlement User Group Meetings

Note: dates subject to change; for the latest information please visit the Calendar on www.caiso.com.

January									
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Agenda posted

Holiday

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Settlement User Group

Thank you for participating in our call

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