



DECEMBER 2023

Market Renewal Program: Orientation Package for Market Participants

MRP External Readiness Team

Purpose

This document is intended to assist IESO Market Participants in preparing for the launch of the renewed market when IESO's Market Renewal Program (MRP) goes live in May 2025.

It provides an overview of how the market is changing, how that may impact your organization, what you may need to do to prepare, and provides links to resources to assist you with these preparations.

IESO will update this document from time to time, as new materials become available. The latest version will be posted on the [Market Participant Readiness page](#).



How is Market Renewal changing the Market?

Market Renewal Program Overview

- The Market Renewal Program (MRP) will improve how we supply, schedule and price electricity, enabling the wholesale market to reliably and cost-effectively support the sector transformation
- Ontario's supply mix has changed dramatically over the past twenty years and is set for another seismic change with decarbonization
- The growing complexity and diversity of supply options in the future increases the need for the wholesale market to support efficient dispatch of resources and signal the necessary investments needed to support system reliability

MRP Scope: Key Market Features

New Market Features

Benefits

Day-Ahead Market

- New market to commit energy resources the day before operation through a financially binding day-ahead commitment process, increasing operational certainty for suppliers
- New options to manage price risk by participating as a Price Responsive Load or a Virtual Trader

Enhanced Unit Commitment

- Enhancements to resource scheduling process (occurs 3-24 hours before operation) to ensure optimal mix of resources are scheduled to deliver reliability at lowest cost

Locational Pricing

- Introduces locational pricing to ensure the price of energy at any point in the province transparently reflects global and local system constraints
- Replaces uniform price for suppliers (Hourly Ontario Energy Price) with Locational Marginal Prices for dispatchable resources and Ontario Zonal Price for all other consumers
- New four-zone demand forecast will provide more accurate view of demand across the province

These new features will work together to lower costs to consumers and are also essential to creating the platform needed to efficiently integrate emerging resource types such as DERs, storage, and hybrids.

Market Renewal Implementation Details

- MRP is changing how the electricity markets and system operate which will also result in changes to how market power is mitigated and the market is settled.
- The market rules and manuals that detail these changes have been drafted and are progressing through the stakeholder engagement and approval process which is expected to be completed in October 2024.
- Presentations that explain how the Market Renewal design is proposed to be implemented are available here:
 - Market and system operations: Q and A presentations held between [September 26 and October 3, 2023](#).
 - Market settlements: Presentations held on [December 14, 2022](#).
 - Market Power Mitigation: [Market Manual 14.2, Workbook Instructions and Frequently Asked Questions, Reference Levels and Reference Quantities Blank and Example Workbooks](#).

More Information

Resource

Description

[Market Renewal Webpage](#)

Dedicated section on the IESO's corporate website that describes the program, and contains a suite of resources that market participants can use to prepare their organization for changes that will be introduced at Market Systems Go-Live.

[2019 Market Renewal Business Case](#)


Outlines the benefits and net savings that the IESO aims to achieve by implementing MRP.

[Day-In-The-Life Summary Documents](#)

Provides an overview of key MRP concepts, the timeline changes from day-ahead to real-time dispatch day, and an overview of training topics for 13 market participant segments.

[Implementation Phase Documents: Market Rules and Market Manuals](#)

Draft documents that show the amendments to the new and changing market rules and market manuals that have been proposed as part of MRP.



How will Market Renewal impact my organization's business processes and systems?

Changes to Market Participant Processes and Systems

IESO Market Participants may need to adjust their business processes and IESO interfaces to incorporate the changes MRP is implementing. The changes required will be highly dependent on how your organization participates in the market and whether you have automated interfaces with IESO systems.

