Market Simulation Kick Off of the Fall 2012 Release

Christopher McIntosh
Lead Market Simulation Coordinator

Fall 2012 Release
September 6th, 2012
Agenda

• ISO Market Simulation Support
• Market Simulation Issue Management
• Communication Plan
• Market Simulation Initiatives and Timelines
• Market Simulation Settlements Calendar
• MAP Stage Availability
• NGR-REM Phase 2 Simulation
• Data Release 3 Simulation
• IRR Annual Enhancements Simulation
• Next Steps
• Reference Slides
ISO Market Simulation Support

• **Hours** - 09:00 - 18:00, PST (Monday through Friday)
• **Phone** - (916) 351-2248
• **ISO’s 24X7 Help Desk** - (916) 351-2309 (Connectivity, Endpoints)
• **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 2012” to be reviewed.
# Communication Plan

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Call-in Information</th>
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<tbody>
<tr>
<td>Monday</td>
<td>13:00 - 15:00 PPT</td>
<td>Call-in Number: (800) 230-1096 International Call-in: (612) 234-9959</td>
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<td>Thursday</td>
<td>13:00 - 15:00 PPT</td>
<td>Call-in Number: (800) 230-1096 International Call-in: (612) 234-9959</td>
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## WebEx Information

- **Web Address (URL):** [www.webmeeting.att.com](http://www.webmeeting.att.com)
- **Meeting Number:** 8665282256
- **Access Code:** 9365289
Fall 2012 Release Market Simulation Initiatives and Timelines


**Transmission Reliability Margin** – September 18th, 2012 to September 28th, 2012

**Regulatory Must Take Generation** – September 18th, 2012 to September 24th, 2012

**Data Release and Accessibility Phase 3** – September 18th, 2012 to September 28th, 2012

**Contingency Dispatch Enhancements** – September 20th, 2012 to September 28th, 2012

**Commitment Cost Refinements 2012 Green House Gas** – September 18th, 2012 to September 28th, 2012

**72 Hour Residual Unit Commitment** – September 18th, 2012 to September 21st, 2012

**Replacement Requirements for Schedule Generation of Outages** – October 29th, 2012 to November 2nd, 2012


**ISO Reliability Requirements Annual Enhancement** – September 10th, 2012 to September 14th, 2012
# Market Simulation Settlements Calendar

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<tr>
<th>Calendar Day</th>
<th>Day</th>
<th>Review MQS T+2B</th>
<th>Publish Initial Settlement Stmt T+4B</th>
<th>Review OMAR T+6B (noon)</th>
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MAP Stage Availability

Current MAP Stage Scheduled Maintenance - Closed until September 10\textsuperscript{th}, 2012 @ 08:00

MAP Stage Spring Release Daily Maintenance Window - 16:00 - 20:00

MAP Stage Weekly Maintenance Window - Thursday’s, 09:00 – 20:00
NGR-REM Simulation Timeline

The NGR-REM Phase 2 Simulation timeline –

- NGR-REM Phase 2 Connectivity Testing MAP Stage: 9/10
- NGR-REM Phase 2 Simulation Schedule Dates: TD 9/11 – 9/28
- NGR-REM Phase 2 Unstructured Scenario Execution Dates: TD 9/14, TD 9/17 – 9/21, TD 9/24 and TD 9/28

NGR-REM Phase 2 Market Simulation Structured Scenarios -
Non-Generator Resource Regulation Energy Management Simulation Overview

NGR/REM is an approved market initiative that allows new types of energy storage resources, such as batteries and flywheels participation in the ISO markets consistent with FERC order 719 and 890. NGR/REM also allows new storage technologies to provide regulation energy over a continued sustained period.

**SIBR:** NGR as a generation resource  
**DAM/RTM:** Model NGR with an negative to positive power injection  
**Settlements** - Settle the NGR energy and AS similar as generator;  
**Master File:** Define NGR resource characteristics and REM flag  
**SLIC:** Support NGR register outage or de-rate ramp rates  
**OASIS:** Include NGR for publishing T+90 bids,  
**EMS:** Model NGR with supply range of negative to positive
Data Release 3 Simulation Timeline

The Data Release 3 Simulation timeline –

• Data Release 3 Connectivity Testing MAP Stage: 9/10
• Data Release 3 Simulation Schedule Dates: TD 9/18 – 9/28
• Data Release 3 Unstructured Scenario Execution Dates: TD 9/18 – 9/28

Please note - Data in the new MPP reports will be mocked up for simulation.
Data Release Phase 3 Simulation Overview

On December 11, 2012 the OASIS and MPP user interface upgrade will be deployed into production. The enhancements will be visible through a new color scheme, a new home page, and data formatting changes. The market simulation will be conducted using unstructured scenarios for the following functionality:

- **OASIS**
  - Aggregated Generation Outages
  - Wind and Solar Forecasts
  - CRR Public Bids

- **MPP**
  - Shift Factors (Day-Ahead, HASP, RTD)
  - Transmission Limits (Day-Ahead, HASP, RTD)
  - Load Distribution Factors (Day-Ahead)
IRR Annual Enhancements Simulation Timeline

The IRR Annual Enhancements Simulation timeline –

- IRR Annual Enhancements Connectivity Testing MAP Stage: 9/10
- IRR Annual Enhancements Schedule Dates: 9/10 – 9/14
- IRR Annual Enhancements Unstructured Simulation Execution Dates: 9/10 – 9/14
IRR Annual Enhancements Simulation Overview

• On October 1, 2012 an updated ISO Reliability Requirements (IRR) application user interface with new functionality for annual resource adequacy and supply plans submittal will be deployed into production. The market simulation will be conducted using unstructured scenarios:

• Additional Downloading Capability
  – Annual non-California Public Utilities Commission (non-CPUC) resource adequacy template
  – Annual California Public Utilities Commission (CPUC) resource adequacy template
  – Annual supply plan template

• Additional Upload Capability
  – Annual resource adequacy plan template
  – Annual supply plan template
  – Check the status of the annual resource adequacy or supply plans

Please refer to Market Notice submitted 8/15/12:
Next Steps

• The next teleconference will take place at 13:00 PPT on Monday, September 10th, 2012.
Fall 2012 Release Market Simulation Plan

- http://www.caiso.com/Documents/Market%20simulation%20plan