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# Market Renewal Program (MRP): End-to-End Testing Plan (External)

Version 3.0

January 31, 2025

# Document Change History

Issue	Reason for Issue	Date
1.0	Initial issue of the Market Renewal Program (MRP): End-to-End Testing Test Plan (External)	June 28, 2024
2.0	<p>The following sections have been updated:</p> <ul style="list-style-type: none"> <li>2. End-to-End Testing Phase</li> <li>2.2 What is out of scope for End-to-End Testing?</li> <li>2.3 Preparing for End-to-End Testing</li> <li>3. Participating as a Price Responsive Load and/or Virtual Trader during End-to-End Testing</li> <li>4. Simulated Market Conditions and Constraints in the Sandbox Environment</li> <li>5.1.1 Registration Data</li> <li>5.1.2 Reference Level and Reference Quantity Data</li> <li>5.2 Outage Coordination and Scheduling System (OCSS)</li> <li>5.3 MRP Market Information Management (MIM) System and MRP Energy Market Interface (EMI)</li> <li>5.4 MRP Dispatch Service</li> <li>5.5 Market and System Reports from the IESO Reports Site</li> <li>5.6 Settlement Statement and Data Files</li> <li>5.6.1 Measurement Data</li> <li>5.6.3.1 Fuel Cost Compensation Form</li> <li>8. End-to-End Testing Schedule</li> <li>10.2 Assigned Test Cases for Market Participants</li> <li>10.3.3 Defect (Issue) Prioritization</li> <li>10.3.4 Re-execution of Test Cases</li> <li>11. Availability of the Sandbox Environment and Applications</li> <li>13. Additional Resources to Support Market Participants During Testing</li> </ul>	December 20, 2024

	<ul style="list-style-type: none"> <li>• Appendix 1: Market and Environmental Conditions in the Sandbox Environment</li> <li>• Appendix 3: List of In-Scope IESO Reports for End-to-End Testing to remove Intertie Economic Withholding Monthly Summary Report and Physical Withholding Monthly Summary Report</li> <li>• Appendix 4: Settlement Schedule for the End-to-End Testing Phase</li> </ul> <p>The following sections have been added to provide clarification based on stakeholder questions and feedback:</p> <ul style="list-style-type: none"> <li>• 6. Scenarios requiring IESO-Market Participant Communication</li> <li>• 7. Resources to be tested for Narrow Constrained Areas</li> <li>• Appendix 6: List of Scenarios requiring IESO-Market Participant Communications</li> </ul>	
3.0	<p>The following sections have been updated:</p> <ul style="list-style-type: none"> <li>• Appendix 1: Market and Environmental Conditions in the Sandbox Environment to move S27 – Resettlement Statement from February 26 and February 27, 2025 to March 14, 2025</li> <li>• Appendix 6: List of Scenarios requiring IESO-Market Participant Communications to include S7 – MPM</li> </ul>	January 31, 2025

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# 1. Introduction

As the IESO prepares for the launch of the renewed market on **May 1, 2025**, Market Participants (MPs) will have an opportunity to verify that their systems and processes can interact with the IESO's applications and interfaces that are changing because of MRP, help identify issues within the IESO's systems, and gain confidence that their systems can interact with the IESO's market-facing applications prior to the new and updated systems being implemented next year.

This test plan is focused on the last phase of Market Participant Testing: **End-to-End Testing**.

The purpose of this document is to:

- provide an overview of what End-to-End Testing is,
- provide insight into what inputs and conditions will be applied in the IESO's system to support the testing of specific scenarios,
- identify what systems and workflows will be out of scope during this test phase,
- outline key dates and information that Market Participants will need to be aware of to complete their testing activities on time, and
- identify who Market Participants can contact to receive testing support during this period.

## 2. End-to-End Testing Phase

The objective of the End-to-End Testing Phase is to provide Market Participants and their service providers an opportunity to validate their ability to execute key business processes and system interactions that are affected by the Market Renewal Program. All Market Participant facing systems and supporting IESO systems in scope of the Market Renewal Program will be integrated and available for testing in the Sandbox environment. Market Participants will be able to test the full cycle of business processes, starting from the submissions of bids and offers in the Day-Ahead Market (DAM) through to the receipt of dispatch instructions in Real-Time (RT). In addition, Market Participants will be able to download operational reports, settlement statements and data files that are based on market transactions.

The End-to-End Testing Phase will span nine (9) weeks and is scheduled to start on **January 20, 2025**, and end on **March 26, 2025**.

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

Market Participants will be able to test the following applications and interfaces, along with the processes supported by these systems, during End-to-End Testing:

- *Online IESO* for fuel cost change requests and alternate cost profile requests only,
- Submission of bids and offers to the *Market Information Management (MIM)* System through web services or the *Energy Market Interface (EMI)*,
- Receiving and responding to dispatch instructions and commitment notifications from the *Dispatch Service* System via web services or the graphical user interface (GUI),
- Submission of outage requests via the Outage Coordination and Scheduling System (OCSS),
- Downloading market and system reports that are published and made available via the *IESO Reports Site*, and
- Downloading settlement statement and data files that are produced by the *Commercial Reconciliation System (CRS)* that participants can download from the *IESO Reports Site*.

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

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

- Registration changes in Online IESO
- Market Participant Prudential System (MPPS) including the calculation of updated Prudential Support Obligations (PSOs)
- Ex-post Market Power Mitigation (MPM) assessments
- Settlement statement and data files for the financial market
- Submission of E-Tags for interchange transactions
- Invoice statements
- Notice of Disagreement (NOD) assessments
- Cutover and rollback sequence (to be offered in a separate test cycle)

## 2.3 Preparing for End-to-End Testing

Market Participants are recommended to complete the following activities prior to the End-to-End Testing Phase:

- Review the [Market Participant Test Plan](#) to become oriented with the IESO's testing strategy for MRP.
- Assess your organization's testing needs and ensure that staff are available to perform End-to-End testing from January 20, 2025 to March 26, 2025.

- Align your systems with the changes that are outlined in the technical specifications for MIM, Dispatch Service, operational reports and settlement statement and data files.
- Verify that your user and API accounts are active in the Sandbox environment, have the correct contact and system roles, and can access the IESO applications successfully.
- Confirm that your organization's API systems can push and pull data from the IESO's market-facing systems.
- Complete the necessary activities that are outlined in the [Readiness Plan for Registration Launch and Reference Level Launch](#).
- Submit a request for IESO Workspaces to be able to send and/or receive data to and from the IESO to support your testing needs. IESO Workspaces is a secure file management platform that allows the IESO and Market Participants to share content with each other. Market Participants can request access by submitting an email to [IESO Customer Relations](#) with the name and email of users that require a Workspaces account.

