
OCTOBER 8, 2024

Market Renewal Program (MRP): Highlights of the End-to-End Testing Phase

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Agenda

- Purpose of the End-to-End Testing Phase
- Key Dates for Market Participants
- In Scope and Out of Scope Applications, Processes, and Interfaces
- Expectations for Market Participants
 - Registration Data and Reference Level Data
 - Dispatch Instructions, Commitments, and Schedule
 - Operational Reports
 - Settlement Statements and Data Files
 - Price Responsive Loads (PRLs) and Virtual Traders
- Next Steps

Purpose of the End-to-End Testing Phase

Objective: to provide Market Participants an opportunity to confirm their ability in executing key business processes and systems that MRP is changing.

All systems that are in scope will be connected and Market Participants will be able to test the cycle of processes that start with the submission of bids and offers in the Day-Ahead Market (DAM) all the way through the receipt of dispatch instructions in Real-Time and receipt of reports and settlement files based on their test market transactions.

End-to-End Testing Schedule

Activity	Target Date
Release of Test Cases and Issue Log Template for Market Participants	Jan 06, 2025
Kick-Off Meeting for End-to-End Testing Phase	Jan 13, 2025
Start Date of End-to-End Testing	Jan 20, 2025
<i>Live Q&A Sessions with the External Readiness, IT, and Implementation Supervisors</i>	
• Q&A Session 1 for Market Participants	Feb 04, 2025
• Q&A Session 2 for Market Participants	Feb 18, 2025
• Q&A Session 3 for Market Participants	Mar 04, 2025
• Q&A Session 4 for Market Participants	Mar 18, 2025
End Date of End-to-End Testing	Mar 21, 2025
Wrap-up Meeting for End-to-End Testing	Apr 11, 2025

What is in scope for End-to-End Testing?

The following applications, processes and interfaces will be in-scope for End-to-End Testing:

- Online IESO (for temporary reference level changes only)
- Market Information Management (MIM) System including the Energy Market Interface (EMI)
- Dispatch Service System
- Outage Coordination and Scheduling System (OCSS)
- Market and System Reports from the IESO Reports Site
- Settlement Statement and Data Files from the IESO Reports Site

What is out of scope for End-to-End Testing?

The following applications, processes and interfaces will be out of scope for End-to-End Testing:

- Registration changes in Online IESO
- Prudential Manager including the calculation of updated Prudential Support Obligations (PSOs)
- Ex-post Market Power Mitigation (MPM) assessments
- Invoice statements
- Notice of Disagreement (NOD) assessments
- Cutover and rollback sequence (this will be included in a separate test cycle)

Expectations for Market Participants: Registration Data

- Production registration data (including the Network Model) will be copied into the Sandbox environment to accommodate updates made by Market Participants as part of their operational work and in preparation for MRP Go-Live.
- The IESO will issue notifications to Market Participants when Production data is copied into the Sandbox environment and will note the date when the snapshots are taken from Production.

Expectations for Market Participants: Reference Level and Reference Quantity Data

- Reference Level Launch Date: **February 1, 2025**
- If a Market Participant approves the reference level data from their preliminary view reports by January 9, 2025, the IESO will import this data from Production to Sandbox one week before the start of End-to-End Testing.
- If Market Participants have not finalized their reference level data before January 9, 2025, the IESO-determined reference levels for dispatchable resources in Sandbox will be used to evaluate dispatch data and generate operational reports in the interim. This data is consistent with what participants currently see in Market Trials for the dispatchable resources under their organization.

Expectations for Market Participants: Reference Level and Reference Quantity Data (cont.)

- To accommodate participants who finalize their reference level data after the initial copy was taken, as well as changes made after the Reference Level Launch date, the IESO will refresh the reference level data in the Sandbox environment in the middle of the End-to-End Testing window.
- A copy of registration, the latest network model, and reference level data from Production will be taken and applied in the Sandbox environment based on a specific date chosen by the IESO. The proposed dates will be provided to members at the next IWG meeting.
- Participants will be able to test fuel cost change requests and alternate cost profile requests during this test phase. A quick-take will be published to assist testers on how to submit these temporary changes in Online IESO.

Expectations for Market Participants: Dispatch Data, Instructions, and Commitment Notifications

- Market Participants will be able to submit different types of dispatch data in EMI or through MIM web services. This is consistent with the data that they can submit during Market Trials.
- Depending on the data submitted by Market Participants and the conditions that are applied in the Sandbox environment, bids and offers may be mitigated during ex-ante mitigation.
- Dispatch instructions and commitments will be issued by the IESO's Dispatch Scheduling and Optimization (DSO) system at their regular frequency and will be based on the Market Participant transactions in the Sandbox environment. The resources that are dispatched or committed during this test phase will depend on which bids and offers are considered economical by the DSO.

Expectations for Market Participants: Dispatch Data, Instructions, and Commitment Notifications (cont.)