**All Market
Participants
may need to:**

- Incorporate changes to market settlement charges into your settlement and accounting systems
- Assess changes to IESO market reports relied on by your business processes
- Update any automated interfaces your business uses to retrieve and process IESO settlements and reports

**Participants
with
Dispatchable
Resources
may need to:**

- Adjust offer/bid strategy to account for locational pricing, financially binding day-ahead market and changes to market power mitigation framework (market power assessed prior to dispatch rather than only in post)
- Incorporate changes to market settlement charges into your settlement and accounting systems
- Assess changes to IESO market reports relied on by your business processes
- Update any automated programs your business uses to interface with IESO systems used for scheduling and dispatch, or for processing reports and settlements

Changes to Market Settlement

- MRP is changing many existing charge types used to settle the market and introducing new charge types. If your organization has either manual or automated processes for retrieving, analyzing and processing IESO settlement statements you may need to:
 - Identify the charge type changes relevant to your business with the [Charge Types Mapping Summary](#) which identifies new charge types, changes to existing charge types, the market participant types these apply to and how these relate to existing charge types
 - Update any automated program your business uses to process IESO settlement statements using the [charge type equations and format specifications](#) IESO is providing
 - Update your [Application Programming Interface \(API\)](#) if used to automatically retrieve settlement statements and data files from IESO's Reports Site
 - See the supporting resources on slides 11, 12 and 14

Technical Specifications and Supporting Materials for Testing

| System | Technical Resources | Applies to Participants with an API System | Applies to Participants without an API System | Impacted Market Participant Segments | Used in Preparation For |
|-------------|---|--|---|--|---|
| Settlements | Charge Types Mapping Summary: maps the new charges that will be introduced at Market Systems Go-Live to the existing charge types that are used in the current market. | Yes | Yes | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Non-Dispatchable Loads, Demand Response Customers, Intertie Traders, Virtual Traders, Transmission Rights Participants, LDCs | Sandbox End-to-End Testing Production Market Systems Go-Live |
| | IESO Charge Types and Equations: list of the charge codes that will be used by the IESO settlement process in the renewed market, and the formula and variable definitions behind each of these charges. | Yes | Yes | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Non-Dispatchable Loads, Demand Response Customers, Intertie Traders, Virtual Traders, Transmission Rights Participants, LDCs | Sandbox End-to-End Testing Production Market Systems Go-Live |

Technical Specifications and Supporting Materials for Testing

| System | Technical Resources | Applies to Participants with an API System | Applies to Participants without an API System | Impacted Market Participant Segments | Used in Preparation For |
|-------------|--|--|---|--|---|
| Settlements | Format Specifications for Settlement Statement Files and Data Files (link will be available in Q2 2024): describes the structure and characteristics of the fields that are used in the settlement statement and data files. | Yes | Yes | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Non-Dispatchable Loads, Demand Response Customers, Intertie Traders, Virtual Traders, Transmission Rights Participants, LDCs | Sandbox End-to-End Testing Production Market Systems Go-Live |
| | Generic sample settlement statement and data files (link will be available in Q4 2024): these files will include all the new charge types that will be present in the renewed market. Market participants can use these files to support the implementation and testing of changes to their own settlement systems. | Yes | Yes | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Non-Dispatchable Loads, Demand Response Customers, Intertie Traders, Virtual Traders, Transmission Rights Participants, LDCs | Sandbox End-to-End Testing Production Market Systems Go-Live |

Changes to Market Reports

- MRP is changing many existing market data reports that may be used by participants in downstream business processes to manage analyze market outcomes or verify settlement information. A number of new reports will be created to issue new market data such as locational market prices. If your organization has either manual or automated processes for retrieving, analyzing and processing IESO market reports you may need to:
 - Identify the market report changes relevant to your business in the "[List of external reports impacted by MRP](#)" which identifies new reports and changes to existing reports.
 - Update your Application Programming Interface (API) if used to automatically retrieve market reports from IESO's Reports Site
- See the supporting resources on slide 14

Technical Specifications and Supporting Materials for Testing

| System | Technical Resources | Applies to Participants with an API System | Applies to Participants without an API System | Impacted Market Participant Segments | Used in Preparation For |
|--------------|---|--|---|--|--|
| Reports Site | Sample, schema and help files for new and changing system and market reports. These reports will be released in 4 quarterly batches, beginning in September 2023. | Yes | Yes | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Non-Dispatchable Loads, Demand Response Customers, Intertie Traders, Virtual Traders, Transmission Rights Participants, LDCs, Transmitters | Sandbox Market Trials Sandbox End-to-End Testing Production Market Systems Go-Live |

Changes to Market Operations

- MRP is introducing a new Day-Ahead Market to commit energy resources the day before operation. This requires changes to the manual and automated interfaces the IESO provides for scheduling and dispatch of resources.
- If your organization has electricity supply resources that submit bids or offers into the market through an Application Programming Interface (API) you will need to use the resources provided on slides 16 and 17 to update your systems.
- IESO will provide training and testing on the user interface used by operators that manually enter bids and offers.