### 3. Participating as a Price Responsive Load and/or Virtual Trader during End-to-End Testing

Price Responsive Loads (PRLs) and Virtual Traders (VTs) are new resource and participation types that will be introduced as part of the renewed market in 2025. Market Participants who informed the IESO of their intention to participate as a Virtual Trader or a PRL during End-to-End Testing by November 29, 2024 will be able to participate as such during this test phase.

### 4. Simulated Market Conditions and Constraints in the Sandbox Environment

As noted in Section 5 of the [MRP Market Participant Test Plan](#), the IESO will set up different market conditions and constraints in the Sandbox environment to drive certain outcomes and to support the execution of test scenarios that have been requested by Market Participants. This setup will be applied in the backend of the IESO systems and will change on a weekly basis. [Appendix 1](#) outlines the different market conditions and constraints that will be implemented in the Sandbox environment during each week of End-to-End Testing. If Market Participants wish to test a specific scenario during the week, Market Participants are to submit dispatch data the day before from 06:00 AM to 10:00 AM EPT during the DAM submission window. The DAM calculation engine will run and generate the outputs for the next trade date.



There are some scenarios Market Participants will be able to execute throughout the entire duration of End-to-End Testing. This includes being able to submit offers and receive dispatch instructions for Generator Offer Guarantee (GOG) advancements and extensions, submitting Financial Reference Level (FRL) change requests, and submitting the Fuel Cost Compensation Form in Online IESO. As a reminder, the IESO will not process the submitted data in the Fuel Cost Compensation Form and related charges will not be included in the participants' settlement statements during End-to-End Testing.

Market Participants will also be able to test the submission of Notice of Disagreements (NODs) starting on January 28, 2025 when the first preliminary settlement statement will be published until the end of End-to-Testing. Similar to the Fuel Cost Compensation Form, the IESO will not be evaluating the NODs submitted during this test phase.

End-to-End Testing will be paused from **February 28, 2025 to March 7, 2025** to allow the IESO to complete final preparations for the launch cutover. The IESO recommends Market Participants do not conduct End-to-End Testing during this period as the systems may not operate as expected due to the internal preparations that the IESO will be undertaking at that time. Market Participants can use this timeframe to address any issues in their systems before End-to-End Testing resumes on **March 10, 2025 and** continue to run until **March 26, 2025**. The IESO will share more details on cutover testing with Market Participants in Q1 2025.

The IESO reserved Weeks 7 to 9 to re-run scenarios that encountered challenges during Weeks 1 to 6 of End-to-End Testing due to system issues or to enable Market Participants to receive different dispatch outcomes. The IESO will seek feedback from Market Participants on scenarios that would be most valuable to re-run during this period prior to the start of Week 7.

## 5. In-scope Applications and Workflows During End-to-End Testing

### 5.1 Online IESO

#### 5.1.1 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.

To help Market Participants plan on what resources they can test during End-to-End Testing, the following network models are targeted to be included in future snapshots:

- The first snapshot will be taken after the Registration Launch on November 11, 2024 and will include resources and data updates that are part of the November network model.
- The second snapshot will be taken following the January 2025 NMB and will include registration data changes that are made after the Registration Launch date.

- The third snapshot will be taken following the February 2025 NMB and will include final registration data changes that are made after the Registration Launch date.

Market Participants who require differences from their Production resource data should consult with their MRP business advisors to discuss options and feasibility. Approved adjustments will be applied with each relevant snapshot. [Appendix 2](#) lists all the Production registration attributes that will be imported into the Sandbox environment of Online IESO. The IESO will notify participants when Production data is copied into the Sandbox environment and will provide the date when each snapshot is taken

### **5.1.2 Reference Level and Reference Quantity Data**

Following Registration Launch, Market Participants with dispatchable resources started to receive the Preliminary View (PV) reports for each of their resources. More information about this can be found in Section 8.5 of [The Readiness Plan for Registration Launch and Reference Level Launch](#).

Assuming that a Market Participant does not initiate an Independent Review Process (IRP) to request a change to the data contained in PV reports that are issued before **January 9, 2025**, the IESO will import the reference level and reference quantity data from these reports into the Sandbox environment one week before the start of the End-to-End Testing Phase. Participants who have not received their PV report or who have initiated an IRP before this date can still participate in End-to-End Testing but will be using the IESO-determined reference levels that are consistent with what was assigned for their dispatchable resources during Market Trials (refer to Section 2.3.2 of the [MRP Market Trials Test Plan](#) for more details).

To accommodate Market Participants who finalize their reference level data after January 9, 2025, as well as changes made post-Reference Level Launch on February 1, 2025, the IESO will assess and may refresh the reference level and reference quantity data in the Sandbox environment during the End-to-End Testing window. The IESO will inform Market Participants as to when this refresh would be performed.

#### **5.1.2.1 Fuel Cost Change Requests and Alternate Cost Profile Requests**

Market Participants will be able to test the workflows related to fuel cost change requests and alternate cost profile requests during End-to-End Testing. A quick take will be published in January 2025 to instruct Market Participants on how to initiate and submit these requests in Online IESO.

## 5.2 Outage Coordination and Scheduling System (OCSS)

During End-to-End Testing, Market Participants will be able to test updated timelines for the 1-day advance approval process, where the updated submission deadline is 10:00 EST two business days before the start date of the outage, and the IESO assessment deadline is at 08:00 EST one business day before the start date of the outage. Outages that are “Advanced Approved” by the IESO will be used by all the calculation engines to determine market results. During End-to-End testing, IESO Operators are not required to apply final approval, nor are Market Participants required to implement their outages in the tools, since the calculation engines will automatically consider all outages that are in the “Advanced Approved” state using the Planned Start and Planned End dates submitted.

More details about this change can be found in [Market Rules Chapter 5](#) and [Market Manual 7.3](#).

## 5.3 MRP Market Information Management (MIM) System and MRP Energy Market Interface (EMI)

Most test cases that Market Participants will execute during End-to-End Testing will begin with the submission of bids and offers to the Market Information Management system either through EMI or web services. Like Market Trials, Market Participants will have access to the following dispatch data forms:

- Daily Dispatch Data (DDD),
- Real-Time Energy Market (RTEM),
- Forebay,
- Operating Reserve (OR), and
- Schedules.

During End-to-End Testing, the IESO systems will evaluate data submitted by Market Participants using the same evaluations as those that will take place under the renewed market. During this test phase, the submission deadlines and mandatory and restricted windows for the Day-Ahead Market and Real-Time Market will be enforced. Market Participants will be able to see how their bids and offers flow and are processed by the Day-Ahead Market, Pre-Dispatch (PD), and Real-Time calculation engines respectively. Depending on the dispatch data submitted by Market Participants, and the market and environmental conditions applied in the Sandbox environment (refer to [Section 4](#) for more details), bids and offers may be subject to mitigation as part of the ex-ante Market Power Mitigation process of the DAM and PD calculation engine runs.

