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Market Renewal Program (MRP): Lessons Learned from Connectivity and Cutover Test and Walkthrough of the Production Launch Activities

Maria GoManager – MRP External Readiness



Overview

In preparation for the launch of the renewed market on May 1, 2025, the IESO offered two cutover-specific testing activities for market participants:

- **Pre-Production Connectivity Testing** took place from March 17 to March 28, 2025. The purpose of this test was to ensure that participants could access the new and updated market-facing systems prior to the transition to the renewed market.
- **Cutover Testing** took place from March 31 to April 2, 2025. Its purpose was to verify that market participants can follow the cutover sequence in the prescribed time that is outlined in the MRP Readiness Plan for Market Renewal Launch (Table 3-1).

This presentation will cover issues that were identified by participants during the tests, lessons learned from these exercises, and a detailed walkthrough of the planned launch timeline from April 30 to May 8, 2025.

Summary of Participation

Pre-Production Connectivity Testing:

- 56 Market Participants participated in Pre-Production Connectivity Testing.
- 15 issues were reported during the testing period.
- All 15 issues were resolved before Cutover Testing started on March 31, 2025.

Cutover Testing:

- 86 Market Participants participated in Cutover Testing.
- 186 resources accepted dispatches from the IESO in the new Dispatch Service starting on April 1, 2025.
- 7 issues were reported by participants during this test. Only 2 remain open for investigation.



Issues and Observations by Market Participants During Cutover Testing



Reported Issues & Observations During Cutover Testing

Issue 1: A market participant reported not being able to see and/or select a resource in the Energy Market Interface (EMI).

Status: Resolved.

Issue 2: Old standing dispatch data was converted for physical bilateral transactions in the Market Information Management (MIM) system.

Status: Resolved.

Issue 3: Error code 505 was returned when a user attempted to access EMI with their user account.

• Status: Under Investigation. The IESO is unable to replicate this symptom and will monitor its EMI and MIM system to see if this is a system defect.

Issue 4: Some Real-Time Reports were unintentionally published to the IESO Reports site as the IESO continued to manually dispatch resources. For example, the *Predispatch Schedules Report* (PredispSchedules2) for HE02 and HE03. Participants who reported the issue were advised that the results in the report were not valid and should be disregarded.

Status: Resolved.



Reported Issues & Observations During Cutover Testing

Issue 5: A market participant reported that they did not receive the *Predispatch Intertie Transactions Schedule and GOG Eligible Extensions Report* (PredispIntertieSchedGOGExtension) for one of their resources.

Status: Resolved.

Issue 6: A market participant reported odd data for HE24 on the *Predispatch Hourly Ontario Zonal Energy Price Report* (PredispHourlyOntarioZonalPrice).

• Status: Resolved. Fix was implemented on April 10, 2025.

Issue 7: A market participant reported that the incorrect dispatch date appeared in the Dispatch Service user interface.

• Status: Under Investigation.



Additional Lessons Learned from Cutover Testing



Lessons Learned During Cutover Testing

- Market participants reported that the MRP Dispatch Services tile was not available on their IESO
 Gateway account in the Production environment. The tile was re-deployed as scheduled when
 automatic dispatch was re-enabled. Participants can expect the same behaviour on April 30, 2025, as
 part of the transition to the renewed market.
- Market participants who reported being unable to view the Real-Time Market Financial Reference
 Level Values reports were advised to refresh the IESO Reports site or to use another account (e.g., an
 API account) to log in. Participants should confirm that their user and system accounts have
 permission to view Operations Reports before April 30, 2025.
- Some market participants reported that the pre-dispatch reports were missing data for HE1. This is expected behaviour and was outlined in the <u>Cutover Test plan</u>: once the results (of the Pre-Dispatch and Real-Time Optimization sequences) are validated by the IESO, they will be published to Market Participants starting HE02. The same will occur on May 1, 2025 for the Market Renewal Launch.



