

Resource Sufficiency Evaluation Enhancements (RSEE) Phase 2, Track 2 Training

Welcome Our presentation will begin shortly.

Today's Trainer: Cynthia Hinman, Lead Customer Readiness Trainer

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Housekeeping



Keep yourself muted to minimize background noise

Unmute to ask verbal questions or write questions in the chat pod Raise your hand using WebEx interactivity tools

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RSEE Phase 2, Track 2 contains two elements.

2A Clarification of Post-HASP Low-Priority Exports

2B Capacity Test Failed-to-Start Rule Exemption





Item 2B Capacity Test Failed-to-Start Rule Exemption Flag

Background How to apply References <u>RSEE Phase 2, Track 2, Item 2B</u> is an enhancement to supply consideration rules implemented in <u>RSEE Phase 1</u>

- RSEE Phase 1 enhancements:
 - The bid capacity test was enhanced to check if resources that are on-line for the whole of the RSE horizon from the previous FMM run are actually on-line (non-zero MW telemetry) at the time of the RSE test
 - If a resource's telemetry was zero or negative at the time of the RSE test, its capacity is not considered in the capacity test

Problem: Some resources can be available in a shorter amount of time than the timing of the check

Solution: The Failed-to-Start Rule Exemption



Item 2B – Requesting an exemption

- Available to resources that have zero or negative telemetry at the time of the RSE run but can be online for the next interval
- Submit an updated Generator Resource Data Template (see below)
 - Locate the Capacity Test Failed-To-Start Rule Exemption
 - Change to a "Y" (the default is "N")
- ISO will approve request within 5 to 11 business days

DH1	• : × •	✓ <i>f</i> x Capacity	Test Failed-To-Start	Rule Exemption				
	А	В	С	DE	DF	DG	DH	DI
1	PGA Name	Scheduling Coordinator ID	Resource ID	Export Capable	Joint Owned Unit	Percent Ownership for Joint Owned Units	Capacity Test Failed-To-Start Rule Exemption	Comment
2	PGA_NAME	SC_ID	RES_ID	EXP_SUPPORT	JOU	JOU_PCT_OWNERSHIP	CAP_TEST_FTS_EXEMPT	
2 3 4								
31								
31 32								
	Instruction De	efinition-GRDT Cod	de RESOURCE R	AMPRATE HEATRATE S	TARTUP FORBIDE	DEN OPR REGION REGULAT	⊕ : ◀	



Maste File

New! – Phase 2, Track 2 Changes – Master File

System	Project	UI	API	Data/Comments	Tech Specs
MF GRDT	RSEE2T2	Add a new Resource-Specific Capacity Test Failed-to-Start Rule Exemption flag	Add a new Resource-Specific Capacity Test Failed- to-Start Rule Exemption flag: capacityTestFTSExemptFlag under Resource Attributes		8/10/23



Master File

What Questions Do You Have?





- RSEE Phase 1 Initiative Training <u>WEIM-RSEE-Phase-1-Presentation-</u> <u>Notes-May-2022.pdf (caiso.com)</u> – explains the counting rules
- EIM BPM Section 11.3.2 <u>https://bpmcm.caiso.com/BPM%20Document%20Library/Energy%20Imbalan</u> <u>ce%20Market/BPM_for_Energy%20Imbalance%20Market_V30_clean.docx</u> – provides the logic for the availability check. This will also be included in the Market Instruments BPM





Item 2A – Clarification of Post-HASP Block Hour Low-Priority Export

Explanation System/application impacts What you need to do

- Requires low-priority exports to be E-tagged as Firm Provisional Energy (G-FP), with a designation of the associated CAISO Real-Time Market priority
- Identifies non-firm exports with a lower priority that can be curtailed according to existing tariff rules within each operating hour and helps with the manual curtailment in an EEA3 event
- Accounts for the capacity contribution of hourly low-priority exports in the CAISO's upward capacity and upward flex RSE



<u>Review Phase 2, Track 1 Changes – E-tagging</u>

Market Path									
PSE	Product	Contract	Misc Info						
	G-FP		No						
			No						
			No						

For priority types: DALPT* RTLPT RTECON

<u>G-FP = Generation Firm Provisional Energy</u>

G-FP means that the ISO can <u>manually</u> adjust this product under the following conditions:

- Restore contingency reserves following a contingency
- Deploy existing contingency reserves where a re-procurement of contingency reserves is deficient
- Maintain reliability, including EEA3 condition, where armed load is utilized to restore deficient contingency reserves in conjunction with E-tag curtailments, in order to maintain required contingency reserves

(Market Ops BPM Section 6.3.2)



<u>Review Phase 2, Track 1 Changes – E-tagging</u>

Physical	Path								
BA	TSP	мо	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
CISO			-	Source:	SP15			No	
	CISO			SP15	PVWEST	CISO		No	
	CISO			PVWEST	PALOVERDE500	CISO		Yes	
	CISO			PALOVERDE500	PALOVERDE500	SRP		No	
-			-	Sink:				No	

Misc Info							
Token	Value						
CAISO_CONTRACT	NONE						
CAISO_PRODUCT	ENGY						
CAISO_RES_ID							
CAISO_PRIORITY_TYP	E DALPT						

TIP:

These fields are case sensitive. For example:

- Use DALPT, not dalpt
- Use CAISO_PRIORITY_TYPE not CAISO_Priority_type



What is the problem that we are trying to solve in <u>Track 2, Item 2A</u>?

