
End-to-End Testing: Test Scenario 22 – Market Power Mitigation (MPM) Global Threshold

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1. Introduction

This document provides an overview of **Test Scenario 22: Market Power Mitigation (MPM) Global Threshold** 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 0.7 s.22.11 & Appendix 4.3.8 and Market Manual Part 0.14.1 s.4,
- 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 will be able to test the Energy Global Market Power (EGMP) under Market Power Mitigation. This will be performed in both the Day-Ahead Market (DAM) and Pre-dispatch(PD). The IESO Control Room Operator (CRO) will create an environment on the system that meets the conditions for global market power for energy. Market participants can then simulate and observe how their resources will behave on the system.

Market Participants will verify the results of this scenario through the settlement results and operational reports.

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

There are no out of scope steps in the execution of this test scenario.

4. Impacted Participation Types

This test scenario is recommended for the following participation types:

- Dispatchable Generators,
- Dispatchable Loads, and

- Dispatchable Electricity Storage Participants as a Load and as a Generator

5. Key Dates for Market Participants

This scenario will be simulated under Week 3 and Week 4 of the End-to-End Testing Phase:

- This scenario will be simulated anywhere between **February 4, 2025** to **February 5, 2025** for Normal Demand and between **February 12, 2025** to **February 14, 2025** for High Demand.
- Market Participants will notice the impact of this test scenario on the preliminary settlement statements and data files that are generated 6 business days after the trade date, and final settlement statements and data files that are generated 5 business days after the preliminary statement is issued.
- **An example:** Market Participants will notice the impact of this test scenario on the preliminary settlement statements and data files that are generated on **February 12, 2025**, and final settlement statements and data files that are generated on **February 20, 2025** for the **February 4, 2025** trade date. Market Participants can provide alternative measurement data from **February 13, 2025 to February 14, 2025** for this test scenario.

6. Test Case(s) under Test Scenario 22

Prerequisites:

1. Reference Level values exist in the system for the selected resource.
2. Valid login credentials for EMI/MIM, Online IESO, Reports site.
3. Condition needed to test Global Market Power for Operating Reserve: Submitted Resource's 10S/10N/30R LMP > \$15, where resource MAX reserve area is not binding.
4. Condition needed to test Energy Global Market Power: [IBP > \$100] AND [extCong is negative; OR NISL shadow price is negative]
5. DDD data (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 are present in the system.

Test Case S22-TC01 | All eligible resources are able to submit dispatch data for Mitigation of Operating Reserve Offer using Rglobal (Global Market Power for Operating Reserve) in the DAM timeframe

Test Step #	Test Step Description	Test Step Expected Result
1	MP submits Operating Reserve dispatch data through EMI or MIM in the RT_INITIAL window Note: Offer prices must be higher than the reference level plus the applicable conduct threshold.	Dispatch data submission is processed successfully
2	DAM engine runs and ex-ante mitigation is conducted for OR Offer for RGLOBAL (Global Market Power for Operating Reserve)	Submitted OR offers are replaced with reference levels for mitigated resources.

Test Step #	Test Step Description	Test Step Expected Result
3	Post DAM Run, navigate to the following the path below on the IESO Confidential Sandbox Reports site Your Files > private > DAScheduledEnergy2 > {MP_Name} Then, Open the latest xxxxxDAScheduledEnergy2xxxx.xml that is generated after the DA_RESTRICTED window (after the DAM completion)	MP is able to verify in the DAM Schedules Report that the mitigation decision is visible for the relevant hours Note: Mitigation results will only appear when impact test is failed. If impact test is passed, mitigation results will not be included in the report.
4	In the IESO Confidential Sandbox Reports Site, MP is able to download the preliminary and final settlement statements along with the data files for the affected trade date of this test case.	MP is able to download the preliminary and final settlement statements and associated data files from the IESO Confidential Sandbox Reports Site.
5	Review settlement statements for applicable charges and calculations.	Only applicable charges/payments are present in the settlement statements.
6	Review settlement statements for non-applicable charges and calculations.	Non-applicable charges/payments should not be present in the settlement statements.
7	Review settlement statements for calculation accuracy.	Charges/payments are calculated accurately.

Test Case S22-TC02 | All eligible resources are able to submit dispatch data for Mitigation of Operating Reserve Offer using Rglobal (Global Market Power for Operating Reserve) in the PD timeframe

Test Step #	Test Step Description	Test Step Expected Result
1	MP submits Operating Reserve dispatch data through EMI or MIM in the RT_INITIAL window Note: Offer prices must be higher than the reference level plus the applicable conduct threshold.	Dispatch data submission is processed successfully.

2	PD engine runs and ex-ante mitigation is conducted for OR Offer. The offer fails the conduct and impact test for RGLOBAL	Submitted OR offers are replaced with reference levels for mitigated resources.
3	Post two PD runs after the start of the RT_UNRESTRICTED2 window, navigate to the following the path below on the IESO Confidential Sandbox Reports site Your Files > private > PredispSchedules2 > {MP_Name} Then, Open the latest thexxxxPredispSchedules2xxx.xml that is generated.	MP is able to verify in the PD Schedules Report that the mitigation decision is visible for the relevant hours Note: Mitigation results will only appear when impact test is failed. If impact test is passed, mitigation results will not be included in the report.
4	RT engine runs	Mitigation decisions are carried forward into the RT timeframe
5	Post RT Runs of the relevant hour, navigate to the following the path below on the IESO Confidential Sandbox Reports site Your Files > private > ENGYOPRVRealtimeDispatch> {MP_Name} Then, Open the latest xxxENGYOPRVRealtimeDispatchxxx.xml.xml that is generated.	MP is able to verify in the report that the dispatch for the relevant hours is as expected.
6	Post RT Runs of the relevant hour, navigate to the following the path below on the IESO Confidential Sandbox Reports site Your Files > private > OPRVDispatch> {MP_Name} Then, Open the latest xxxOPRVDispatchxxx.xml.xml that is generated.	MP able to verify in the report that the dispatch for the relevant hours is as expected.
7	Post RT Runs of the relevant hour, Open the Realtime 5 Min Operating Reserve LMP Report that is located in the RealtimeEnergyLMP folder of the IESO Public Sandbox Reports site.	MP able to verify that the Realtime 5 Min Operating Reserve LMP report has generated the correct RT LMP as expected.
8	In the IESO Confidential Sandbox Reports Site, MP is able to download the preliminary and final settlement statements along with	MP is able to download the preliminary and final settlement statements and associated data files