Lessons Learned During Cutover Testing

- Several critical resources had missing dispatch data for the day-ahead market. Market participants are reminded to submit offers into the renewed market for the day-ahead timeframe.
- Market participants are reminded to submit identical dispatch data in both the legacy and renewed EMI/MIM systems on April 30. For clarity, identical dispatch data refers to total bid/offer capacity.
 Participants are also reminded that there are unique parameters in the renewed system, which are currently not available in the legacy system (e.g., forebay data). Participants are not expected to submit data for these new parameters.
- Market participants submitted dispatch data to the MRP Pre-Production and Sandbox systems before
 the Cutover test officially started. Participants are reminded to please wait until the Launch Start is
 communicated to submit dispatch data into the MRP Pre-Production environment.



Walkthrough of the Market Renewal Launch Timeline



Launch Plan Overview

Wed, April 30 Thu, May 1 Fri, May 2 Sat, May 3 to Tue, May 6 Wed, May 7 Thu, May 8 Day -1 Day 0 Day +7 Day +1 Day +2 to Day +5Day +6 Prudential MRP settlements **Advisory Notice** Launch start decision system, initial calculations MRP 1st Trade Date sent Real-Time and Day-Ahead made - MPs notified for Day 0, May 1 processes, confirming the Markets operating PSOs and Renewed Real-Time completion of the MPs enter dispatch data Monitorina Market in operation market transition **Notifications** Price Responsive DACP cancelled Available* Loads MPs submit In effect DAM dispatch data Legacy market stopped Virtual Traders begin Restriction Period Manual dispatch and authorization for Restriction price administration Legacy market continues to be settled process* Changes Ended during launch Restriction Period for Registration Changes (April 24 to May 7) MRP real-time market Launch systems activated **Completed MP Prudential System Unavailable** Prudential alternative monitoring and exposure mitigation methods



^{*} Virtual Traders are required to provide prudential support and be approved by the IESO prior to participating in the market

The descriptions of each step can be found in Table 3-1 of the <u>MRP Readiness Plan for Market Renewal Launch</u>.

The date/times referenced in this table are estimates and may change based on unexpected conditions during implementation.

Date/Time	Step	Communication Channel	Expectation for Participants
April 30, 2025, 08:15 EST – 09:00 EST (09:15 EPT – 10:00 EPT)	Renewed Market Launch Start Decision	Advisory Notice (Informational)	The IESO will confirm and notify Market Participants of its decision to proceed with the launch of the renewed market.
April 30, 2025, 09:00 EST (10:00 EPT)	Market Participants to start submitting dispatch data to renewed market systems.	(Participant Action)	The new URLs for the Energy Market Interface (EMI) and Market Information Management (MIM) system will be enabled: • EMI URL for the renewed market: • Via IESO Gateway: https://gateway.ieso.ca/ • Direct Link: https://emi2.ieso.ca/ • MIM URL for the renewed market via web services: https://webservices.ieso.ca/mim2 If participants encounter connectivity issues, they should contact the IESO.



Date/Time	Step	Communication Channel	Expectation for Participants
April 30, 2025, 09:00 EST – 21:59 EST (10:00 EPT – 22:59 EPT)	Maintain data in both the legacy market and renewed market systems	(Participant Action)	Market Participants will need to submit dispatch data to both the legacy and renewed EMI and MIM systems. • Participants will submit bids/offers for the legacy market using the current URLs: • EMI URL for the legacy market: Via IESO Gateway: https://gateway.ieso.ca/ • MIM URL for the legacy market via web services: https://emi.ieso.ca/ • Participants will submit their bids and offers for the renewed market through the new URLs: • EMI URL for the renewed market: Via IESO Gateway: https://gateway.ieso.ca/ • MIM URL for the renewed market via web services: https://emi2.ieso.ca/mim2



Date/Time	Step	Communication Channel	Expectation for Participants
April 30, 2025, 09:00 EST – 21:59 EST (10:00 EPT – 22:59 EPT)	Maintain data in both the legacy market and renewed market systems (cont.)	Advisory Notice (Participant Action)	 To ensure requirements are met for dispatch data in the legacy and renewed market systems: For the April 30, 2025 trade date, participants will submit their dispatch data in the legacy market system. For the May 1, 2025 trade date, participants will submit their dispatch data in both the legacy and renewed market systems. Generators and loads must ensure that identical maximum bid/offer quantities are submitted for each hour of May 1. Energy Traders must submit identical hourly data for May 1. The IESO will monitor dispatch data submissions and may reach out to participants to correct any discrepancies. If a participant cannot be reached, the IESO will address these discrepancies and apply the reason code "IESO Adjusted" where necessary.



