Market Simulation Independent Pre Spring 2015 and Fall 2014 Release

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Lead Market Simulation Coordinator

Independent Pre Spring 2015 and Fall 2014 Release
February 5th, 2015
Agenda

• Independent Pre Spring 2015 and Fall 2014 Market Simulation Initiatives and Timelines
• Independent Pre Spring 2015 and Fall 2014 MAP Stage Availability
• OMS Market Sim Update
• OMS Cutover Activities
• OMS Technical Update
• DRS API’s
• RDRR Mkt Sim Re-Run
• Next Steps
• Reference Slides
Independent Pre Spring 2015 and Fall 2014 Release
Market Simulation Initiatives and Timelines

**Outage Management System Replacement** - July 28\(^{th}\), 2014 – February 26\(^{th}\), 2015 (Unstructured)

**DRS API’s** - February 10\(^{th}\), 2015 – February 20\(^{th}\), 2015 (Unstructured)

**RDRR Mkt Sim Re-Run** - February 23\(^{rd}\), 2015 – March 13\(^{th}\), 2015 (Structured)
Independent Pre Spring 2015 and Fall 2014 Release
MAP Stage Availability

• MAP Stage Scheduled Maintenance – Outage today 15:00 - 16:00, February 5th, 2015

• WebOMS MAP Stage Scheduled Maintenance – Outage today 15:00 - 16:00, February 5th, 2015 (part of the MAP Stage maintenance; not WebOMS specific)
Outage Management System

The Outage Management System Market Simulation –

• **Outage Management System**: July 28\textsuperscript{th} – February 26\textsuperscript{th}, 2015 (Unstructured)

  • For coordinated outage approval, please email MarketSim@caiso.com.
WebOMS Key Dates

• **WebOMS Go-Live Schedule**
  – 2/26/2015: Section 9 of the tariff
• September 2014 transmission outages available in MAP Stage OMS
• September 2014 generation outages from SLIC will be in MAP Stage WebOMS this week.
• ISO requests that participants minimize outage submission 1 week prior to and 1 week after go-live
## Outage Management System Known Issues List

<table>
<thead>
<tr>
<th>#</th>
<th>Severity (H/M/L)</th>
<th>New or Existing Issue</th>
<th>Issue Description</th>
<th>Resolution Expectations</th>
<th>CIDI #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L</td>
<td>Existing</td>
<td>OMS only allows to copy one cell at a time for Availability Date/Time</td>
<td>Enhancement. Target Date Post Go-Live</td>
<td>00160592</td>
</tr>
<tr>
<td>2</td>
<td>L</td>
<td>Existing</td>
<td>webOMS UI - Resource Availability Date Duration Not Updating on Day-rollover.</td>
<td>Next Maintenance Window</td>
<td>00161584</td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>Existing</td>
<td>For FAR outage, after submitting IN time via web service, the response xml is missing &lt;actionSubType&gt;.</td>
<td>ISO is investigating</td>
<td>00161845</td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>Existing</td>
<td>Retrieving outage change request via web service returns no equipment information</td>
<td>Next Maintenance Window</td>
<td>00161877</td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>Existing</td>
<td>Retrieval of Facility Outage definition via web service returns wrong data.</td>
<td>Next Maintenance Window</td>
<td>00161921</td>
</tr>
<tr>
<td>6</td>
<td>M</td>
<td>Existing</td>
<td>Resource Availability Report in OMS Map Stage</td>
<td>Next Maintenance Window</td>
<td>00162132</td>
</tr>
<tr>
<td>7</td>
<td>M</td>
<td>New</td>
<td>Break Points for Canceled Outages are being returned via RetrieveAvailability and RetrieveResourceOutage APIs</td>
<td>ISO is investigating</td>
<td></td>
</tr>
</tbody>
</table>
TECHNICAL AGENDA

- Adjusting availability with overlapping outages
- MSG (P_{min} / P_{max} combined)
- Aggregates
- P_{min} Rerates
- MasterFile changes
Outage Management System

