

Outage Management System (webOMS) Enhancements

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Radha Madrigal Customer Readiness

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Acronyms

| Abbreviation/Term | Definition |
|-------------------|--|
| API | Application Programming Interface |
| A/S | Ancillary Services |
| EOD | End of Day |
| MSG | Multi-Stage Generating Resource |
| NGR | Non-Generating Resource |
| NOW | Nature of Work |
| OMS/webOMS | Outage Management System |
| OOS | Out of Service |
| RIMS | Resource Interconnection Management System |
| UI | User Interface |





- This presentation highlights the following webOMS changes implemented in the Production environment across the following user populations:
 - All Users
 - CAISO and EIM
 - EIM and RC West
 - CAISO







OMS ENHANCEMENTS



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Submission of Overlapping Outages for three Ambient Nature of Work (NOW) and RIMS Testing

All Users

- webOMS will allow users to submit overlapping outages for the following nature of work categories:
 - Ambient Due to Temp Only forced outages are allowed for this NOW
 - Ambient Not Due To Temp Only forced outages are allowed for this NOW
 - Ambient Due to Fuel Insufficiency Both planned and forced outages are allowed for this NOW
 - **RIMS Testing** Both planned and forced outages are allowed for this NOW
- For outages with a NOW of Ambient Due to Temp or Ambient Not Due to Temp, a suggested practice is to create single trade date outage cards for NOW of this type. This provides the most flexibility for changes because an outage scheduled for tomorrow is not yet in the OUT state.



Fix to Retain Historic Resource-Participant Ownership Relationship



- In some cases, when Master File sends only the future effective start dates for a particular Resource-Participant association, webOMS changes the historical start date to a later date.
- This has caused issues for participants as they are not able to see their older outages until a manual fix is applied.
- This fix addresses this issue and will preserve the historical start dates as expected.



Pop-up Referencing Availability Data for Transmission Outages (UI Impact)



- There was an incorrect pop-up box regarding resource outages that would show up on transmission outages that had a planned start date prior to 6 years and a planned end date within the last 6 years. This would occur when looking up very old outages.
- This fix will remove the erroneous pop-up (shown below).





Version ID Order Display in the Version Compare Screen (UI Impact)

All Users

- There was a display issue in the version history of the outage card. The order that versions were displayed in was not sorted in ascending order.
- This has been corrected with this patch. Example of incorrect sort order shown here:
 This has been corrected with this patch. Example of incorrect sort order shown here:

| ashboard | 3 Outage 9931732 | Version Comparison | 0 | | |
|--------------------|---------------------|---------------------|--------------------|--------------------|--|
| ersion Comparis | son | | | | |
| Outage ID 9931732 | | | | | |
| Outage Attributes | Request ID 10049290 | Request ID 10050687 | Request ID 9931732 | Request ID 9990518 | |
| State | SUBMITTED | CANCELLED | SUBMITTED | APPROVED | |
| Version ID | 1 | 4 | 1 | 2 | |
| OutageChangeR | equest | | | | |
| State Reason | | | | | |
| Request User | | | | | |
| Requested Date | | | | | |
| Request User Conta | act | | | | |
| Accept User | | | | | |
| Accepted Date | | | | | |
| Accept User Contac | t | | | | |
| Contact User | | | | | |
| Contact Date | | | | | |
| Accept Reason | | | | | |
| Source | | | | | |
| BA/TOP Confirmed | | | | | |



Modification to the Initial Query Checkbox in Flowgates Display (UI Impact)



• A fix was implemented to initialize the search when the Flowgates UI is loaded instead of using the last search.



Master File PMin Change Not Reflected in Break Point of PMin Re-rate Card (UI Impact)



• This fix addresses the UI issue where the Pmin change was not reflected correctly in the Pmin re-rate tab for MSG resources.



Support B2B RetrieveAvailabilityService_V2 Using the Precalculated Availability for Multiple Resource Requests (API Impact)

- All Users
- webOMS was leveraging caching when a retrieve API request was made for a single resource. The system has been extended to leverage the same performance benefit with the caching logic when an API request is made for retrieving multiple resource outages.



Overlapping PMax Outages for Non-Generator Resource (NGR)/Battery Resources



- To help support participants for Summer Readiness, webOMS will support the creation of overlapping PMax/availability derate outages for an NGR/battery resource.
- webOMS will continue to <u>prevent</u> overlapping outages for other outage types, such as Load Max, Ramp Rate, A/S Availability, Max Energy Limit and Min Energy Limit.



Overlapping PMax Outages for Non-Generator Resource (NGR)/Battery Resources



The following examples demonstrate overlapping outages that are allowed:

| Scenario | Outage 1 | Outage 2 |
|----------|--|---|
| 1 | Has PMax curtailment or OOS and one or more of LoadMax, Max Energy, Min Energy, etc. | Overlapping outage with a PMax or OOS curtailment |
| 2 | Has PMax curtailment or OOS | PMax curtailment or OOS and one or more of Load Max, Max Energy, Min Energy, etc. |
| 3 | Has PMax curtailment or OOS | Overlapping outage with one or more of Load Max, Max Energy, Min Energy, etc. |



Performance Issue Causing Late Automatic State Transitions



 A fix has been implemented to address the performance issue impacting the workflow engine that was seen when there were several overlapping outages involving large aggregates and MSGs which had the same start and end date/times.



Prevent Extension of Planned CAISO Outage



• Once the outage starts, all planned and forced CAISO outages will be prevented from being extended beyond the EOD of the planned end date.



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.



Cancel pending requests prior to automatically denying outages

- CAISO
- With the implementation of Resource Adequacy Enhancements, webOMS denies outages that have yet to start once instructed by the resource adequacy system.
- When this happens, outages with pending requests are also denied and the pending requests remain in the pending state. This prevents participants from creating new outages until the pending request has been rejected by the ISO.
- With this enhancement, the pending request will automatically be rejected prior to the denial, thus requiring no further manual intervention.





- CAISO Users: webOMS training CBTs are located on the Market Participant Portal
 - **EIM Users:** webOMS training CBTs are located on the Western EIM Portal
 - **RC West Users:** webOMS training CBTs are located on the RC West Portal

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