Date/Time	Step	Communication Channel	Expectation for Participants
April 30, 2025, 17:00 EST (18:00 EPT)	Real-Time Market Financial Reference Level Values reports	Advisory Notice (Participant Action)	 Market participants with dispatchable and electricity storage resources will be able to access this report in their confidential folder under the IESO Reports Site. This report will be published for the May 1, 2025 trade date. IESO Reports Site to access Public Reports (via GUI): https://reports-public.ieso.ca IESO Reports Site to access Public and Confidential Reports (via API): https://reports.ieso.ca/api/v1.4/files?idp_id=ieso IESO Reports Site to access Public and Confidential Reports (via SFTP): https://reports.ieso.ca If the report is missing or contains structural or data-related issues, participants should notify the IESO. Note: The Real-Time Reference Quantity Values Report will be published 14 calendar days after the dispatch day.



Date/Time	Step	Communication Channel	Expectation for Participants
April 30, 2025, 18:00 EST – 22:40 EST (19:00 EPT – 23:40 EPT)	IESO website will stop publishing market content	(Informational)	The IESO will stop publishing select content for the legacy market on its public website, ieso.ca until May 4, 2025.
April 30, 2025, 20:00 EST (21:00 EPT)	Stop Market Participant Prudential System (MPPS)	Advisory Notice (Informational)	No action required. MPPS will be unavailable for participants until it is re-enabled on May 8, 2025.
April 30, 2025, 22:00 EST (23:00 EPT)	Planned start of the Market Suspension Stop access to legacy dispatch data submission market systems	Advisory Notice (Informational)	The IESO will suspend market operations at this time. Market Participants should no longer be able to access the legacy EMI and MIM systems: • EMI URL for the legacy market: Via IESO Gateway: https://gateway.ieso.ca/ • MIM URL for the legacy market via web services: https://webservices.ieso.ca/emim



Date/Time	Step	Communication Channel	Expectation for Participants
April 30, 2025, 22:07 EST – 22:15 EST (23:07 EPT – 23:15 EPT)	Final legacy Predispatch Report Run	(Informational)	The final pre-dispatch reports for the legacy real-time market are published in the IESO Reports Site.
April 30, 2025, 22:40 EST (23:40 EPT)	Stop legacy market dispatch engines and other systems IESO begins manually sending dispatch instructions to Market Participants Administrative Pricing Takes Effect	Advisory Notice (Participant Action)	Legacy dispatch engines are stopped. Market Participants will respond to manual dispatch instructions from the IESO. Administrative pricing will be in effect and is required for missing intervals in the legacy market for the April 30, 2025 trade date. It will also be required for any intervals for which new prices cannot be established during the start of the renewed market for the May 1, 2025 trade date.



Date/Time	Step	Communication Channel	Expectation for Participants
April 30, 2025, 22:50 EST – 23:30 EST (April 30, 2025, 23:50 EPT – May 1, 2025, 00:30 EPT)	New dispatch engine available	(Informational)	Dispatch engines will be available and online prior to the start of the renewed market.
April 30, 2025, 22:50 EST – 23:50 EST (April 30, 2025, 23:50 EPT – May 1, 2025, 00:50 EPT)	Legacy regulation (AGC) constraints are carried forward into the renewed market	(Informational)	Legacy AGC constraints are applied in the renewed market and are applicable for the May 1, 2025, and May 2, 2025 trade dates.
April 30, 2025, 23:50 EST (May 1, 2025, 00:50 EPT)	Availability Declaration Envelope (ADE) established for May 1 based on the dispatch data submitted up to 23:50 EST (May 1, 00:50 EPT).	(Informational)	The most recent maximum quantity of energy included in the bid or offer submitted before 23:50 EST (May 1, 00:50 EPT) will be considered the resource's ADE.



