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

Today's Trainer

Cynthia Hinman

Lead Customer Readiness Trainer

This training will begin at 9:31

Housekeeping

REMAIN MUTED
Keep yourself muted to minimize background noise

ASKING QUESTIONS
Unmute to ask verbal questions or write in the chat pod

RAISING HAND
Raise your hand using WebEx interactivity tools

Our Meeting Agenda

Today we will cover...

- "Capacity Failed-to-Start Rule" exemption
- Low-Priority Transaction (LPT) export e-tagging
- Review market simulation scenarios
- Wrap up and resources

"Capacity Failed to Start Rule" exemption

Section Focus

- Background
- How to apply

This exemption is an enhancement to supply consideration rules that were implemented previously

- 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

California ISO

EIM BPM Section 11.3.2 explains what resources may be eligible to request this exemption

Resources that can be online with either a 0MW or negative MW (motoring) will be exempted from the exclusion by indicating "Yes" to the Capacity Test Failed-to-Start Exemption Flag on the Generator Resource Data Template (GRDT). More specifically, the failed to start functionality receives telemetry data at the time the RTBS runs as follows:

- RTBS1 @ RTBS1 @ XX:46:30
- RTBS2 @ RTBS2 @ XX+1:05:30
- RTBS3 @ RTBS3 @ XX+1:22:30

If the status of the resource at the corresponding interval from latest RTPD run at the time of the RTBS run is online and the telemetry is <=0, then the resource is considered as failed to start. Therefore, <u>if the resource is capable of running at zero or negative MWs and can be online by the time of the telemetry check, the resource is eligible for the exemption from the fail-to-start exclusion.</u>

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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

	A	B	C	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	
3								
4								
31								
32								

Instruction | Definition-GRDT | Code | **RESOURCE** | RAMPRATE | HEATRATE | STARTUP | FORBIDDEN OPR REGION | REGULAT ...

DH1 — Capacity Test Failed-To-Start Rule Exemption

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What Questions Do You Have?

Unmute yourself   <u>or</u>   Raise your hand

Low Priority Transaction (LPT) Export E-tagging rules

Section Focus
- Background
- How to apply

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Scheduling priorities are a tool used to determine the sequence of clearing exports, if needed, during times of limited supply.

Priority Level	Markets		Legend
	DAM	**RTM**	
High Priority	ETC/TOR (including the CRN)	ETC/TOR (including the CRN)	• Bid with quantity, no price under legacy contract or transmission ownership rights
	DAPT	RTPT	• Self schedule backed by a non-RA resource • RA resource on a plan to serve external load • Exports of a wheel approved and registered in 45 days
Low Priority	**DALPT**	**DALPT (Award that cleared RUC)**	**None of the above**
		RTLPT (Price taker)	
		RTECON (economic bid)	

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Low-priority exports must be **E-tagged as Firm Provisional Energy (G-FP).**

Market Path

PSE	Product	Contract	Misc Info
	G-FP		No
			No
			No

Physical Path

BA	TSP	MO	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_TYPE	DALPT

For priority types:
DALPT*
RTLPT
RTECON

*Used for DAECON and DALPT

Note: This was implemented with in RSEE Phase 2, Track 1, Summer 2023

G-FP means Generation Firm Provisional Energy

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

For priority types:
DALPT*
RTLPT
RTECON

*Used for DAECON and DALPT

These can be adjusted via DA market processes. If a schedule clears HASP, 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)

What is the problem that we are trying to solve?

- 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)

Two important tagging features

- Upon tag submission, ISO will validate tags for structure (correct product type, scheduling priority capitalization, etc.) and will be <u>denied</u> if they are tagged improperly

- Market adjustments will occur:
  - For day-ahead at 15:30 (existing) and 17:30
  - For real-time at T-40 (existing)

- If you did not receive a DA /RUC award for all the export MW that you bid in and want to re-bid them, use a <u>different</u> Resource ID/Transaction ID for the remaining MW.
  - If you use the Resource ID/Transaction ID in the RT tag that was the same as DA tag, you will get a pro-rata adjustment to both tags

Tagging Scenario 1: Real-time tag

- ## SC: submit **100 MW** tag
  - Resource ID: XYZ2
  - Product Type: G-FP
  - CAISO_PRIORITY_TYPE: RTLPT
- ## ISO: RT market publishes
  - HASP Award: 85 MW

Question:
What will happen to the tag?