	the data files for the affected trade date of this test case.	from the IESO Confidential Sandbox Reports Site.
9	Review settlement statements for applicable charges and calculations.	Only applicable charges/payments are present in the settlement statements.
10	Review settlement statements for non-applicable charges and calculations.	Non-applicable charges/payments should not be present in the settlement statements.
11	Review settlement statements for calculation accuracy.	Charges/payments are calculated accurately.

Test Case S22-TC03 | All eligible resources are able to verify ex-ante mitigation for global market power for Incremental Energy Offer using EGMP (Global Market Power for Energy) conditions in the DAM timeframe

Test Step #	Test Step Description	Test Step Expected Result
1	MP submits RTEM dispatch data through EMI or MIM in the RT_INITIAL window Note: Offer prices must be higher than the reference level plus the applicable conduct threshold.	Dispatch data submission is processed successfully.
2	DAM engine runs and ex-ante mitigation is conducted for Incremental Energy Offer using EGMP conditions.	Submitted Energy offers are replaced with reference levels for mitigated resources.
3	Post DAM Run, navigate to the following the path below on the IESO Confidential Sandbox Reports Site Your Files > private > DAScheduledEnergy2 > {MP_Name} Then, Open the latest xxxxxDAScheduledEnergy2xxxx.xml that is generated after the DA_RESTRICTED window (after the DAM completion)	MP is able to verify in the DAM Schedules Report that the mitigation decision is visible for the relevant hours Note: Mitigation results will only appear when impact test is failed. If impact test is passed, mitigation results will not be included in the report.

4	In the IESO Confidential Sandbox Reports Site, MP is able to download the preliminary and final settlement statements along with the data files for the affected trade date of this test case.	MP is able to download the preliminary and final settlement statements and associated data files from the IESO Confidential Sandbox Reports Site.
5	Review settlement statements for applicable charges and calculations.	Only applicable charges/payments are present in the settlement statements.
6	Review settlement statements for non-applicable charges and calculations.	Non-applicable charges/payments should not be present in the settlement statements.
7	Review settlement statements for calculation accuracy.	Charges/payments are calculated accurately.

Test Case S22-TC04 | All eligible resources are able to verify ex-ante mitigation for global market power for Incremental Energy Offer using EGMP (Global Market Power for Energy) conditions in the PD timeframe

Test Step #	Test Step Description	Test Step Expected Result
1	MP submits RTEM dispatch data through EMI or MIM in the RT_INITIAL window Note: Offer prices must be higher than the reference level plus the applicable conduct threshold.	Dispatch data submission is processed successfully
2	PD engine runs and ex-ante mitigation is conducted for Incremental Energy Offer using EGMP conditions. The offer fails the conduct and impact test.	Submitted Energy offers are replaced with reference levels for mitigated resources.
3	Post two PD runs after the start of the RT_UNRESTRICTED2 window, navigate to the following path below on the IESO Confidential Sandbox Reports site Your Files > private > PredispSchedules2 > {MP_Name} Then, Open the latest thexxxxxPredispSchedules2xxx.xml that is generated.	MP is able to verify in the PD Schedules Report that the mitigation decision is visible for the relevant hours Note: Mitigation results will only appear when impact test is failed. If impact test is passed, mitigation results will not be included in the report.

4	RT engine runs	Mitigation decisions are carried forward into the RT timeframe
5	Post RT Runs of the relevant hour, navigate to the following the path below on the IESO Confidential Sandbox Reports Site Your Files > private >ENGYOPRVRealtimeDispatch> {MP_Name} Then, Open the latest xxxENGYOPRVRealtimeDispatchxxx.xml.xml that is generated.	MP able to verify in the report that the dispatch for the relevant hours is as expected.
6	Post RT Runs of the relevant hour, Open the Real time 5 Min Energy LMP Report that is located in the RealtimeEnergyLMP folder of the IESO Public Sandbox Reports site.	MP able to verify that the Realtime 5 Min Energy LMP report has generated the correct RT LMP as expected.
7	In the IESO Confidential Sandbox Reports Site, MP is able to download the preliminary and final settlement statements along with the data files for the affected trade date of this test case.	MP is able to download the preliminary and final settlement statements and associated data files from the IESO Confidential Sandbox Reports Site.
8	Review settlement statements for applicable charges and calculations.	Only applicable charges/payments are present in the settlement statements.
9	Review settlement statements for non-applicable charges and calculations.	Non-applicable charges/payments should not be present in the settlement statements.
10	Review settlement statements for calculation accuracy.	Charges/payments are calculated accurately.



Additional Resources

- [Market Rules Chapter 0.7 | System Operations and Physical Markets](#)
- [Market Rules Chapter 0.7 Appendices – System Operations and Physical Markets](#)
- [Market Manual 0.14.1- Market Power Mitigation Procedures](#)

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