JUNE 11, 2024

Technical Panel Education Session:

Market Renewal Program – Final Alignment Batch

Stephen Nusbaum – Director, Energy Implementation



Agenda

- Objective
- Final Alignment Overview
- Three categories of notable changes from previous batches:
 - 1. Previously posted market rule changes (Enduring)
 - 2. New market rule changes (Enduring)
 - 3. New market rule changes (Transitional)
- Navigating the FA batch
- Placeholder TP Sessions
- Next Steps
- Appendix



Objective

- Provide Panel members with:
 - An overview of how to navigate the Final Alignment (FA) batch materials;
 - A review of the new content introduced in the FA batch of market rule amendments;
 - An opportunity to consider the need for any additional TP working group sessions to discuss any issues or topics related to potential interdependencies between MRP batches.



The Final Alignment Batch Overview

The Final Alignment (FA) Batch will consolidate all Technical Panel (TP) provisionally recommended/IESO Board provisionally approved market rule amendments, with three types of further modifications:

- **1. updates or corrections** to earlier batches resulting from the ongoing implementation and engagement processes;
- **2. transitional market rules** required to facilitate the mechanics of transitioning from the old market to the renewed market; and
- **3. administrative "conforming changes"** -to reflect any updates or corrections, e.g. updates to references and defined terms.



Category 1: Previously Posted Market Rule Changes (Enduring)



Incremental Changes to MPM and Settlement Batches

- At the February 13th TP meeting, Panel members were provided with an update on ongoing work related to Market Power Mitigation (MPM) and Settlement batches since the TP's provisional recommendations on the respective rule amendments.
 - The MPM batch was provisionally approved on August 24, 2022
 - The Settlements batch was provisionally approved on August 30, 2023
- In December 2023, the IESO introduced incremental refinements to the market rules, market manuals, reference level workbooks, and example workbooks, based on significant input from market participants, as well as internal feedback received in response to solution development and process design.



Market Power Mitigation

- These refinements included:
 - New eligible costs for thermal resources and hydroelectric resources;
 - Information regarding supporting materials for temporary reference level change requests for electricity storage resources; and
 - $_{\odot}~$ Various clarification, alignment, and other incremental enhancements.
 - The incremental market rule amendments that were discussed in December have been included in the FA batch.



Settlements, Metering and Billing

- In September and December 2023, the IESO proposed modification to the following settlement charges:
 - Corrections to DAM Balancing Credit formulas to align with design intent;
 - Modification to Intertie Failure Charges to address potential gaming issues;
 - Alignment of Operating Reserve Accessibility (ORA) with MRP design; and
 - Corrections to formula for non-dispatchable generators and electricity storage resources that are injecting.



Settlements, Metering and Billing (continued)

- On January 29, 2024, the IESO posted the following revised market rule and market manual documents to reflect the Sept/Dec modifications to settlement charges, to incorporate stakeholder feedback, and to make other consequential changes:
 - Chapter 9 and Chapter 9 Appendices;
 - Market Manual 5.5 IESO-Administered Settlement Amounts;
 - IESO Charge Types and Equations;
 - Summary of Changes.
- The market rule amendments proposed in January have now been included in the FA batch for TP review.
- Comments were received from OPG and Evolugen related to clarification, with suggested edits made to materials in the Final Alignment batch.



Category 2: New Market Rule Changes (Enduring)



Physical Bilateral Contracts - Background

- Generically, a physical bilateral contract (PBC) is an agreement between a consumer to buy and a supplier to sell a specified quantity of energy at a specific price.
- The IESO facilitates the settlement of PBC agreements between two Market Participants using the IESO's settlement processes.
- PBCs in Ontario are not part of the scheduling and dispatch process, and are not considered when establishing market prices.



Physical Bilateral Contracts

The IESO intends to suspend PBCs effective as of the MRP go-live date.