Adjusting Availability with Overlapping Outages

- Curtailment calculation
  - OMS-GEN-BRL016

- Shortening outage duration and handling of vacated periods
  - OMS-GEN-BRL017

- Extending outage duration
  - Existing availability points in the future should be taken into consideration

- General PMax validation rules
  - OMS-GEN-BRL004, 005, 010 & 022
  - Availability points are never deleted from the system
  - New points may be introduced as result of MF changes

Outage Management System

MSG PMax Derate and PMin Re-rate Combined

- MSG PMax validation rules
  - OMS-GEN-BRL021 & 033
- MSG PMin validation rules
  - OMS-GEN-BRL031
- PMax and PMin cross validation rules
  - OMS-GEN-BRL027
- General PMax and PMin validation rules
  - OMS-GEN-BRL004, 005, 009, 010, 022, 023 & 034
  - Note: Overlapping Pmax outages are allowed while overlapping Pmin outages are not allowed

Outage Management System

Aggregates

• **Aggregates**
  • OMS-GEN-BRL001 & 005
  • Note: there is no correlation between stated availability at the aggregate level and the child resource level

Outage Management System

PMin Re-rates

• **PMin re-rate validation rules**
  - OMS-GEN-BRL004, 005, 009, 023 &034
  - Note: PMin re-rate is now profile-based allowing multiple points per outage. Also, multiple PMin outages are allowed per resource.

• **MSG PMin validation rules**
  - OMS-GEN-BRL031

• **PMax and PMin Cross validation rules**
  - OMS-GEN-BRL027

Outage Management System

Master File (MF) Changes and Outage Impacts

- Outages may be flagged as inconsistent or invalid due to MF changes.
- Changes to MSG and Aggregate definitions as well as some PMax /PMin changes will cause availability to be reset to Pmax.
- New availability points will be introduced to cover PMax changes.
- Invalid outages must be shortened or canceled while inconsistent outages can be updated.
- Invalid/Inconsistent outages must be resolved before any new outages can be created for the invalid/inconsistent timeframe for the resource.
- Inconsistent outages will complete auto state transitions as applicable while invalid outages will not.
- Pending requests associated with inconsistent/invalid outages will be left as-is and will be re-validated again in order to be accepted.
## Outage Management System

### Master File Changes and Associated Notification Messages

<table>
<thead>
<tr>
<th>Data Change</th>
<th>Outage Classification</th>
<th>Compare to Rerate/Derate</th>
<th>Notification Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMax New &gt; Pmax Old</td>
<td>N/A</td>
<td>N/A</td>
<td>Effective at DD/MM/YY HH:MM, PMAX Reference Value has changed, please verify resource availability for Outage ID ###</td>
</tr>
<tr>
<td>PMax New &lt; Pmax Old</td>
<td>Inconsistent</td>
<td>PMax New &lt; Stated Availability</td>
<td>Effective at DD/MM/YY HH:MM, PMAX Reference Value has changed that resulted in Negative Curtailment. The WebOMS system has re-set Availability to be equal to the PMAX Reference Value for the affected time periods. Please review and re-state Availability, if necessary, on Outage ID ###</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>PMax New &gt; Stated Availability</td>
<td>Effective at DD/MM/YY HH:MM, PMAX Reference Value has changed, please verify resource availability for Outage ID ###</td>
</tr>
<tr>
<td></td>
<td>Inconsistent</td>
<td>PMax New &lt; PMin Rerate</td>
<td>Effective at DD/MM/YY HH:MM, PMAX Reference Value has changed and is now lower than stated PMIN value. PMIN value must be re-stated on Outage ID ###</td>
</tr>
<tr>
<td>PMin New &lt; PMin Old</td>
<td>N/A</td>
<td>N/A</td>
<td>Effective at DD/MM/YY HH:MM, PMIN Reference Value has changed, please verify PMIN re-rate for Outage ID ###</td>
</tr>
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## Outage Management System
### Master File Changes and Associated Notification Messages