- The ISO operators need visibility to the priority of exports
 - Why? Because in stressed system conditions they may need to adjust some exports
 - To ensure there is enough MW to cover ISO load requirements
 - To fulfill the high priority deliverability exports

This initiative:

Automates the ability for ISO operators to see the priority of the E-tag awards in ITS and make curtailment decisions more efficiently

Other BAs will get a truer picture of the certainty of their imports (our exports)



What is changing with Item 2A?

ISC

Operators will see the scheduling priorities in ITS and be able to filter so that they can make decisions about curtailment based on priority

Market
Participants

- ADS and CMRI will provide scheduling priority
- Incorrect and/or incomplete tags will fail validation ullet
 - ITS will check:
 - Market Priority
 - G-FP in the Market Path
 - ITS will compare G-FP with the ISO priority in the token field of the tag



What do I need to do differently when <u>Phase 2, Track 2 Item 2A is</u> implemented?

- Refer to ADS and CMRI to locate the scheduling priority for interchange schedule
- Create E-tags for interchange transactions
 - Tag all low priority exports as firm provisional energy (G-FP); the CAISO will still carry operating reserves for these awards
 - Provide the correct priority type in the token field

TIP:

If HASP adjusts a Final RUC Schedule, the E- tag should reflect the HASP value and the DALPT market priority type. If additional HASP awards were received, they should be E-tagged separately with the appropriate real-time market priority type. This ensures the DALPT E-tag receives the highest of the LPT curtailment order if in the event post-HASP curtailments are necessary.



Important Facts about Scheduling Priorities

- What conditions prompt scheduling priorities for exports to be utilized?
 - Scheduling priorities come into play when there is <u>limited energy supply compared to</u> <u>demand</u>. In such cases, both the day-ahead (DA/RUC) and real-time (HASP) markets use these priorities to determine which exports may need to be reduced to maintain grid balance
- Do schedule adjustments only occur during EEA conditions?
 - No, the California ISO <u>can adjust schedules even if an EEA condition is not in effect</u>.
 Schedule adjustments can take place as a standard practice of the market clearing to ensure the reliability of the energy grid

For more information - <u>Scheduling Priorities Knowledge Article</u> and <u>FAQ</u>



New! Phase 2 Track 2 Changes - ADS

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ADS

New! Report for Day-Ahead/RUC Export Market Priorities

CMRI

Trade Date	SC ID	Resource	Scheduling Point	Market Priority Type	CRN	CRN Type	HE01 [MW]	HE02 [MW]	HE03 [MW]	HE04 [MW]	 HE24 [MW]	HE25 [MW]
06/22/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1				300.00	200.00	200.00	200.00	 300.00	
				DALPT								
06/22/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1				0.00	0.00	0.00	0.00	 0.00	
				DAPT								
06/22/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1				0.00	0.00	0.00	0.00	 0.00	
				TOR	ABC_5092	TOR						
06/22/2023	ABC	ABC_E_RESOURCE_2	ABC_SCH_POINT2				0.00	0.00	0.00	0.00	 0.00	
				ETC	ABC_6392	ETC						
06/22/2023	DEF	DEF_E_RESOURCE_1	DEF_SCH_POINT1	DALPT			300.00	200.00	200.00	200.00	 300.00	
06/22/2023	DEF	DEF_E_RESOURCE_1	DEF_SCH_POINT1	DAPT			0.00	0.00	0.00	0.00	 0.00	
06/22/2023	DEF	DEF_E_RESOURCE_1	DEF_SCH_POINT1	TOR	DEF_1234	TOR	0.00	0.00	0.00	0.00	 0.00	
06/22/2023	DEF	DEF_E_RESOURCE_2	DEF_SCH_POINT2	DALPT			300.00	200.00	200.00	200.00	 300.00	
06/22/2023	DEF	DEF_E_RESOURCE_2	DEF_SCH_POINT2	DAPT			0.00	0.00	0.00	0.00	 0.00	
06/22/2023	DEF	DEF_E_RESOURCE_2	DEF_SCH_POINT2	TOR	DEF_5678	TOR	0.00	0.00	0.00	0.00	 0.00	
06/22/2023	DEF	DEF_E_RESOURCE_3	DEF_SCH_POINT3	DALPT			0.00	0.00	0.00	0.00	 0.00	