Rationale:

- Requires significant effort and costs to implement and align changes with MRP design;
- Limited use and evolution since market opening;
 - Currently only three (3) suppliers with active PBCs serving five (5) industrial consumers
- No material concerns raised to date from impacted stakeholders

If in the future if it is determined that there is sufficient value in reintroducing an updated PBC mechanism, the existing elements of the PBC framework could be leveraged



Physical Bilateral Contracts

- A new provision in Chapter 8 will facilitate the suspension of PBCs upon MRP Go-Live:
- 2.0.1 Following a *market transition* this section 2 and the relevant provisions of MR. Ch.9 applicable to *physical bilateral contracts* shall not apply to the extent that they apply to *physical bilateral contracts* and the *IESO* shall not administer and settle *physical bilateral contracts*. Such inapplicability shall continue until such time as the *IESO* resolves the relevant software inadequacies and *publishes* notice that such software inadequacies are resolved and the *IESO* is capable of administering and settling *physical bilateral contracts*.
- Existing references to PBCs throughout the Market Rules and Market Manuals will be retained but inoperable; these references may either be removed or repurposed in the future.



Commissioning Process

- The commissioning and testing process for new resources, and for existing resources with new equipment, will remain the same.
- However, the registration requirements associated with commissioning will change to facilitate concurrent registration and MPM processes.
- This change will allow new registration parameters for dispatchable resources to be collected concurrently in the tools, rather than sequentially.







Commissioning Process - Market Rule & Manual Changes

 Market rule amendments to Chapter 7 will be required as part of the FA batch to outline requirements for registration, and provide clarity on how a resource is treated by the IESO during its commissioning and testing process.

Changes to Market Manual 7.3 - Outage Management:

- To be consistent with the market rule amendments;
- To provide greater clarity on the requirement for market participants to have an up-to-date commissioning test plan, and require them to update their dispatch data and outage information consistent with that plan.



Dispatch Scheduling Errors

- IESO is proposing further amendments to document and clarify how dispatch scheduling errors will be applied in the renewed market
- Updates are reflected in the Final Alignment batch, including:
 - MR Ch.7 s7.6.4 updated to clarify which settlement amounts may be adjusted in the event of a dispatch scheduling error;
 - Market Manual 5.5 s5 Market Remediation updated to reference:
 - MR Ch.7 s7.6 Dispatch Scheduling Errors;
 - Market Manual 4.2 s9 Day-Ahead Market Remediation; and
 - Market Manual 4.3 s7 Real-Time Market Remediation/



Notice of Disagreement Timelines

The IESO proposes to amend the timelines associated with filing Notice of Disagreements (NODs) for Final settlement statement and recalculated settlement statements as requested by Market Participants.

Statement	Current timeline	Post MRP timeline
Final settlement statement	6 business days	10 business days from May 2025
Recalculated settlement statement	6 business days	10 business days from May 2025

notice of disagreement means a notice provided by a *market participant* in accordance with MR Ch.9 s. 6.8 of Chapter 9 to the *IESO* in regard to a disagreement over a *preliminary settlement statement*;



NOD Timelines: Rule Amendments Required to Facilitate

The change to the NOD timelines will impact the IESO Settlement Schedule and Payments Calendar (SSPC) - 2025 calendar will be produced in November 2024

While the renewed market rules for MRP will be in effect in November 2024, the renewed market rules will pertain to the new market, and will not impact the legacy market rules upon which the November 2024 SSPC calendar will be based.

Therefore, in addition to making amendments to the renewed market rules to facilitate the NOD timeline extensions, an amendment to the legacy market rules will be required to ensure the extension commences May 1, 2025 and is in place at the time the SSPC is issued in November 2024.

This amendment will be contained in a separate proposal document; MR-00481-R13, which will be included as part of the Final Alignment batch.



NOD Timelines: amendments to legacy market rules

- 6.3.14 After the *preliminary settlement statement* referred to in section 6.3.13 is issued, each *market participant* shall have six *business days* to notify the *IESO* of errors or omissions in the *preliminary settlement statement* in accordance with section 6.8. Notwithstanding the foregoing and commencing May 1, 2025, each *market participant* shall have ten *business days* to notify the *IESO* of errors or omissions in the *preliminary settlement* statement in accordance with section 6.8.
- 6.3.16 After the *final settlement statement* referred to in section 6.3.15 is issued, each *market participant* shall have six *business days* in which to notify the *IESO* of errors or omissions in the *final settlement statement* in accordance with section 6.8. Notwithstanding the foregoing and commencing May 1, 2025, each *market participant* shall have ten *business days* to notify the *IESO* of errors or omissions in the *final settlement* in accordance with section 6.8.
- 6.3.18 After a *recalculated settlement statement* referred to in section 6.3.17 is issued, other than in respect of a *final recalculated settlement statement*, each *market participant* shall have six *business days* in which to notify the *IESO* of errors or omissions in the *recalculated settlement statement* in accordance with section 6.8. Notwithstanding the foregoing and commencing May 1, 2025, each *market participant* shall have ten *business days* to notify the *IESO* of errors or omissions in the *recalculated settlement* in accordance with section 6.8.