To ensure that market transactions in the Sandbox environment closely reflect the volume of transactions in Production today, the IESO will enter standing bids and offers for resources of Market Participants who opted not to participate in End-to-End Testing. If Market Participants engage in testing at a later time, they are reminded to update these standing bids and offers to reflect their own dispatch data submissions. Market Participants should not delete these standing bids and offers.

## 5.4 MRP Dispatch Service

During Market Trials, Market Participants received dispatch instructions and commitment notifications for a subset of their resources to verify successful data transmission to and from the Dispatch Service System. These instructions and notifications were generated using a manual script.

In this test phase, the IESO will not be using this manual script. Market Participants will receive dispatch instructions and commitment notifications that are generated directly from the IESO's Dispatch Scheduling and Optimization (DSO) process in accordance with the approved market rules and manuals for the renewed market. The resources that are dispatched or committed by the system will depend on the bids and offers of other Market Participants in the Sandbox environment and which resources are determined to be most economical by the DSO.

## 5.5 Market and System Reports from the IESO Reports Site

Market Participants will be able to access public and confidential reports. The list of reports that will be available for testing can be found in [Appendix 3](#).

Market Participants will be able to download and test the new and updated reports being introduced by MRP. To help participants focus on the operational and settlement reports that are changing and are part of the bid-to-bill process, some reports will not be generated during this test phase. This includes:

- Unmodified reports that will remain unchanged after the launch of the renewed market, such as the Transmission Facility Outage Limits Report (Day 0 to 2) and the Transmission Facility Outage Limits Report (Days 3 to 34),
- annual reports that are not part of the bid-to-bill process, such as the *Annual Virtual Transaction Price Delta Report*,
- new reports that require extensive historical data, such as the *Daily Virtual Transaction Price Delta Report*, and
- The *Intertie Economic Withholding Monthly Summary Report* and the *Physical Withholding Monthly Summary Report*, which will not contain any information as ex-post mitigation assessments for physical and economic withholding will not be performed during End-to-End Testing.

Market Participants should use the sample files available on the [MRP Technical Reference Materials](#) webpage to test new and updated reports that will not be published as part of End-to-End Testing.

Market and system reports in scope for this test phase will be available in the Sandbox IESO Reports Site according to their standard publishing timelines and frequency. The information contained in the reports will be based on market transactions in the Sandbox environment.

With the introduction of the new Market Power Mitigation framework, some of these reports will use reference level and reference quantity data as input. Market Participants who received their PV reports and have had their reference level data entered in Production Online IESO by January 9, 2025 will see this data reflected in their Sandbox operational reports at the beginning of the End-to-End Testing phase. Market Participants who are in the process of reviewing their PV reports or have an outstanding IRP after January 9, 2025 will still be able to receive Sandbox operational reports. However, the initial reports will be based on placeholder IESO-determined reference level data until the resource's actual Production data is copied into the Sandbox environment.

## 5.6 Settlement Statement and Data Files

The IESO will publish settlement statements and data files to support End-to-End Testing. These files will be produced for the physical market only and will reflect how Market Participants transact in the Sandbox environment. Capacity Auction participants will receive settlement statements during End-to-End Testing.

Preliminary, final, and recalculated settlement statements will be provided to Market Participants using different trade dates, and all settlement statements will be accompanied by their corresponding data files. To provide Market Participants an opportunity to test as early as possible, the IESO will be advancing the timelines to publish these statements during End-to-End Testing:

- Preliminary settlement statements (PSS) will be published *6 business days* after each trade date. The first PSS will be available on **January 28, 2025**.
- Final settlement statements (FSS) will be published *5 business days* after each PSS. The first FSS will be available on **February 4, 2025**. The FSS will include monthly charges based on the trade dates available during End-to-End Testing.
- A Recalculated (RCSS) settlement statement will be published *16 business days* after the last day of the month.
- The trade dates that will be used for these settlement statements are those dates that fall within the period of End-to-End testing, which is from January 20, 2025 to March 26 2025.

Similar to the current schedule in Production, the IESO will only publish settlement statements during business days. Given that the trade dates in these settlement statements will be different, Market Participants are provided an opportunity to verify transactions that only appear at the end of the month.

The [Settlement Schedule for the End-to-End Testing Phase](#) can be found under the End-to-End Testing section of the [Market Participant Testing](#) webpage. This Excel file outlines when settlement statements will be published for specific trade dates during the End-to-End Testing phase.

### 5.6.1 Measurement Data

The IESO will create the measurement data that will be used to produce the preliminary settlement statements for End-to-End Testing. Market Participants who, in the current market, opted to receive measurement data as part of their data files will be able to view this information once the preliminary statements are published on January 28, 2025. Participants who are not currently set up to receive measurement data can opt-in for End-to-End Testing and can do so by submitting a request to [IESO Customer Relations](#) by **December 31, 2024**. Refer to [MRP Market Manual 0.5.7](#) Section 3.3 for more details about this process.

Market Participants will be able to modify their measurement data to influence the outcomes they wish to see in their settlement statements. The IESO will provide instructions and a template for submitting updated measurement data via IESO Workspaces in Q1 2025. Market Participants will be given until the Friday of each testing week to submit measurement data. If submitted by Friday, this data will be updated in the IESO's settlement system on Monday of the following week and will be reflected on the participant's settlement statement and data files onward.

**Note:** The IESO will not republish settlement statement and data files that were created before the Market Participant submitted the updated measurement data to be applied in the Sandbox environment.

### 5.6.2 Changes in the Settlement Statement and Data Files

The settlement statement and data files that will be produced during End-to-End Testing will reflect the approved design of the renewed market. This includes (but is not limited to):

- two-settlement transactions that demonstrate how charges are reconciled between the Day-Ahead Market (DAM) and Real-Time Market (RTM),
- the new price basis with the introduction of locational marginal prices (LMP) and the Ontario Zonal Price (OZP),
- any mitigated transactions from the ex-ante Market Power Mitigation (MPM) process,
- any Make-Whole Payments (MWP) that will be issued if a resource is either "scheduled up" to produce more energy than is economic at the LMP (incurring an operating cost loss) or is "scheduled down" to produce less energy than is economic at the LMP (incurring an opportunity cost),
- the new and updated charge types in Issue 82.4 of the [List of IESO Charge Types and Equations](#), and
- the updated format of settlement statement and data files.

As indicated in [Section 2.2](#), ex-post mitigation assessments for physical and economic withholding will not be performed during End-to-End Testing. Market Participants who wish to conduct exploratory testing on charge types related to ex-post mitigation will be able to do so using the generic sample settlement statements that are posted on the [MRP Settlement Reference Materials](#) webpage.

### 5.6.3 Settlement Workflows in Online IESO Sandbox

Market Participants will have access to settlement-related forms in Online IESO Sandbox. However, the assessment and processing of these workflows is out of scope of End-to-End Testing.

