



California ISO

# Functional changes to outage modifications in the Outage Management System (webOMS)

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# Definitions

Abbreviation/Term	Definition
API	Application Programming Interface
OMS/webOMS	Outage Management System
SC	Scheduling Coordinator
UI	User Interface

# Agenda

- This presentation highlights the recent changes to the way outages can be modified:
  - Aggregate resources: Ignore redundant curtailment points in API & UI requests and allow future new child additions
  - Prevent curtailment increase of planned CAISO outage





# OMS ENHANCEMENTS

## Aggregate resources: Ignore redundant curtailment points requests and allow future new child additions

All  
Users

- Instead of rejecting the entire request for aggregate resources, WebOMS will ignore curtailment points in API requests and through the UI that are not needed with 0 curtailment
- This allows SCs to add additional children after the outage starts by adding a 0 derate breakpoint for the past period and a breakpoint with curtailment for the future
- The purpose of this change was to prevent system performance impact
- Implemented in the WebOMS production environment on September 7, 2021

# Reference Table: Aggregate resources – Ignore redundant curtailment points requests and allow future new child additions



Action	Type of Outage	CAISO	RC CAISO / EIM
Add Child Aggregator	Planned	Can add child agg where: <ul style="list-style-type: none"> <li>• For time already passed only 0 derate allowed</li> <li>• For a future time period, 0 or more derate allowed</li> </ul>	Can add child agg where: <ul style="list-style-type: none"> <li>• For time already passed only 0 derate allowed</li> <li>• For a future time period, 0 or more derate allowed</li> </ul>
	Forced	Can add child agg where: <ul style="list-style-type: none"> <li>• For time already passed only 0 derate allowed</li> <li>• For a future time period, 0 or more derate allowed</li> </ul>	Can add child agg where: <ul style="list-style-type: none"> <li>• For time already passed only 0 derate allowed</li> <li>• For a future time period, 0 or more derate allowed</li> </ul>

# Reference Table: Aggregate resources – Ignore redundant curtailment points requests and allow future new child additions



Action	Type of Outage	CAISO	RC CAISO / EIM
Update Curtailment on existing Child Aggregator in Outage	Planned	Can update curtailment on child agg	Can update curtailment on child agg
	Forced	Can update curtailment on child agg	Can update curtailment on child agg

# Example: Ignore redundant curtailment points requests and allow future new child additions



- In this example, an outage was created with a start date/time of 8/11/2021 at 13:00
- On 8/16/2021, a new child generator was added (shown in close-up view below)
- Notice that the breakpoint for the past period must have a total curtailment value of 0
- Notice that the new break point for the future period can include an additional derate

Availability Date/Time	OOS	NDC	PMAX	Availability MW	Outage Curtailment	Total Curtailment	
08/11/2021 13:00	<input type="checkbox"/>	<input type="checkbox"/>	71.70	71.70	0.00	0.00	+
08/16/2021 13:00	<input type="checkbox"/>	<input type="checkbox"/>	71.70	50.00	21.70	21.70	+
08/16/2021 23:59	<input type="checkbox"/>	<input type="checkbox"/>	71.70	71.70	0.00	0.00	

Past period

Future period

# Prevent Curtailment Increase of Planned CAISO Outage



- Once the outage starts, all planned and forced CAISO outages will be prevented from increasing the MW derate on the outage beyond the maximum curtailment for that trade date
- In the case where an outage is extended, webOMS will limit the curtailment to the previously approved maximum curtailment on the trade date of the planned end date
- The purpose of this change was to minimize impact to Resource Adequacy
- Implemented as part of Summer Readiness Resource Adequacy Enhancements Track 1 Changes on July 15, 2021

# Reference Table: Prevent Curtailment Increase of Planned CAISO Outage



Action	Type of Outage	CAISO	RC CAISO / EIM
Update Curtailment on Parent in existing Outage	Planned	Can update curtailment on parent <u>up to max curtailment limit</u>	Can update curtailment on parent
	Forced	Can update curtailment on parent	Can update curtailment on parent

# Example: Prevent Curtailment Increase of Planned CAISO Outage

- Notice that the attempt to add a breakpoint with a higher curtailment value results in an error message that states: “The curtailment MW value submitted exceeds the allowed daily limit for an active outage.”

7867 : The curtailment MW value submitted exceeds the allowed daily limit for an active outage.

Availability Notes AS Availability PMIN re-rate Ramp Re-Rate Warnings Max Energy Min Energy Load Max Load Min Use Limited RIMS Data Groups Version History

Resource : SHOW PAST AVAILABILITY SHOW CHILD DATA Child Generators Select Child Generators

Availability Date/Time	OOS	NDC	PMAX	Availability MW	Outage Curtailment	Total Curtailment	Overlapping Outages
08/17/2021 10:00	<input type="checkbox"/>	<input type="checkbox"/>	4.00	3.00	1.00	1.00	
08/19/2021 10:00	<input type="checkbox"/>	<input type="checkbox"/>	4.00	2.00	2.00	2.00	
08/23/2021 23:59	<input type="checkbox"/>	<input type="checkbox"/>	4.00	4.00	0.00	0.00	

Attempt to increase curtailment from 1 to 2



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