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

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Radha Madrigal
Customer Readiness

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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

All Users

| Action | Type of Outage | CAISO | RC CAISO / EIM |
|---|---|---|---|
| Add Child Aggregator | Planned | Can add child agg where:<br>• For time already passed only 0 derate allowed<br>• For a future time period, 0 or more derate allowed | Can add child agg where:<br>• For time already passed only 0 derate allowed<br>• For a future time period, 0 or more derate allowed |
| | Forced | Can add child agg where:<br>• For time already passed only 0 derate allowed<br>• For a future time period, 0 or more derate allowed | Can add child agg where:<br>• For time already passed only 0 derate allowed<br>• For a future time period, 0 or more derate allowed |

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

All Users

| 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

All Users

- 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 | ☐ | ☐ | 71.70 | 71.70 | 0.00 | 0.00 | + |
| 08/16/2021 13:00 | ☐ | ☐ | 71.70 | 50.00 | 21.70 | 21.70 | + |
| 08/16/2021 23:59 | ☐ | ☐ | 71.70 | 71.70 | 0.00 | 0.00 | |

Past period

Future period

# Prevent Curtailment Increase of Planned CAISO Outage

CAISO

- 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

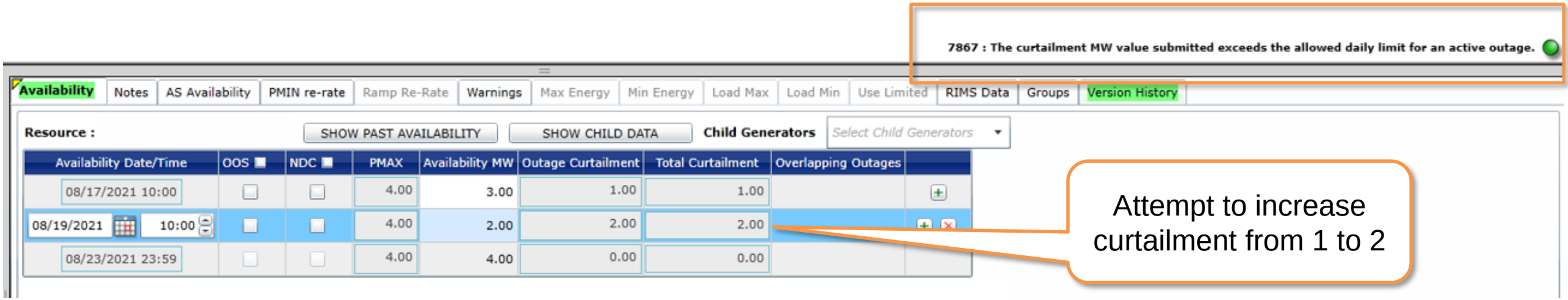
# Reference Table: Prevent Curtailment Increase of Planned CAISO Outage

CAISO

| Action | Type of Outage | CAISO | RC CAISO / EIM |
|---|---|---|---|
| Update Curtailment on Parent in existing Outage | Planned | Can update curtailment on parent up to max curtailment limit | 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.”



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Or send an email to:
CustomerReadiness@caiso.com