#### 5.6.3.1 Fuel Cost Compensation Form

Market Participants will be able to test their ability to submit the Fuel Cost Compensation Form in Online IESO Sandbox. However, the IESO will not process the submitted data and the related charges will not be included in the participants' settlement statements. Related charges are available in the generic sample settlement statements, which are posted on the [MRP Settlement Reference Materials](#) webpage.

#### 5.6.3.2 Notice of Disagreement (NOD) Workflows

Market Participants will be able to perform a functional test of the Notice of Disagreement (NOD) process during End-to-End Testing. For example, Market Participants will be able to submit NODs for new charge types and receive confirmation that the form was submitted successfully. However, the assessment and resolution of these NODs is not in scope of End-To-End testing and will not be reflected in the settlement statements that are published during this period.

## 6. Scenarios requiring IESO-Market Participant Communication during End-to-End Testing

Several scenarios that will be tested during End-to-End Testing would typically be triggered and discussed via a phone call to the Control Room in real-time during actual operations. During End-to-End Testing, the IESO will **not** be receiving or transmitting test scenario details for these scenarios via a phone call but using a general mailbox instead.

[Appendix 6](#) provides a list of scenarios that will require Market Participants to communicate details via email, the type of information the IESO will require from Market Participants, and timelines on when the information should be submitted.

If Market Participants wish to test the scenarios listed in [Appendix 6](#), Market Participants are to submit the necessary details for applicable scenarios to [e2emarkettrial@ieso.ca](mailto:e2emarkettrial@ieso.ca) in advance of the deadlines listed in [Appendix 6](#). Please note that this mailbox should **only** be used by Market Participants to test the scenarios listed in [Appendix 6](#). Market Participants are still required to submit defects using qTest or the Issue Log Template. Refer to [Section 12. IESO Support and Communication](#) for more information.



## 7. Resources to be tested for Narrow Constrained Area (NCA) mitigation condition

Market Participants will be able to test ex-ante mitigation and settlement mitigation associated with NCA conditions during End-to-End Testing. As communicated during the November 20, 2024 MRP Stakeholder Engagement meeting, Market Participants were requested to provide a list of registered resources that they would like to test for the NCA mitigation condition by December 4, 2024. Market Participants who missed this deadline should send an email to the Market Renewal mailbox at [market.renewal@ieso.ca](mailto:market.renewal@ieso.ca) before the start of End-to-End Testing to determine which additional resources can be accommodated to test the NCA mitigation condition.

Please note that Market Participants will not be able to test the Dynamic Constrained Area (DCA) mitigation condition during End-to-End Testing as the DCA thresholds and mitigation outcomes will be the same as NCA.

## 8. End-to-End Testing Schedule

Table 1 of this section lists the target dates of key activities that have been scheduled during the End-to-End Testing Phase.

The IESO will kick-off End-to-End Testing with a meeting on **January 13, 2025**, providing Market Participants an overview of the test phase, the testing schedule, and a high-level description of the test cases they will be expected to execute during this period.

The IESO will also host four Q&A sessions with Market Participants to provide updates on common issues reported. In these sessions, the IESO will:

- provide status updates on common issues raised and system defects identified,
- explain how these issues have been resolved or clarified, and
- offer participants the opportunity to ask questions about End-to-End Testing.

End-to-End Testing will be paused from **February 28, 2025 to March 7, 2025** to allow the IESO to complete final preparations for the launch cutover. The IESO recommends Market Participants do not conduct End-to-End Testing during this period as the systems may not operate as expected due to the internal preparations that the IESO will be undertaking at that time. Market Participants can use this timeframe to address any issues in their systems before End-to-End Testing resumes on **March 10, 2025 and** continue to run until **March 26, 2025**. The IESO will share more details on cutover testing with Market Participants in Q1 2025.

A wrap-up meeting is scheduled on **April 4, 2025** where the IESO will review the outcomes of the End-To-End testing phase. The IESO will present lessons learned during this test phase; what system or documentation-related issues have been or will be corrected; as well as informing Market Participants of any open defects that will persist after MRP Go-Live.



Market Participants will be able to register for these sessions via the [Implementation Engagement](#) section of the IESO’s Market Renewal webpage.

**Table 1 | End-to-End Testing Schedule of Activities and Events**

Activity	Target Date
Release of Test Cases and Issue Log Template for Market Participants	Starting on the week of January 6, 2025
Kick-off Meeting for End-to-End Testing Phase	January 13, 2025
Start Date of End-to-End Testing	January 20, 2025
Live Q&A Sessions with IESO subject matter experts	
• Q&A Session 1 for Market Participants	February 4, 2025
• Q&A Session 2 for Market Participants	February 18, 2025
• Q&A Session 3 for Market Participants	March 4, 2025
• Q&A Session 4 for Market Participants	March 18, 2025
End-to-End Testing is paused for Internal IESO Cutover Preparations	February 28, 2025 to March 7, 2025
End Date of End-to-End Testing	March 26, 2025
Wrap-up Meeting for End-to-End Testing	April 4, 2025

## 9. Exploratory Testing

Market Participants will have the opportunity to develop and execute their own tests across all the applications that are in scope for End-to-End Testing. This approach allows Market Participants to execute tests beyond the structured test cases provided by the IESO.

To support this, a folder labelled “Exploratory Testing” is available in qTest. If issues or unexpected behaviours are identified, Market Participants should use this folder to inform the IESO of the scenario they tested, the steps they performed that led to the issue or unexpected behaviour in the application, and to flag those issues as defects that require further investigation by the IESO. Market Participants should be as detailed as possible in their documentation to assist the IESO in recreating the issue.

A quick take titled, "[Quick Take: Test Case Creation and Execution for Exploratory Testing in qTest](#)" is available on the [MRP Market Participant Testing](#) page. This document provides an overview of how Market Participants can use qTest to record the steps taken and to log the results of the exploratory tests they performed in these applications.

## 10. Accessing Test Cases and Submitting Results to the IESO

### 10.1 How to Access Test Cases during End-to-End Testing

Market Participants will be able to access their test cases through the following channels:

#### 1. qTest (recommended)

This is the IESO's official test case management tool. Market Participants will be able to view their assigned test cases, log issues they encounter, and record their execution and results so that the IESO can monitor their progress during End-to-End Testing.

To gain access to qTest, Market Participants should email [IESO Customer Relations](#) of their intent to participate in End-to-End testing and submit a Form of Acknowledgment and Undertaking as part of their request. Details are provided in Section 3 of the [MRP Market Participant Test Plan](#).

#### 2. End-to-End Testing - Issue Log Template

Market Participants can also record their test results manually using an Issue Log Template. This file will be posted on the [MRP Market Participant Testing](#) webpage starting on **January 6, 2025**.

Market Participants who opt out of using qTest should send their Issue Log Template to the [IESO Customer Relations](#) mailbox with the subject line: "MRP Market Participant Test Results for End-to-End Testing".

Due to the manual processing of these files, Market Participants may experience delays in receiving updates and/or troubleshooting support from the IESO.