Date/Time	Step	Communication Channel	Expectation for Participants
May 1, 2025, 00:02 EST – 01:36 EST (01:02 EPT – 02:36 EPT)	The Pre-Dispatch and Real-Time Optimization sequences run	(Informational)	The initial Pre-Dispatch Calculation Engine and Real- Time Optimization sequences are run and validated for the May 1, 2025 trade date. Once the results are validated by the IESO, they will be published to market participants starting on HE02.
May 1, 2025, 01:40 EST (02:40 EPT)	Pre-Dispatch HE02 Results Published for study period starting HE03	Advisory Notice (Participant Action)	 Participants can verify the results of the pre-dispatch run by reviewing their pre-dispatch reports from the IESO Reports Site: IESO Reports Site to access Public Reports (via GUI): https://reports-public.ieso.ca IESO Reports Site to access Public and Confidential Reports (via API): https://reports.ieso.ca/api/v1.4/files?idp_id=ieso IESO Reports Site to access Public and Confidential Reports (via SFTP): https://reports.ieso.ca If reports are missing or contain structural or data-related issues, participants should notify the IESO.



Date/Time	Step	Communication Channel	Expectation for Participants
May 1, 2025, 02:00 EST (03:00 EPT)	Automatic Dispatch is enabled for HE03 INT 1. Real-Time Reports publishing started.	Advisory Notice (Participant Action)	 The new URLs for Dispatch Service are enabled: Dispatch Service User Interface URL for the renewed market: Via IESO Gateway: https://gateway.ieso.ca/ Direct Link: https://dispatch2.ieso.ca/ Dispatch Service URL via web services for the renewed market: https://webservices-prod.ieso.ca/dispatches/DispatchService?wsdl If participants encounter connectivity issues, they should contact the IESO. New and updated real-time reports are published in the IESO Reports Site. If reports are missing or contain structural or data-related issues, participants should notify the IESO.



Date/Time	Step	Communication Channel	Expectation for Participants
May 1, 2025, 03:00 EST (04:00 EPT)	Automatic Dispatch started for HE03 INT 1	Advisory Notice (Participant Action)	Participants will receive, acknowledge and follow 5-minute dispatch instructions, commitments, and notifications that are sent from the new Dispatch Service URLs. • Dispatch Service User Interface URL for the renewed market: • Via IESO Gateway: https://gateway.ieso.ca/ • Direct Link: https://dispatch2.ieso.ca/ • Dispatch Service URL via web services for the renewed market: https://webservice?wsdl If they encounter issues, they should notify the IESO.
May 1, 2025, 05:00 EST (06:00 EPT)	Standing Dispatch Data converted	(Informational)	The standing dispatch data that was submitted for the renewed market by May 1, 2025, 05:00 EST (06:00 EPT) will be converted for use by the new dispatch engines.



Date/Time	Step	Communication Channel	Expectation for Participants
May 1, 2025, 23:44 EST – May 2, 2025, 03:30 EST (May 2, 2025, 00:44 EPT – May 2, 2025, 04:30 EPT)	Results of the renewed market are monitored and evaluated	None	The IESO will monitor the results of the renewed market and observe the midnight cross-over. The results will act as inputs to the market transition completion decision.
May 2, 2025, 04:00 EST – 04:15 EST (05:00 EPT – 05:15 EPT)	IESO notifies participants on the completion of Market Transition, as well as the end of market suspension	Advisory Notice (Informational)	 The IESO will inform MPs of the market transition completion and announce the end date and time of the market suspension. Market Participants will be advised they can submit and/or edit dispatch data for the Day-Ahead Market (DAM) starting at 05:00 EST (06:00 EPT). Once this is announced, there will be no rollback to the legacy market. Day-Ahead Commitment Process (DACP) notifications will transition to DAM notifications on the IESO website at 04:00 EST (05:00 EPT) on May 2, 2025



Date/Time	Step	Communication Channel	Expectation for Participants
May 2, 2025, 04:30 EST (05:30 EPT)	Adequacy Report is published for Day +1	(Participant Action)	Adequacy report will be published for Day +1 (May 2, 2025). If the report is missing or contains structural or data-related issues, participants should notify the IESO.
May 2, 2025, 05:00 EST – 08:59 EST (06:00 EPT – 09:59 EPT)	Market Participants submit Day-Ahead Market (DAM) dispatch data.	(Participant Action)	The Day-Ahead Market (DAM) dispatch data submission window is now open. Market Participants can begin to submit dispatch data in the Day-Ahead Market for the May 3, 2025 trade date. • EMI URL for the renewed market: Via IESO Gateway: https://gateway.ieso.ca/ • MIM URL for the renewed market via web services: https://webservices.ieso.ca/mim2