Answer:
- Tag will be validated upon submission
- At T-40, the ISO will adjust the tag to 85 MW
- SC will accept the adjustment

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Tagging Scenario 2: Day-ahead tag

- ## SC: submit **100 MW** tag
  - Resource ID: ABC1
  - Product Type: G-FP
  - CAISO_PRIORITY_TYPE: DALPT
- ## ISO: DA market publishes at 13:00
  - IFM Award: 100 MW
  - RUC Award: 80 MW

Question:
What will happen to the tag?

Answer:

- Tag will be validated upon submission
- At 15:30 the ISO will adjust to **80** MW
- SC will accept the adjustment

For RSEE2, T2 there is no change. This is the existing procedure.

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Tagging Scenario 3: Two tags, same resource ID

- SC: submit **100 MW** tag
  - Resource ID: **ABC1**
  - Product Type: G-FP
  - CAISO_PRIORITY_TYPE: DALPT
- ISO: DA market publishes at 13:00
  - IFM Award: 100 MW
  - RUC Award: 80 MW
- SC: submit **20** MW tag after RUC Award
  - Resource ID: **ABC1**
  - Product Type: G-FP
  - CAISO_PRIORITY_TYPE: RTLPT

Question:
What will happen to the tags?

Answer:
- Tags will be validated upon submission
- At 15:30 the ISO will adjust to **80** MW.
- At <u>17:30</u> the ISO will adjust tags pro-rata to equal **80** MW
- SC will accept the adjustment

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Tagging Scenario 4: Two tags, different resource IDs

- SC: submit **100 MW** tag
  - Resource ID: **ABC1**
  - Product Type: G-FP
  - CAISO_PRIORITY_TYPE: DALPT
- ISO: DA market publishes at 13:00
  - IFM Award: 100 MW
  - RUC Award: 80 MW
- SC: submit **20** MW tag
  - Resource ID: **XYZ2**
  - Product Type: G-FP
  - CAISO_PRIORITY_TYPE: RTLPT

Question:
What will happen to the tag?

Answer:
- Tags will be validated upon submission
- At 15:30 the ISO will adjust to **80** MW
- SC will accept the adjustment
- At T-40 ISO will adjust 20 MW tag down, if HASP award is less than 20 MW
- SC will accept the adjustment

For RSEE2, T2 there is no change. This is the existing procedure.

Customer Market Results Interface

Day-Ahead Real-Time Post-Market Default Bids Convergence Bidding Forecast Reference LSE Energy Imbalance Market Phase Shifter

Trade Date: 02/01/2024 Entity: [ALL] Resource: Scheduling Point: [ALL]

RUC Export Schedules by Market Priority Types

1 - 1 of ???   GO

Trade Date	SC ID	Resource	Scheduling Point	Market Priority Type	CRN	CRN Type	HE01 [MW]	HE02 [MW]	HE03 [MW]	HE04 [MW]	HE05 [MW]	HE06 [MW]	HE07 [MW]	HE08 [MW]	HE09 [MW]	HE1 [MW

✕ No Data found

Report Generated: 02/05/2024 13:56:32

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

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	DALPT			300.00	200.00	200.00	200.00	…	300.00	
06/22/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1	DAPT			0.00	0.00	0.00	0.00	…	0.00	
06/22/2023	ABC	ABC_E_RESOURCE_1	ABC_SCH_POINT1	TOR	ABC_5092	TOR	0.00	0.00	0.00	0.00	…	0.00	
06/22/2023	ABC	ABC_E_RESOURCE_2	ABC_SCH_POINT2	ETC	ABC_6392	ETC	0.00	0.00	0.00	0.00	…	0.00	
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	

California ISO | Customer Market Results Interface

Day-Ahead **Real-Time** Post-Market Default Bids Convergence Bidding Forecast Reference LSE Energy Imbalance Market Phase Shifter Gas Burn Reliability Coordination

Trade Date: 02/01/2024 Entity: [ALL] Resource: Scheduling Point: [ALL] Hour: [ALL]

Real-Time Export Schedules by Market Priority Types

1 - 1 of ??? GO

Trade Date	SC ID	Resource	Effective Intertie Scheduling Point	Market Priority Type	CRN	CRN Type	Hour Ending	Interval 1 MW	Interval 2 MW	Interval 3 MW	Interval 4 MW

✕ No Data found

Report Generated: 02/05/2024 13:58:57

New! Phase 2 Track 2 Changes - ADS

ADS

Question: What will an SC need to do <u>differently</u> with respect to tagging upon implementation of RSEE Phase 2, Track 2?

Answer: Act on ISO tag adjustments immediately

Day-Ahead	• 15:30 • 17:30
Real-time	• T-40

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Here are some other tips for success:

- Ensure tags are coded properly using correct priority and product type (as implemented in RSEE Phase 2, Track 1)

- A single Resource ID/Transaction ID can have multiple market priorities.