- Dispatch instructions and commitments will be issued automatically, 24x7.
- The IESO can issue manual dispatch instructions or commitments for specific resources at the request of participants. Manual intervention will only be performed during business hours and is limited to a small set of resources.
- Other test scenarios in scope:
 - Curtailment of intertie transactions will be accommodated during this test phase.
 - Market Participants will be able to test a scenario where a DAM failure occurs.
 - Market Participants will be able to test the change to the One-Day Advance Approval Process for planned outages.

Expectations for Market Participants: Market and System Reports

- Public and confidential reports will be available during this test phase, except for those reports that are regularly scheduled outside the End-to-End Testing window (for example: reports that are produced annually)
- Operational reports will be available in the Sandbox IESO Reports Site as per their publishing frequency.
- Reports will be based on test market transactions in the Sandbox environment.
- Resources that finalize their reference level data by January 9, 2025 will see their data reflected in their operational reports at the beginning of the End-to-End Testing phase.

Expectations for Market Participants: Market and System Reports (cont.)

- Resources that have not finalized their reference level data by January 9, 2025 will still receive operational reports. However, their reports will be based on IESO-determined reference level data until their Production data is copied into the Sandbox environment.

Expectations for Market Participants: Settlement Statements and Data Files

- The IESO will begin to publish settlement statement and data files 7 calendar days after the start of the End-to-End Testing phase.
- Only settlement statements that pertain to the physical market will be generated during this test phase. These files will reflect market transactions in the Sandbox environment.
- Preliminary, final, and recalculated settlement statements will be provided to Market Participants using different trade dates, and all statements will be accompanied by their corresponding data files.
- Month-end statements will be generated to allow Market Participants to verify transactions that appear only at the end of the month.

Expectations for Market Participants: Settlement Statements and Data Files (cont.)

- The IESO will create the initial set of measurement data for Market Participants to be used for the first preliminary settlement calculation. This will be based on the DSO schedules in the Sandbox environment.
- Once the first set of preliminary settlement statements are posted, participants can download the measurement information that was used as part of their data files.
- Market Participants will be able to modify their measurement information to drive the outcomes they wish to see in their subsequent settlement statements. The IESO will provide instructions in the End-to-End test plan on how to submit this modified data via Workspaces.

Expectations for Market Participants: Settlement Statements and Data Files (cont.)

- The modified measurement data will be used in the calculation of the related final settlement statements. It will also be used in generating the subsequent settlement files during End-to-End Testing.
- Other items in scope:
 - Market Participants will be able to see two-settlement transactions for energy and operating reserve bids and offers.
 - Day-Ahead Market and Real-Time Market Make-Whole Payment (MWP) charges are in scope and will appear on the settlement statements of impacted Market Participants.
 - Mitigated intertie transactions will be reflected on settlement statements.

Expectations for Market Participants: Settlement Workflows in Online IESO

- Market Participants will have access to the Fuel Cost Compensation Form in Online IESO Sandbox and can continue to test their ability to submit this form during the End-to-End Testing. However, the IESO will not process the data submitted, and related charges will not be included in the settlement statement of Market Participants. Related charges will be available in the generic sample settlement statements that will be published in Q4 2024.
- Market Participants can perform a functional test of the Notice of Disagreement (NOD) process (for example, submit NODs for new charge types and receive confirmation that the form was submitted successfully) but their resolution will not be in scope and will not be reflected in settlement statements that are generated during this test phase.

Expectations for Market Participants: Ex-Post Mitigation Settlement Charge Types

- Ex-post mitigation assessments for physical and economic withholding will not be performed during End-to-End Testing.
- Market Participants who wish to test charge types related to ex-post mitigation settlements will be able to do so using the generic sample settlement statements, which will be posted on the IESO's MRP webpage in Q4 2024.

Expectations for Market Participants: Price Responsive Loads (PRL) and Virtual Traders

- Market Participants who expressed interest in testing their resources as a PRL and/or participating as a Virtual Trader during Market Trials will continue to do so during End-to-End Testing (unless the IESO is informed otherwise).
- Other Market Participants who did not elect to become a PRL or Virtual Trader but may be interested in doing so during End-to-End Testing should inform the IESO of their intentions by November 29, 2024.
- The IESO will manually update the participation type of interested Virtual Traders in the backend of its registration system.
- New PRL requests in the test environment must be initiated by the Market Participant in Online IESO Sandbox.

Next Steps

- IESO will publish the Test Plan for the End-to-End Testing Phase in late October 2024.
- During the stakeholder engagement week of November 2024, the IESO will be hosting an informational session to provide a walkthrough of the next and final testing phase for the Market Renewal Program.
- Market Participants should address their connectivity issues prior to the start of End-to-End Testing in January 2025. Applicant Representatives are responsible for verifying that proper contact and system roles have been assigned to the participant's Sandbox user and API accounts.
- Market Trials will conclude on October 23, 2024. Market Participants are encouraged to perform functional testing to confirm that they can push and pull data from the IESO's systems.

Thank You

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