Date/Time	Step	Communication Channel	Expectation for Participants
May 2, 2025, 05:45 EST (06:45 EPT)	Day-Ahead Market Financial Reference Level Values reports published for May 3, 2025	(Participant Action)	Market participants with dispatchable and electricity storage resources will be able to access this report in their confidential folder under the IESO Reports Site. This report will be published for the May 3, 2025 trade date given that the DAM engine only started on May 2, 2025. • IESO Reports Site to access Public Reports (via GUI): https://reports-public.ieso.ca • IESO Reports Site to access Public and Confidential Reports (via API): https://reports.ieso.ca/api/v1.4/files?idp_id=ieso • IESO Reports Site to access Public and Confidential Reports (via SFTP): https://reports.ieso.ca If the report is missing or contains structural or data-related issues, participants should notify the IESO.



Date/Time	Step	Communication Channel	Expectation for Participants
May 2, 2025, 06:59 EST (07:59 EPT)	Segregated Mode of Operations (SMO) requests deadline for May 3, 2025	(Informational)	New timelines for Segregated Mode of Operation (SMO) requests will apply for requests related to May 3, 2025.
May 2, 2025, 07:59 EST (08:59 EPT)	Non-Critical Segregated Mode of Operations (SMO) requests deadline for May 3, 2025 Market Participants submit regulation offers for May 3, 2025	(Participant Action)	New timelines for Non-Critical Segregated Mode of Operation (SMO) requests will apply for requests related to May 3, 2025. Legacy AGC offers are carried forward into the new market for the May 1, 2025 and May 2, 2025 trade dates. Market Participants can submit new regulation offers starting for the May 3, 2025 trade date onwards.



Date/Time	Step	Communication Channel	Expectation for Participants
May 2, 2025, 08:00 EST (09:00 EPT)	Changes to Outage Coordination and Scheduling System (OCSS) submission and assessment deadlines takes effect	(Participant Action)	 For outages that require 1-Day advance approval: The outage submission deadline will be 10:00 EST (11:00 EPT) two business days prior to the outage start date. The outage assessment deadline will be 08:00 EST (09:00 EPT) on the previous business day. Submissions that do not meet these timelines will be rejected.
May 2, 2025, 08:00 EST (09:00 EPT)	Pre Day-Ahead Reports and Constraints published	(Participant Action)	 The following reports are published: Pre Day-Ahead Market Area Reserve Constraints Pre-Day Ahead Market Intertie Scheduling Limits Report Adequacy Report (Pre-DAM) If reports are missing or contain structural or data-related issues, participants should notify the IESO.



Date/Time	Step	Communication Channel	Expectation for Participants
May 2, 2025, 09:00 EST (10:00 EPT)	Start of the Initial Day-Ahead Market (DAM) run	(Informational)	The Day-Ahead Market (DAM) calculation engine will run at this time.
May 2, 2025, 14:30 EST (15:30 EPT)	The Day-Ahead Market (DAM) is declared a Success OR The DAM is declared a failure	Advisory Notice (Participant Action)	The IESO will communicate the first successful completion of the DAM to Market Participants. OR The IESO will issue a notification of DAM Failures to Market Participants. In the event of a DAM failure, the obligation for Market Participants to submit dispatch data by 09:00 EST (10:00 EPT) continues. Market Participants must establish an Availability Declaration Envelope (ADE) for all applicable trade dates until the DAM runs successfully.