- Use the two new CMRI reports to confirm DA and RT export priorities and awards

- Check the ADS Instructions for details on tag awards

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What Questions Do You Have?

Unmute yourself   <u>or</u>   Raise your hand

Market Simulation

Section Focus
- Logistics
- Scenarios
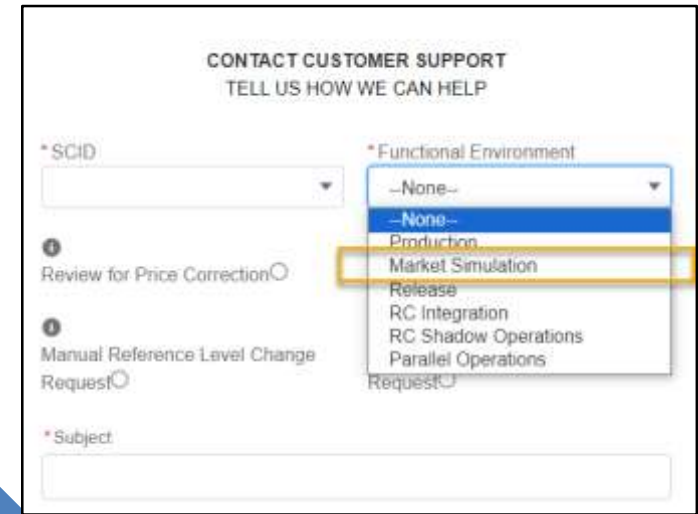
Participate in Market Simulation

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

Attend Market Simulation Forum calls to stay informed on timing of activities for this and other release
- Monday and Thursday 2pm PPT

Submit questions to the ISO via the CIDI application

CONTACT CUSTOMER SUPPORT
TELL US HOW WE CAN HELP

* SCID

* Functional Environment
--None--
--None--
Production
Market Simulation
Release
RC Integration
RC Shadow Operations
Parallel Operations

Review for Price Correction

Manual Reference Level Change Request

* Subject

California ISO

Scenario 1 (Unstructured) – Facilitate submission and <u>immediate approval</u> of 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	• Verify CISO approval of G-FP and other export resources e-tags in 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: https://demo.caiso.tag.oati.com/oati/ets-login.wml.

Scenario 2 (Unstructured) – Facilitate submission for <u>denial</u> of export E-tags 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 RTECON, RTLPT or DALPT • E-tag several export resources as product type G-FP (via Market Path product field) and mark CAISO_PRIORITY_TYPE in "Misc Info" as DAPT or RTPT
Expected Outcome	• Verify E-tags in your 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?

Unmute yourself   <u>or</u>   Raise your hand

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: https://demo.caiso.tag.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 other than "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

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

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What Questions Do You Have?

Unmute yourself   or   Raise your hand

Wrap Up and Resources

Section Focus
- Review what was covered
- Additional resources

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](#)

- Use the ADS instruction type to locate the priority of your interchange awards (MapStage and Production)

- Use the two new CMRI reports to review the priority of your interchange awards (MapStage and Production)

- Tag all awards correctly and completely to ensure ITS validation (Production)

- Sign up for exemption from the failed-to-start rule if interested and eligible (Production)

What Questions Do You Have?

Unmute yourself   <u>or</u>   Raise your hand

Reference Links

Resource Sufficiency Evaluation Enhancements (RSEE), Phase 2, Track 1 Training:
https://www.caiso.com/Documents/Presentation-Resource-Sufficiency-Evaluation-Enhancements-Phase-2-Track-1-Training.pdf

Capacity Failed-to-Start Rule Exemption
EIM BPM Section 11.3.2:
https://bpmcm.caiso.com/BPM%20Document%20Library/Energy%20Imbalance%20Market/BPM_for_Energy%20Imbalance%20Market_V30_clean.docx – provides the logic for the availability check. This will also be included in the Market Instruments BPM

Scheduling Priorities and Export Schedules Overview:
https://www.caiso.com/Documents/Scheduling-Priorities-and-Export-Schedules-Overview.pdf

Frequently Asked Questions (FAQ) on Export Schedules and Scheduling Priorities:
https://www.caiso.com/Documents/FAQs-on-Export-Schedules-and-Scheduling-Priorities.pdf

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Tell us how we did

Takes 3-5 minutes to complete

Helps us improve future training

Link: https://www.surveymonkey.com/r/caisocoursesurvey

Thank you for your participation!

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

For any other questions or stakeholder specific questions or concerns, please [submit a CIDI ticket](#).

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