Technical Specifications and Supporting Materials for Testing

| System | Technical Resources | Applies to Participants with an API System | Applies to Participants without an API System | Impacted Market Participant Segments | Used in Preparation For |
|--|---|--|---|---|--|
| Market Information Management (MIM) | XSD: schema containing XML tags that dispatchable participants can use when submitting their bids or offers to MIM. | Yes | No | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Hourly Demand Response, PRLs, Intertie Traders, Virtual Traders | Sandbox Connectivity Testing Sandbox Market Trials Sandbox End-to-End Testing Production Market Systems Go-Live |
| | WSDL: list of available web service operations that market participants can use when connecting to MIM via web services. | Yes | No | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Hourly Demand Response, PRLs, Intertie Traders, Virtual Traders | Sandbox Connectivity Testing Sandbox Market Trials Sandbox End-to-End Testing Production Market Systems Go-Live |
| | MIM Web Services Toolkit (link will be available in Dec 2023): JAVA program that market participants can use to test their API program's connectivity and functionality with the IESO's MIM web service. | Yes | No | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Hourly Demand Response, PRLs, Intertie Traders, Virtual Traders | Sandbox Connectivity Testing Sandbox Market Trials Sandbox End-to-End Testing Production Market Systems Go-Live |

Technical Specifications and Supporting Materials for Testing

| System | Technical Resources | Applies to Participants with an API System | Applies to Participants without an API System | Impacted Market Participant Segments | Used in Preparation For |
|-------------------|--|--|---|---|--|
| Dispatch Services | Dispatch Service Web Service Design Specifications (SPEC-154) : list of fields that market participants can use to retrieve and respond back to the dispatch instructions that are sent from the IESO. | Yes | No | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Hourly Demand Response, Demand Response Customers, Intertie Traders | Sandbox Connectivity Testing Sandbox Market Trials Sandbox End-to-End Testing Production Market Systems Go-Live |
| | Dispatch Notification Service Web Service Design Specifications (SPEC-155) : list of fields that are included in the dispatch instructions that market participants receive from the IESO. | Yes | No | Dispatchable Generators, Non-Dispatchable Generators, Dispatchable Loads, Hourly Demand Response, Demand Response Customers, Intertie Traders | Sandbox Connectivity Testing Sandbox Market Trials Sandbox End-to-End Testing Production Market Systems Go-Live |



How is IESO helping my organization get ready for the launch of the renewed Market?

Support for Market Participant Readiness

IESO is helping participants prepare for the launch of the renewed market through:

- **Training:** [education and training](#) to understand the changes; an [overview of the types of training and when each will be issued](#) is available.
- **Testing:** [testing opportunities](#) to ensure participant-IESO interfaces and end-to-end processes function properly.
- **Assessments:** participant readiness will be assessed on a periodic basis through surveys sent to the designated MRP Contact for each market participant; this input will also help IESO adjust support as needed.

Support

IESO will be supporting participants as the changes go-live to address questions and issues and sustain the change

- Leading up to go-live MRP is using an account management model with advisors dedicated to each different participant type establishing relationships, handling questions, executing assessments and preparing the various readiness plans and training material
- Please send an email to market.renewal@ieso.ca to find out the Business Advisor for your organization

More Information

Resource

Description

[MP Readiness Checklist](#)

Checklist that will assist market participants in understanding the scope and timing of what they will need to do, what they will be trained on, and the actions they will need to take in order to be prepared for Market Systems Go-Live.

Market Participant Testing Plan (link will be available in Dec 2023)

Provides market participants the information to plan and test the changes that MRP will be introducing in the renewed market. It includes an overview of the different test phases, the objective of each test phase, what market participants can test during each phase, a list of applications in scope, and what market participants should do in order to prepare for system testing next year.

Market Renewal Program – More Information

- Dedicated section of the IESO website provides easy access to all previous MRP engagement materials, updates on current engagements and material to support participant readiness activities. Visit www.ieso.ca/en/Market-Renewal.
- Sign up for newsletter updates <https://www.ieso.ca/subscribe>.

Thank You

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