Date/Time	Step	Communication Channel	Expectation for Participants
May 2, 2025, 14:30 EST (15:30 EPT)	Day-Ahead Market (DAM) results are published	Advisory Notice (Participant Action)	 The IESO will publish the DAM results reports no later than 14:30 EST (15:30 EPT). The following reports will be published: Day Ahead Schedule Report Day Ahead Commitments Report Dispatch Data Report for Day Ahead Market Scheduling Process Day-Ahead Pseudo-unit Computed Values Report Day-Ahead Area Operating Reserve Shortfall Report Day-Ahead Totals Report Day-Ahead Security Constraints Report Day-Ahead Virtual Transactions Report Day-Ahead Market Hourly Energy LMP Report Day-Ahead Virtual Zonal Price Report



Date/Time	Step	Communication Channel	Expectation for Participants
May 2, 2025, 14:30 EST (15:30 EPT)	Day-Ahead Market (DAM) results are published (cont.)	Advisory Notice (Participant Action)	 (cont.) Day-Ahead Hourly Ontario Zonal Price Report Day-Ahead Market Hourly Operating Reserve Price Report Day-Ahead Market Hourly Intertie Energy Price Report Day 1 Adequacy Report If the reports are not published by 14:30 EST (15:30 EPT), a DAM failure is declared and the IESO will try to run the DAM engine the next day. If reports are missing or contain structural or datarelated issues, participants should notify the IESO.
May 4, 2025, 17:00 EST (18:00 EPT)	IESO public website dynamic content publishing is resumed	(Informational)	The IESO public website will now publish content pulling data from renewed market sources.



Date/Time	Step	Communication Channel	Expectation for Participants
May 7, 2025, 17:00 EST (18:00 EPT)	Price Responsive Loads (PRLs) in effect	(Informational)	This step is informational.
May 7, 2025, 17:00 EST (18:00 EPT)	Restriction period for registration changes ends	Email (Informational)	This step is informational.
May 7, 2025, 19:00 EST (20:00 EPT)	Market Participant Prudential System (MPPS) activated	(Informational)	 MPPS will be activated after 17:00 EST (18:00 EPT). Prudential support obligation (PSO) calculations for physical transactions will be sent to market participants shortly after the updated system becomes available. The Prudential transitional rules will end once the Prudential System and related processes are operational. This is expected to occur by end-of-day May 7, 2025.



Date/Time	Step	Communication Channel	Expectation for Participants
May 7, 2025, 23:45 EST (May 8, 00:45 EPT)	IESO Market Settlements process runs	(Informational)	The initial settlement calculation run of the renewed market will occur six (6) days after the launch of the renewed market, which is on May 7, 2025 for the May 1 trade date.
May 8, 2025, 08:00 EST (09:00 EPT)	Virtual Traders Can Begin the Authorization Process	(Participant Action)	 MPPS becomes available to market participants. If a participant provides its PSO to the IESO on May 7, 2025 (before the IESO makes PSOs available to Market Participants), and the IESO reviews and accepts it on May 8, then the earliest that the organization can potentially participate in the DAM as a Virtual Trader is on May 10, 2025, for the May 11, 2025 trade date. If a participant is waiting for the IESO to publish PSOs on May 8, 2025, then the earliest that the organization can potentially participate in the DAM as a Virtual Trader is on May 11, 2025, for the May 12, 2025 trade date.



Date/Time	Step	Communication Channel	Expectation for Participants
May 8, 2025, 10:00 EST – 15:00 EST (11:00 EPT – 16:00 EPT)	Prudential Support Obligation (PSO) published.	(Informational)	 Prudential Support Obligations (PSO) are published after IESO reviews and approves on May 8. Automated notices and margin calls will be issued at 13:00 EST (14:00 EPT).
May 8, 2025, 16:00 EST (17:00 EPT)	Renewed Market Launch is completed	Email (Informational)	The IESO will announce to external stakeholders that the launch of the renewed market has been completed.



Next Steps

- The IESO will be hosting an <u>Overview of the Renewed Market Launch</u> webinar on **April 16, 2025**.
- The final version of the MRP Readiness Plan for Market Renewal Launch will be posted on the Market Renewal webpage early next week.
- A reminder that the restriction period for registration changes will begin on April 24, 2025.
- Participants are recommended to review and complete the preparation activities that are outlined in the MRP Readiness Plan for Market Renewal Launch.
- Participants should take this opportunity to verify that their Production user and system accounts have the correct roles and permissions to access the IESO systems and reports.
- Questions or feedback related to the Market Renewal Launch can be submitted to the <u>IESO Customer</u>
 Relations mailbox.



Thank You

ieso.ca

1.888.448.7777

customer.relations@ieso.ca

engagement@ieso.ca



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linkedin.com/company/IESO