### 10.2 Assigned Test Cases for Market Participants

Test cases will be loaded in each Market Participant qTest folder. The test cases that are assigned for each Market Participant will be based on their organization's participation type(s). The participation types that will be used to organize the test cases are:

- Dispatchable Generators
- Energy Storage Providers
- Self-Scheduling Generators
- Dispatchable Loads

- Non-Dispatchable Loads
- Price Responsive Loads
- Intertie Traders
- Virtual Traders
- Transmitters
- Capacity Market Participants

The test cases that are being developed for End-to-End Testing will be based on key business processes that are introduced and updated by MRP and input from stakeholders. Test cases are being assessed and developed for the following business processes:

- Day-Ahead Market (DAM) Failure
- Operating Reserve (OR) Activation
- 1-Day Advance Approval Outages
- Generator Offer Guarantee (GOG) Commitments
- CRO (Control Room Operator) Constraints
- OR Clawback
- OR Shortfall (Short on Operating Reserves supply)
- Ex-ante Mitigation
- Financial Reference Levels (FRL) Submissions in Online IESO
- Capacity Flag – Import/Export
- HDR Activation
- Curtailment of DAM scheduled intertie transactions
- Two-Settlement Process
- Re-Settlement Process
- Settlement Mitigation: Make Whole Payment
- Notice of Disagreements (NODs)
- Major Outage – EW Tie Breaking

Market Participants who represent multiple participation types will be assigned test cases that are applicable for each type. For example, Market Participants who represent both dispatchable generators and intertie traders will see the test cases for both segments.

Similarly, Market Participants will have access to test cases for all the resource types that belong under their participation type. For example, a wholesale consumer will have visibility to the test cases that were created for both dispatchable loads and non-dispatchable loads.

Market Participants may find test cases that are not applicable to their organization in their respective project folders. Market Participants should update the status of these test cases to “Not Applicable.” This will inform the IESO that they will not be executing these test cases and should therefore be excluded from their organization’s testing progress.

If test cases are missing from their project folders, Market Participants should contact [IESO Customer Relations](#) for further assistance. The IESO will work with these organizations to ensure that the missing test cases are loaded in their qTest folders.

## 10.3 Reporting of Issues and Re-execution of Test Cases

### 10.3.1 Submitting Issues

Market Participants will be able to report issues they uncover through qTest or using the issue log template. All issues reported will be logged as defects in qTest.

Instructions on how to submit defects via qTest can be found in the [Quick Take: Submission of Test Case Results and Defects in qTest](#).

### 10.3.2 Resolving Submitted Issues

Issues that have been investigated and addressed will be closed by the IESO. This includes system issues that have been corrected and retested successfully by Market Participants; issues that are resolved by documentation updates; and records that were deemed as non-issues as it was addressed by clarifying the design of the market rules and manuals that have been implemented in the IESO’s systems.

During this test phase, the IESO will also begin to close any defects that remain open for more than 10 business days without a response from the Market Participant. When an issue is closed due to lack of response, a notification will be sent via qTest to inform the Market Participant that the defect has been closed.

If Market Participants wish to re-open a closed issue, they can do so by updating its status in qTest to “Re-Opened.” If Market Participants are using the Issue Log Template, they can notify the IESO to keep the investigation open by emailing [IESO Customer Relations Team](#) with the defect ID that needs to remain active.

### 10.3.3 Defect (Issue) Prioritization

In qTest, Market Participants communicate the priority of their submitted issue to the IESO using the “Priority” drop-down menu. When the IESO reviews the issue, it will assign its own priority based on its assessed risk and impact to the IESO systems and business processes. Starting in End-to-End Testing, the IESO will update the “Priority” drop-down menu if it differs from what Market Participants submitted based on its assessment of the issue. Table 2 lists the IESO’s classification of defect priorities and their description.

**Table 2 | Classification of Defect Priorities**

Priority	Description
Critical	The defect will result in the failure of an IESO system(s) and will prevent the IESO from executing the applicable business process(es). The defect <b>must</b> be resolved prior to MRP Go Live.
High	The defect will result in the failure of a functional component of the IESO system(s), and no workarounds exist. A workaround needs to be developed that will have a material impact on the IESO's business process(es). The defect <b>should</b> be resolved prior to MRP Go Live.
Medium	The defect will result in the failure of a functional component of IESO system(s). However, a workaround exists that will yield a desired result, and it does not have a material impact on the IESO's business process(es). The IESO will target to resolve the defect prior to MRP Go-Live. If this target cannot be achieved, the IESO will communicate to Market Participants if and/or when the defect will be resolved in a future deployment.
Low	The defect does not result in the failure of a functional component and does not affect the execution of IESO business process(es). The IESO will communicate to Market Participants if the defect will be resolved in a future deployment or rationale as to why the defect will not be resolved.

### 10.3.4 Re-execution of Test Cases

Market Participants will be notified by the IESO when applicable test cases are ready to be re-tested. If using qTest, Market Participants will receive a notification from the test case management tool when the status has been updated and/or a comment has been added to the defect record. Alternatively, Market Participants who submit their issues using the issue log template will be contacted by their business advisor via email if additional information is required or if a fix has been implemented. **To ensure that your organization receives timely support, Market Participants are highly encouraged to use qTest during this test phase.**

Market Participants are responsible for performing a re-test on their test cases to verify that the fix on their issues was successful. Market Participants can confirm via qTest or by emailing their business advisor. If the recommended solution was acceptable, Market Participants are reminded to mark the overall status of the test case as "Passed."

## 10.4 Submission Deadline of Test Cases Results

Market Participants should complete their assigned test cases and submit their test results to the IESO by **March 26, 2025**. The IESO recommends for Market Participants to execute their test cases as early as possible to ensure that they can address system issues on their end and to re-run test cases that have been flagged for re-testing prior to the closure of the End-to-End Testing phase.

## 11. Availability of the Sandbox Environment and Applications

The Sandbox systems for MRP EMI, MRP MIM, MRP Dispatch Service, OCSS, IESO Reports, and Online IESO will be available 24/7 during End-to-End Testing. However, there may be instances where these applications become unavailable due to scheduled security updates, patches, and/or application and infrastructure upgrades.

For scheduled outages, Market Participants should review the release notes under the [IT Release Schedule](#) and the [Planned IT Outages](#) page to be informed of when and how long these Sandbox applications will be out of service.

For unplanned outages, Market Participants will be informed via an email to all MRP Contacts. The outage will also be posted on the [Planned IT Outages](#) to notify other stakeholders. Once the Sandbox applications for MRP EMI, MRP MIM, MRP Dispatch Service, OCSS, IESO Reports, and/or Online IESO have returned to their regular availability, a follow-up communication will be sent to all MRP Contacts from the IESO's Market Renewal mailbox.

## 12. IESO Support and Communication

General MRP enquiries and feedback should continue to be submitted to the IESO Customer Relations mailbox at [IESOCustomerRelations@ieso.ca](mailto:IESOCustomerRelations@ieso.ca).