Updated 9/26/23



New! Report for Real-Time Export Market Priorities

Trade Date	SC ID	Resource	Scheduling Point	Effective Intertie	Market Priority Type	CRN	CRN Type	Hour Ending	Interval 1 MW	Interval 2 MW	Interval 3 MW	Interval 4 MW
6/5/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1	ABC_EFF_INTERTIE_1	DALPT			1	50.00	50.00	50.00	50.00
6/5/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1	ABC_EFF_INTERTIE_1	DAPT			1	0.00	0.00	0.00	0.00
6/5/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1	ABC_EFF_INTERTIE_1	TOR	ABC_5092	TOR	1	0.00	0.00	0.00	0.00
6/5/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1	ABC_EFF_INTERTIE_1	RTECON			1	25.00	25.00	25.00	25.00
6/5/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1	ABC_EFF_INTERTIE_1	RTLPT			1	0.00	0.00	0.00	0.00
6/5/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1	ABC_EFF_INTERTIE_1	RTPT			1	44.00	44.00	44.00	44.00
6/5/2023	ABC	ABC_E_RESOURCE_2	ABC_SCH_POINT1	ABC_EFF_INTERTIE_2	DALPT			1	0.00	0.00	0.00	0.00
6/5/2023	ABC	ABC_E_RESOURCE_2	ABC_SCH_POINT1	ABC_EFF_INTERTIE_2	RTLPT			1	0.00	0.00	0.00	0.00
6/5/2023	ABC	ABC_E_RESOURCE_2	ABC_SCH_POINT1	ABC_EFF_INTERTIE_2	RTPT			1	100.00	100.00	100.00	100.00
6/5/2023	DEF	DEF_E_RESOURCE_1	ABC_SCH_POINT2	DEF_EFF_INTERTIE_1	DALPT			1	0.00	0.00	0.00	0.00
6/5/2023	DEF	DEF_E_RESOURCE_1	ABC_SCH_POINT2	DEF_EFF_INTERTIE_1	DAPT			1	0.00	0.00	0.00	0.00
6/5/2023	DEF	DEF_E_RESOURCE_1	ABC_SCH_POINT2	DEF_EFF_INTERTIE_1	TOR	DEF_1234	TOR	1	0.00	0.00	0.00	0.00
6/5/2023	DEF	DEF_E_RESOURCE_1	ABC_SCH_POINT2	DEF_EFF_INTERTIE_1	RTECON			1	44.00	44.00	44.00	44.00

Updated 9/26/23



CMRI

New! – Phase 2, Track 2 Changes - CMRI

System	Project	UI	API	Data/Comments	Tech Specs
CMRI*	RSEE2T2	New report for resource-specific market priority types and associated MW schedules breakdown for export resources New: Day-Ahead > RUC Import Export Schedules by Market Priority Types		Similar to the Existing Day-Ahead > DA Import-Export Schedules report, but the Schedule Type column shall be replaced with "Market Priority Type" and its data enumeration shall be: • ETC/TOR • DAPT • DALPT	8/10/23
CMRI*	RSEE2T2	New report for resource-specific market priority types and associated MW schedules breakdown for export resources New: Real-Time > Real-Time Export Schedules by Market Priority Types		Similar to Existing Real-Time -> Real-Time Unit Commitment (RTUC) Advisory Schedules report, but only report binding intervals for export resources and the Schedule Type column shall be replaced with "Market Priority Type" and its data enumeration shall be: • ETC/TOR • DAPT • DALPT • DALPT • DALPT • DALPT	8/10/23



What Questions Do You Have?





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Market Simulation Preparation

Provide logistics Review scenarios

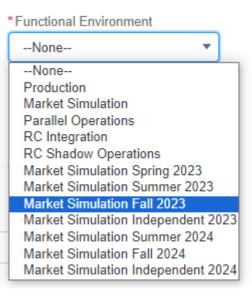
Participate in Market Simulation

Register to participate in the simulation at <u>MarketSim@caiso.com</u> mailbox as soon as possible

Attend Market Simulation Forum calls to stay informed on timing of activities for this and other Fall 2023 release initiatives

Monday and Thursday 2pm PPT

Submit questions to the ISO via the CIDI application





Scenario 1 (Unstructured) – Facilitate submission and <u>auto approval of</u> export E-tags and CAISO_PRIORITY_TYPE

Title	Action
Market Participant Actions	 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 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.

Use the following URL to submit the e-tag in MAP Stage/Market Simulation: <u>https://demo.caiso.tag.oati.com/oati/ets-login.wml</u>.