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<tr>
<td>PMin New &gt; PMin Old</td>
<td>Inconsistent</td>
<td>PMin New &gt; PMin Rerate</td>
<td>Effective at DD/MM/YY HH:MM, PMIN Reference Value has changed that results in Pmin &gt; Stated Pmin. The WebOMS system has re-set Stated Pmin to be equal to the PMin Reference Value for the affected time periods. Pmin must be re-stated on Outage ID ###</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>PMin New &lt; PMin Rerate</td>
<td>Effective at DD/MM/YY HH:MM, PMIN Reference Value has changed, please verify PMIN re-rate for Outage ID ###</td>
</tr>
<tr>
<td></td>
<td>Inconsistent</td>
<td>PMin New &gt; Stated Availability</td>
<td>Effective at DD/MM/YY HH:MM, PMin Reference Value has changed and is now higher than stated Availability. The WebOMS system has re-set Availability to be equal to the PMin Reference Value for the affected time periods. Availability must be re-stated on Outage ID ###</td>
</tr>
<tr>
<td>MSG -&gt; Non MSG</td>
<td>Invalid</td>
<td></td>
<td>Effective at DD/MM/YY HH:MM, the Resource Type has changed. Please end Outage ID ### and submit a new outage request for the remaining timeframe</td>
</tr>
</tbody>
</table>
Independent Pre Spring 2015 DRS API’s

• DRRS API’s Market Simulation –
  – **DRRS API’s** - February 10\(^{th}\), 2015 – February 20\(^{th}\), 2015 (Unstructured)

• Beginning February 2\(^{nd}\), 2015 please provision DRRS through AIM for all people within the POC’s organization by February 10\(^{th}\), 2015. If you wish to grant access to someone not in their organization please submit the AARF by February 4\(^{th}\), 2015 for processing.

• DRS Closed in MAP Stage until the start of Market Simulation

## RDRR Mkt Sim Re-Run

- **RDRR Market Simulation** –
  - **RDRR Re-Run** - February 23rd, 2015 – March 13th, 2015 (Structured)

### RDRR Structured Scenarios

<table>
<thead>
<tr>
<th>Description</th>
<th>End to End RDRR Process TD = Mar 4, 2015</th>
</tr>
</thead>
</table>
| ISO Actions | ISO will take the following steps -
  1. TD-4B ISO approves resource modification, on MP's behalf if applicable
  2. TD-1B ISO dispatches the resources in DAM
  3. TD ISO dispatches the resources in RTM
  4. TD +3B ISO runs Performance in DRS system
  5. TD +5B ISO publishes “initial” settlement statement including submitted OMAR meter data, where applicable |
| SC Actions | Please follow the following steps in order -
  1. No later than TD-7B MP to register resources and submit RDTs
  2. TD-5B LSE/UDC approve registrations
  3. TD-2B MPs submit 10 days of meter data for base line in DRS
  4. TD-1B MPs submit bids on the registered resource
  5. TD +2B MPs submit meter data to the DRS and OMAR for scenario TD
  6. TD +5B MP's validate their settlement statement |
| Expected Outcome | DRS correctly calculates the resources' performance. Settlements correctly calculates the charges/credits per the resources' performance. |
| Anticipated Settlement Outcome | Impacted Charge Codes are CC 6470 and 6475 |
Next Steps

• The next teleconference will take place @ 13:00 PPT on Monday, February 9th, 2015
Fall 2014 Release Market Simulation Plan

ISO System Access Documentation

ISO Market Simulation Support

• **Hours** - 09:00 - 18:00, PST (Monday through Friday)
• **Mkt Sim Coordinator Phone** - (530) 518 - 8539
• **ISO’s 24X7 Help Desk** - (916) 351-2309 (Connectivity - GUI or API)
• **Email** - MarketSim@caiso.com
Market Simulation Issue Management

- Submit all issues to the CIDI case management system.
- CIDI tickets will need to have “Functional Environment = Market Simulation Fall 2014” to be reviewed by ISO SME’s.