To ensure that Market Participants receive dedicated and timely support during End-to-End Testing, the IESO will communicate to testers through the following channels:

- qTest: Market Participants will receive an email from the test case management tool when comments are added under their defect and test case records, and
- emails from the MRP Business Advisors: this communication channel will be used for participants who did not request access to qTest but submitted test results and issues to the IESO manually.

Questions and technical support will be addressed during business hours (Monday to Friday from 9:00 AM EPT to 5:00 PM EPT).

The Market Renewal Program also informs stakeholders of MRP-related updates and reminders for important events through its dedicated newsletter and direct emails to all MRP contacts.

# 13. Additional Resources to Support Market Participants During Testing

## Market Information Management System

- [XSD](#)
- [WSDL](#)
- [MIM Web Services Toolkit \(MWT\)](#) and [User Guide](#)
- [MIM Sample Request and Response Files](#)

## Dispatch Service System:

- [Dispatch Service Web Service Design Specifications \(SPEC-154\)](#)
- [Dispatch Notification Service Web Service Design Specifications \(SPEC-155\)](#)

## Market and System Reports:

- Schema and sample files for new and updated reports that are posted under the [MRP Technical Reference Materials](#) webpage

## Settlement Reference Materials:

- [List of Charge Types and Equations](#)
- [Format Specifications for Settlement Statement Files and Data Files](#)
- [MRP Mapping Summary of Charge Types for all MPs](#)
- Sample Settlement Statements and Data Files
  - [Dispatchable Generators \(includes pseudo units and non-pseudo units\)](#)
  - [Non-Dispatchable Generators](#)
  - [Dispatchable and Price Responsive Loads](#)
  - [Non Dispatchable Loads and LDCs](#)
  - [Intertie Traders](#)
  - [Virtual Traders](#)
  - [List of Sample Settlement Statements by Participant Type](#)
  - [Non-Dispatchable Loads](#)

## **MRP Market Participant Testing Materials**

### **Guide to IESO Workspaces**

### **IESO Gateway User Guide**

### **Settlement Schedule for the End-to-End Testing Phase**

# Appendix 1: Market and Environmental Conditions in the Sandbox Environment

Week 1 (Normal System Demand)	January 20, 2025	January 21, 2025	January 22, 2025	January 23, 2025	January 24, 2025
	S17-GOG Commitment Advancements and Extensions				
	S9 - Fuel Cost Compensation Form				
	S1-Financial Reference Level (FRL) Change Request				
		S21-SEAL Constraint			
	S11 - 1-Day Advance Approval Outage				
Week 2 (Normal System Demand)	January 27, 2025	January 28, 2025	January 29, 2025	January 30, 2025	January 31, 2025
	S17-GOG Commitment Advancements and Extensions				
	S1-Financial Reference Level (FRL) Change Request				
	S9 - Fuel Cost Compensation Form				
		S4-Notice of Disagreement (NOD)			
	S12 - Hourly Demand Response - HDR Activation				
		S13-Operating Reserve (OR) Activation			
	S18-GOG Commitment withdrawn by MP with more than 4 hours advance notice				
S19-GOG Commitment withdrawn by MP with less than 4 hours advance notice					
Week 3 (Normal System Demand)	February 3, 2025	February 4, 2025	February 5, 2025	February 6, 2025	February 7, 2025
	S2 - DAM Failure				
	S1-Financial Reference Level (FRL) Change Request				
	S17-GOG Commitment Advancements and Extensions				
	S9 - Fuel Cost Compensation Form				
	S4-Notice of Disagreement (NOD)				
	S16-GOG Commitment Terminated by the IESO				
		S22-MPM Global Threshold			
Week 4 (High System Demand)	February 10, 2025	February 11, 2025	February 12, 2025	February 13, 2025	February 14, 2025
		S17-GOG Commitment Advancements and Extensions			
		S1-Financial Reference Level (FRL) Change Request			
		S9 - Fuel Cost Compensation Form			
Week 5 (High System Demand)	February 17, 2025	February 18, 2025	February 19, 2025	February 20, 2025	February 21, 2025
	Family Day (Stat Holiday)	S17-GOG Commitment Advancements and Extensions			
		S1-Financial Reference Level (FRL) Change Request			
		S9 - Fuel Cost Compensation Form			
		S4-Notice of Disagreement (NOD)			
			S14-OR Shortfall		
Week 6 (Low System Demand)	February 24, 2025	February 25, 2025	February 26, 2025	February 27, 2025	February 28, 2025
	S17-GOG Commitment Advancements and Extensions				
	S1-Financial Reference Level (FRL) Change Request				
	S9 - Fuel Cost Compensation Form				
	S4-Notice of Disagreement (NOD)				
	S23-Major Outage -EW Tie Binding				
		S8-Intertie Curtailment			
		S26-Capacity Flag - Export/Import			



Week 7 End-to-End testing pause (for IESO Internal Cutover preparation)*	March 3, 2025	March 4, 2025	March 5, 2025	March 6, 2025	March 7, 2025
Week 8 (To be determined (TBD))	March 10, 2025	March 11, 2025	March 12, 2025	March 13, 2025	March 14, 2025
					S27 - Resettlement Statement
Week 9 (TBD)	March 17, 2025	March 18, 2025	March 19, 2025	March 20, 2025	March 21, 2025
Week 10 (TBD)	March 24, 2024	March 25, 2024	March 26, 2024		

\* End-to-End Testing will be paused from **February 28, 2025 to March 7, 2025** to allow the IESO to complete final preparations for the launch cutover. The IESO recommends Market Participants do not conduct End-to-End Testing during this period as the systems may not operate as expected due to the internal preparations that the IESO will be undertaking at that time. Market Participants can use this timeframe to address any issues in their systems before End-to-End Testing resumes on **March 10, 2025 and** continue to run until **March 26, 2025**. The IESO will share more details on cutover testing with Market Participants in Q1 2025.

## Appendix 2: List of Registration Attributes in the Production Copy

The IESO will copy the data that supports the requirements defined in [MRP Market Manual 0.1.5](#) Sections 3.2 to 3.6 from Production to Sandbox.

This includes, but is not limited to:

1. Resource attributes, including market eligibility
2. Facility, equipment and resource technical relationships
3. Pseudo-unit to physical unit relationships
4. Cascade group to forebay to resource relationships
5. Virtual transaction resources
6. Boundary Entity resources

The IESO will not copy the data that supports the requirements defined in [MRP Market Manual 0.1.5](#) Section 2 (details under the Authorize Market and Program Participation process), Section 3.1 (roles, responsibilities, and relationships under the Register Equipment process), and Appendix A (the organization's contact roles) from Production to Sandbox.