Scenario 2 (Unstructured) – Facilitate submission for <u>auto denial</u> of export Etags with incorrect Product Code and CAISO_PRIORITY_TYPE

Title	Action				
Market Participant Actions	 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 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 				
Use the following URL to submit the e-tag in MAP Stage/Market Simulation: https://demo.caiso.tag.oati.com/oati/ets-login.wml.					



What Questions Do You Have?





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Scenario 3 (Structured) – Verify pro-rata curtailment of low priority exports

Title	Action
ISO Actions	 Initiate EEA3 Alert Initiate pro-rata curtailments of low priority exports of G-FP E-tags with RTECON, RTLPT and DALPT CAISO Priority Types
Market Participant Actions – Before the EEA3 alert is issued Use the following URL to submit the e-tag in MAP Stage/Market Simulation: <u>https://demo.caiso.tag</u> .oati.com/oati/ets-login.wml.	 E-tag several export resources as "Firm Provisional Energy (G-FP)"(via Market Path product field) Mark CAISO_PRIORITY_TYPE in "Misc Info" field as RTECON, RTLPT or DALPT E-tag several export resources as <u>other than</u> "Firm Provisional Energy" Mark CAISO_PRIORITY_TYPE in "Misc Info" field as DAPT or RTPT
Expected Outcome	 Market Participants verify curtailed G-FP E-tags in their own Web Smart Tag system CAISO Operators will verify ITS for G-FP E-tags
net california ISO	ISO PUBLIC - © 2023 CAISO 28

What Questions Do You Have?





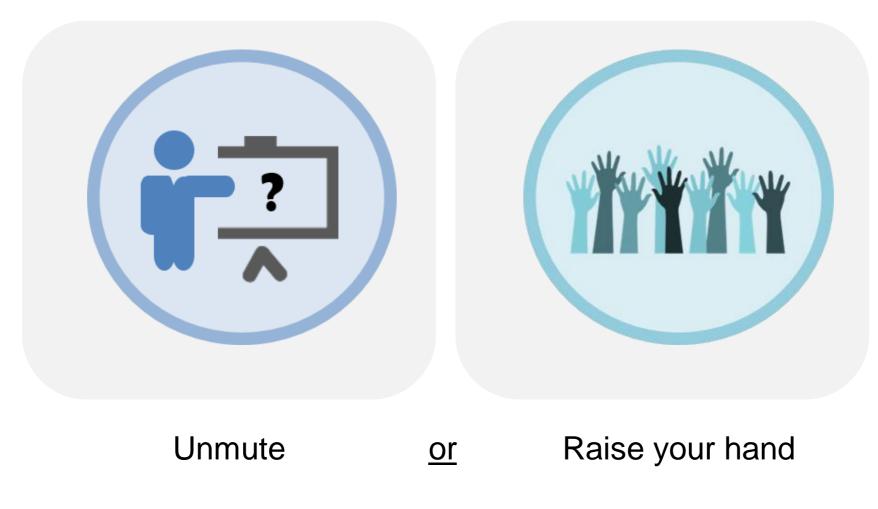
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Scenario 4 (Unstructured) – Verify ADS instructions include Market Priority when HASP results broadcast to ADS: CRN_ID, DAPT, RTPT, RTLPT, RTECON

Title	Action
Market Participant Actions	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 (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 based on HASP results CAISO Operators verify in ADS Market Priority



What Questions Do You Have?





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Wrap Up

Summary, Q&A

Recap: Here's what you need to do

- Participate in the Market Simulation and Market Simulation Forums
 - RSEE Phase 2 Track 2 Market Sim Scenarios
- Sign up for exemption from the failed-to-start rule if you are eligible (2-B)
- Use the ADS instruction type to locate the priority of your interchange awards (2-A)
- Use the two new CMRI reports to review the priority of your interchange awards (2-A)
- Tag all awards correctly and completely to avoid failing the ITS validation



- RSEE Phase 2 Track 1 Initiative Training -http://www.caiso.com/Documents/Presentation-Resource-Sufficiency-Evaluation-Enhancements-Phase-2-Track-1-Training.pdf – E-tagging rules
- Scheduling Priorities and Export Schedules Overview <u>Scheduling-Priorities-</u> and-Export-Schedules-Overview.pdf (caiso.com)
- Frequently Asked Questions Export Schedules and Scheduling Priorities -<u>FAQs-on-Export-Schedules-and-Scheduling-Priorities.pdf (caiso.com)</u>



What Questions Do You Have?





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Thank you for your participation!

For clarification on anything presented in this training, send an email to: <u>CustomerReadiness@caiso.com</u>

For any other questions or stakeholder specific questions or concerns, please <u>submit a ticket</u>.

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Bcc	





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