# End-to-End Testing: Test Scenario 14 – Operating Reserve (OR) Shortfall

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#### 1. Introduction

This document provides an overview of **Test Scenario 14: Operating Reserve (OR) Shortfall** under the End-to-End Testing phase of the Market Renewal Program.

This document includes the following information:

- a short description of the test scenario as it relates to Market Rules Chapter 0.9 s.3.1,
- out of scope items and activities during this test execution,
- the resource and participation types that are recommended to execute this test scenario,
- · key dates for impacted Market Participants, and
- the test cases along with the steps that users will execute to verify this test scenario.

#### 2. Scenario Description

Market Participants with resources capable of participating in the operating reserve market will be able to test conditions where the system is short of operating reserve. The IESO will use one or multiple methods to place the system under an OR shortfall situation. These actions may include increasing OR requirement or limiting operating reserve areas or both.

Market Participants will verify the results of this scenario through how the resources are scheduled and how they were settled during the OR shortage condition.

#### 3. What is out of scope for this test scenario?

The following items are out scope in the execution of this test scenario:

 No additional notices (advisory notices, EEA announcements, etc.) will be issued during the shortage time frame

### 4. Impacted Participation Types

This test scenario is recommended for the following participation types:

- Dispatchable Generators,
- Dispatchable Loads,

- Dispatchable Electricity Storage Participants as a Load and as a Generator, and
- Intertie Traders

### 5. Key Dates for Market Participants

This scenario will be simulated under Week 5 of the End-to-End Testing Phase:

- This scenario will be simulated from **February 19**, **2025** to **February 20**, **2025** for the trade date **February 20**, **2025**.
- Market Participants will notice the impacts of this test scenario on the preliminary settlement statements and data files that are generated on February 28, 2025, and final settlement statements and data files that are generated on March 7, 2025 for the February 20, 2025 trade date.

### 6. Test Case(s) under Test Scenario 14

#### **Prerequisites:**

- 1. Valid login credentials for EMI/MIM, Online IESO, Reports site, Dispatch Services
- Daily Dispatch Data (DDD) (If the corresponding RTEM submission resource type is one of the following: Non-Quick Start (NQS) Other, Combustion Turbine (CT) Pseudo-Unit (PSU), Steam Turbine (ST) PSU, CT Non-PSU, ST Non-PSU) and Real-Time Energy Market data for the corresponding market participant, delivery date, resource, and hour must be present in the system.

Test Case S14-TC01 | All eligible resources are able to verify power system condition for OR shortfalls

| Test Step # | Test Step Description   | Test Step Expected Result   |
|-------------|---|---|
| 1           | Before the DAM Run, MP to open the Adequacy Report that is generated for the affected trade of this test case which is published around 09:00 EPT and located in the Adequacy3 folder of the IESO Public Sandbox Reports site | MP should be able to verify the increased OR requirements in the Adequacy report  |
| 2           | Before the DAM Run, MP to open the Pre-<br>DAM Area Reserve Constraints Report that is<br>published around 9:10 EPT which is located<br>in the PreDAAreaReserveConstraint folder of<br>the IESO Public Sandbox Reports site   | Market Participant (MP) should be<br>able to verify the reserve area<br>changes in the Pre-DAM Area Reserve<br>Constraints Report |
| 3           | MP submits Operating Reserve (OPRES) dispatch data through EMI or MIM in the RT_INITIAL window  | Dispatch data submission is processed successfully  |
| 4           | After the DA_RESTRICTED window, MP to open the latest Day Ahead Area Reserve Constraints Report which is located in the DAAreaReserveConst2 that is generated around 13:30 EPT folder of the IESO Public Sandbox Reports site | MP should be able to verify the reserve area changes in the Day Ahead Area Reserve Constraints Report                             |

| Test Step # | Test Step Description   | Test Step Expected Result   |
|-------------|---|---|
| 5           | After the DA_RESTRICTED window, MP to open the latest Adequacy Report which is published between 13:15 EPT and 15:15 EPT and located in the Adequacy3 folder of the IESO Public Sandbox Reports site        | MP should be able to verify the increased OR requirements in the Adequacy report  |
| 6           | After the DA_RESTRICTED window, MP to open the latest Day-Ahead Totals Report which is published between 13:15 EPT and 15:15 EPT and located in the DATotals folder of the IESO Public Sandbox Reports site | MP to verify the total OR schedule is less than the total OR requirement stated in the Post-DAM Adequacy report and there by indicating OR shortfall. |
| 7           | In the IESO Confidential Sandbox Reports site, MP to retrieve preliminary and final settlement statements and associated data files   | MP to verify generation and successful retrieval of preliminary and final statements, and associated data files.                                      |
| 8           | Review statement for applicable charges and calculations  | MP to verify that only applicable charges/payments are present in the settlement statements.  |
| 9           | Review statement for non-applicable charges and calculations  | MP to verify that all non-applicable charges/payments should not be present in the settlement statements.   |
| 10          | MP to review statements for calculation accuracy  | MP is able to verify that the charges/payments are accurately calculated.   |

### **Additional Resources**

• Market Rules Chapter 0.9 | Settlements and Billing

#### **Independent Electricity System Operator**

1600-120 Adelaide Street West Toronto, Ontario M5H 1T1

Phone: 905.403.6900 Toll-free: 1.888.448.7777

E-mail: <a href="mailto:customer.relations@ieso.ca">customer.relations@ieso.ca</a>

#### ieso.ca

@IESO\_Tweets

in <u>linkedin.com/company/IESO</u>