## Appendix 3: List of In-Scope IESO Reports for End-to-End Testing

**Table 3 | Operational and Settlement reports for End-to-End Testing**

#	Report Name	Public/ Confidential
1	Adequacy Report	Public
2	Day-Ahead Constraints Shadow Prices	Public
3	Day-Ahead Hourly Energy LMP	Public
4	Day-Ahead Hourly Virtual Zonal Energy Price	Public
5	Day-Ahead Hourly Intertie Energy LMP	Public
6	Day-Ahead Hourly Intertie Operating Reserve LMP	Public
7	Day-Ahead Hourly Ontario Zonal Energy Price	Public
8	Day-Ahead Hourly Operating Reserve LMP	Public
9	Day-Ahead Area Operating Reserve Shortfall Report	Public
10	Day-Ahead Area Reserve Constraints Report	Public
11	Pre-DAM Area Reserve Constraints Report	Public
12	Day-Ahead Commitments	Confidential
13	Day-Ahead Totals Report	Public
14	Day-Ahead Intertie Scheduling Limits Report	Public
15	Day-Ahead Schedule	Confidential
16	Day-Ahead Virtual Transactions (Total)	Public
17	Demand Response Standby	Confidential
18	5-Minute Zonal Demand Report (Ten Electrical Zones)	Public
19	Day-Ahead Pseudo-Unit Computed Values	Confidential
20	Dispatch Data Report for Day-Ahead Scheduling Process	Confidential

#	Report Name	Public/ Confidential
21	Dispatch Data Report for Real Time Scheduling Processes for Resources	Confidential
22	Dispatch Data Report for Real Time Scheduling Processes for Forebays	Confidential
23	Predispatch Pseudo-Unit Computed Values	Confidential
24	Realtime Pseudo-Unit Computed Values	Confidential
25	Day-Ahead Market Financial Reference Level Values Report	Confidential
26	Day-Ahead Market Global Market Power Conditions for Energy Summary	Public
27	Day-Ahead Market Reference Quantity Values Report	Confidential
28	Real-Time Market Global Market Power Conditions for Energy Summary	Public
29	Real-Time Market Financial Reference Level Values Report	Confidential
30	Real-Time Market Reference Quantity Values Report	Confidential
31	Day-Ahead Market Dynamic Constrained Areas Report	Public
32	Economic Withholding Monthly Summary Report	Public
33	Narrow Constrained Areas Report	Public
34	Real-Time Market Dynamic Constrained Areas Report	Public
35	Predispatch Hourly Energy LMP Report	Public
36	Predispatch Hourly Virtual Zonal Energy Price	Public
37	Predispatch Hourly Intertie Energy LMP	Public
38	Predispatch Hourly Intertie Operating Reserve LMP	Public
39	Predispatch Hourly Ontario Zonal Energy Price Report	Public
40	Predispatch Hourly Operating Reserve LMP	Public
41	Predispatch Schedules Report	Confidential
42	Predispatch Commitments Report	Confidential

#	Report Name	Public/ Confidential
43	Predispatch Totals	Public
44	Predispatch Intertie Transactions Schedule and GOG Eligible Extensions Reports	Confidential
45	Predispatch GOG-eligible Unit Inferred State Report	Confidential
46	Customer Energy Summary Report	Confidential
47	Realtime 5-min Energy LMP Report	Public
48	Realtime 5-Min Virtual Zonal Energy Price Report	Public
49	Realtime 5-min Intertie Energy LMP Report	Public
50	Realtime 5-min Intertie Operating Reserve LMP Report	Public
51	Realtime 5-min Ontario Zonal Energy Price Report	Public
52	Realtime 5-min Operating Reserve LMP Report	Public
53	Realtime Constraints Shadow Prices	Public
54	5-Minute Operating Reserve Schedule	Confidential
55	Predispatch Daily Energy Limit (DEL) Tracking	Confidential
56	Dispatch Advisory Report	Confidential
57	Predispatch Number of Starts Tracking	Confidential
58	Realtime Energy Dispatch	Confidential
59	5-Minute Energy Schedule	Confidential
60	Realtime Totals	Public
61	Realtime Operating Reserve Dispatch	Confidential
62	Realtime Energy and Operating Reserve Dispatch	Confidential
63	Daily Uplift	Public
64	Hourly and Monthly Charges	Public
65	Hourly Uplift Charges	Public
66	Intertie Offer Guarantee Charges 2002 to 20yy	Public

#	Report Name	Public/ Confidential
67	Realtime Intertie Offer Guarantee Settlement Details Report	Confidential
68	Load Forecast Deviation Adjustment Report	Public
69	Monthly Uplift	Public
70	Variable Generation Foregone Energy Calculation Inputs	Confidential
71	Weekly Market Summary Report	Public
72	Variable Generation Forecast by Resource Report	Confidential
73	Day-Ahead Security Constraints Report	Public
74	Dispatch Security Constraints Report	Public
75	Predispatch Security Constraints	Public
76	5-Minute Energy and Operating Reserve Schedule	Confidential
77	Pre-DAM Intertie Scheduling Limits Report	Public
78	Monthly Day-Ahead Historical Interface Schedules, Transmission Transfer Capability Report	Public
79	Realtime Market Operating Reserve Offer Report	Confidential
80	Day-Ahead Market Operating Reserve Offer Report	Confidential



## Appendix 4 : Settlement Schedule for the End-to-End Testing Phase

The [Settlement Schedule for the End-to-End Testing Phase](#) can be found under the End-to-End Testing section of the [Market Participant Testing](#) webpage. This Excel file outlines when settlement statements and data files will be published for specific trade dates during the End-to-End Testing phase.

## Appendix 5: Sandbox URLs for In-Scope Applications

**Table 5 | Sandbox Access for In-Scope Applications**

Application	New or Existing	URL Address
Online IESO (via GUI)	Existing	Via IESO Gateway: <a href="https://gateway-sbx.ieso.ca">https://gateway-sbx.ieso.ca</a> Direct link: <a href="https://onlinesandbox.ieso.ca">https://onlinesandbox.ieso.ca</a>
Outage Coordination and Scheduling System (OCSS) (via GUI)	Existing	<a href="https://gateway-sbx.ieso.ca">https://gateway-sbx.ieso.ca</a>
Outage Coordination and Scheduling System (OCSS) (via web services)	Existing	<a href="https://webservices-sandbox.ieso.ca/OCSS">https://webservices-sandbox.ieso.ca/OCSS</a>
MRP Energy Market Interface (EMI) (via GUI)	New	Via IESO Gateway: <a href="https://gateway-sbx.ieso.ca">https://gateway-sbx.ieso.ca</a> Direct link: <a href="https://emi-sandboxmrp.ieso.ca/">https://emi-sandboxmrp.ieso.ca/</a>
MRP Energy Market Interface (EMI) (via API or MWT Toolkit)	New	<a href="https://webservices-sandboxmrp.ieso.ca/emim">https://webservices-sandboxmrp.ieso.ca/emim</a>
MRP Dispatch Services (via GUI)	New	Via IESO Gateway: <a href="https://gateway-sbx.ieso.ca">https://gateway-sbx.ieso.ca</a> Direct link: <a href="https://dispatchui-sandboxmrp.ieso.ca">https://dispatchui-sandboxmrp.ieso.ca</a>
MRP Dispatch Services (via API)	New	<a href="https://webservices-sandboxmrp.ieso.ca/dispatches">https://webservices-sandboxmrp.ieso.ca/dispatches</a>
IESO Reports Site to access Public Reports (via GUI)	Existing	<a href="https://reports-public-sandbox.ieso.ca">https://reports-public-sandbox.ieso.ca</a>
IESO Reports Site to access Public and Confidential Reports (via API)	New	<a href="https://reports-sandbox.ieso.ca/api/v1.4/files?idp_id=ieso">https://reports-sandbox.ieso.ca/api/v1.4/files?idp_id=ieso</a>
IESO Reports Site to access Public and Confidential Reports (via SFTP)	Existing	<a href="https://reports-sandbox.ieso.ca">https://reports-sandbox.ieso.ca</a>



## Appendix 6: List of Scenarios requiring IESO-Market Participant Communications

**Table 6 | List of Scenarios requiring IESO-Market Participant Communications**

Scenario Name and Number	Scenario Description	Information required to be provided by Market Participants via Email	Deadline for Submission	Scenario Limitations
S5 – Make Whole Payment (MWP)	MPs can test settlement mitigation for resources with a reliability constraint.	1. Resource to be constrained with reliability constraint (REL, DARCMT, PDRCMT) 2. What timeframe would the constraints be applicable for (DAM and/or RT) 3. Whether to constrain up, down, or to a fixed value 4. Specific hour(s) if applicable	1 day in advance of trade date for RT-only constraints (2 days if to be included in DAM)	<ul style="list-style-type: none"><li>• Maximum of 10 resources can be submitted per Market Participant's organization</li><li>• Resource constraints will be in place for at least 15 minutes.</li></ul>

Scenario Name and Number	Scenario Description	Information required to be provided by Market Participants via Email	Deadline for Submission	Scenario Limitations
S7 - MPM	MPs can test the impact of market power mitigation on their resources.	<ol style="list-style-type: none"> <li>1. Resource to participate in R-Local test.</li> <li>2. Resource which Market Participants would like to be added to a NCA</li> </ol>	<p>For information #1, 2 business days in advance of trade date for DAM submission, 1 business day in advance of trade date for PD submission</p> <p>For information #2, please notify us by Friday January 31st 12:00 EST for week 3 testing, and Friday Feb 7<sup>th</sup> 12:00 EST for week 4 testing.</p>	<ul style="list-style-type: none"> <li>• Maximum of 10 resources can be submitted per Market Participant's organization</li> </ul>
S8 – Intertie Curtailment	MPs can test RT curtailments of transactions scheduled in DAM	<ol style="list-style-type: none"> <li>1. Resource/transaction to have curtailed</li> <li>2. Mid-hour or full-hour curtailment</li> <li>3. Specific hour(s) if applicable</li> </ol>	1 day in advance of trade date	<ul style="list-style-type: none"> <li>• Maximum of 5 transactions can be submitted per Market Participant's organization</li> </ul>
S11 – 1-Day Advance Approval Outage	MPs can test the new 1-day advanced approval timelines.	<ol style="list-style-type: none"> <li>1. Outage slip entered</li> <li>2. Whether the MP wishes for the IESO to approve or reject the outage</li> </ol>	2 business days in advance of trade date by 10:00 EST	<ul style="list-style-type: none"> <li>• Maximum of 2 outage slips can be submitted per MP's organization</li> </ul>

Scenario Name and Number	Scenario Description	Information required to be provided by Market Participants via Email	Deadline for Submission	Scenario Limitations
S12 – Hourly Demand Response – HDR Activation	MPs can test their HDR commitments	1. Resource to be activated 2. Specific hour(s) if applicable	2 days in advance of trade date	<ul style="list-style-type: none"> <li>MPs should attempt to receive a standby/activation by submitting very economical dispatch data. If MPs fails to receive a standby in the DAM timeframe, the IESO can attempt to apply constraints (similar to testing process) to trigger an activation for the PD timeframe.</li> </ul>
S13 – Operating Reserve (OR) Activation	MPs can test to see if their resources are activated for OR and its impact on settlement	1. Resource(s) to activate for OR 2. Specific hour(s) if applicable	1 day in advance of trade date	<ul style="list-style-type: none"> <li>Maximum of 10 resources can be submitted per Market Participant's organization</li> <li>OR activations will be in place for at least 15 minutes</li> <li>Will require OR to be scheduled economically on the resource within the proposed test hours</li> </ul>

<b>Scenario Name and Number</b>	<b>Scenario Description</b>	<b>Information required to be provided by Market Participants via Email</b>	<b>Deadline for Submission</b>	<b>Scenario Limitations</b>
S16 – GOG Commitment Terminated by the IESO	MPs can test when their GOG commitments are terminated by the IESO.	1. Resource to have commitment terminated	1 day in advance of trade date	<ul style="list-style-type: none"> <li>Maximum of 2 resources can be submitted per Market Participants' organization.</li> </ul>
S18 - GOG Commitment withdrawn by MP with more than 4 hours advance notice	MPs can test when they withdraw their GOG commitment with more than 4 hours of advance notice.	1. Resource to have commitment withdrawn	1 day in advance of trade date	<ul style="list-style-type: none"> <li>Maximum of 2 resources can be submitted per Market Participants' organization.</li> </ul>
S19-GOG Commitment withdrawn by MP with less than 4 hours advance notice	MPs can test GOG commitment withdrawn by MP with less than 4 hours of advance notice	1. Resource to have commitment withdrawn	1 day in advance of trade date	<ul style="list-style-type: none"> <li>Maximum of 2 resources can be submitted per Market Participants' organization.</li> </ul>
S21 – SEAL Constraint	MPs can test their request for constraint due to SEAL.	1. Resource to be constrained 2. What timeframe would the constraints be applicable for (DAM and/or RT) 3. Whether to constrain up, down, or to a fixed value 4. Specific hour(s) if applicable	1 day in advance of trade date for RT-only constraints (2 days if to be included in DAM)	<ul style="list-style-type: none"> <li>Maximum of 10 resources per Market Participant's organization.</li> <li>Resource constraints will be in place for at least 15 minutes</li> </ul>

Scenario Name and Number	Scenario Description	Information required to be provided by Market Participants via Email	Deadline for Submission	Scenario Limitations
S26 – Capacity Flag – Export/Import	MPs can test the Capacity Transaction Flag results for Capacity exports.	1. Transaction to be called 2. Specific hour(s) if applicable	2 days in advance of trade date	<ul style="list-style-type: none"> <li>Maximum of 5 transactions per Market Participant's organization.</li> </ul>



**Independent Electricity  
System Operator**

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