NOD Timelines: MR 0.9 s.B

B.1 Exclusions

B.1.2 Notwithstanding section 6.3.14, the applicable timeline to notify the IESO of any errors or omissions in a preliminary settlement statement shall be as follows:

Upon commencement of market transition, the applicable timeline to notify the IESO of any such errors or omissions in accordance with section 6.8 shall be ten business days; and

Commencing 8 months after the first calendar day of the month in which the market transition completion date occurs, and for a period of 6 months, the applicable timeline to notify the IESO of any such errors or omissions in accordance with section 6.8 shall be eight business days.

For greater certainty, this provision does not alter the timelines set out in section 6.3.3, and following the operation of section (b), the relevant timelines will return to as they are stated in section 6.3.14.

Extensions to timelines for the other settlement statements will reside in MR Ch.0.9 s.6.3.16 (for final settlement statements) and MR Ch.0.9 s.6.3.18 (recalculated settlement statement)



Prudential Monitoring

- An MP's prudential support is collateral the IESO holds for net debtors in the market to mitigate against payment default. The IESO monitors an MP's exposure on a daily basis against its trading limit.
- During the MRP cutover period the Market Participant Prudential System (MPPS) will be temporarily inactive; starting Day –1 (April 30).
- During the period when the updated prudential system will not have the data set required to calculate exposures (notionally the first six days of the new market), estimated actual exposure will be calculated using an average of the three most recent invoices in which a market participant has conducted physical transactions for energy.



Market Power Mitigation – Minor Modifications

- A number of provisions related to market power mitigation have been modified since the IESO's December 15, 2023 webinar. Only one of these changes is to a market rule:
 - MR. Ch.7 s.22.8.14 now specifies the settlement mechanism by which the IESO shall recover the costs of an independent reviewer:
 - Where a market participant triggers an independent review, the IESO will apply a settlement charge to the participant.
 - Where the IESO triggers a subsequent review, the IESO recovers the cost from the market.



Market Power Mitigation – Minor Modifications, cont'd

Notable Market Manual Changes

- All changes to the market manual provisions are highlighted in the Readers Guide.
- Notable changes include the following:
 - Non-dispatchable generation resources and dispatchable loads have been removed from the NCA report (MM14.1 s.2.2.1);
 - Clarifications with respect to IESO evaluation of supporting documentation regarding eligible costs (MM14.2 s.3.2);
 - Adjustment to publication time for the Day-ahead Market Reference Quantity Values Report (v2) (MR 14.2 s.4.2).



Market Power Mitigation – Minor Modifications, cont'd

- Change to residual fuel oil and ignition oil cost determinations for thermal resources specifying that market participants will provide the weighted average cost of fuel rather than utilizing a cost index (MM14.2 s.7.1.5.1)
- Additional eligible operating and maintenance costs for hydroelectric resources (MM14.2 s.7.2.2.1 and s.7.2.2.2);
- Additional eligible transmission and distribution costs for electricity storage resources (MM14.2 s.7.6 and s.7.6.2);



Category 3: New Market Rule Changes (Transitional)



Legacy and Renewed Market Rules

The market rules and manuals for the renewed market will come into effect several months in advance of the market transition to support Registration Go-live activities and to authorize the market transition process.

• The majority of the renewed market rules - including those related to operations and settlement - will be in effect, but will remain inoperative until commencement of the market transition.

The legacy rules will continue to be operative, and to govern the current market until they are superseded by the renewed market rules at the commencement of market transition.

• While legacy market rules will be superseded by the renewed market rules, the legacy market rules will still apply for events that took place prior to market transition.

The legacy and renewed market rules will be published separately.



Section A

- Each renewed market rule chapter and manual will contain a new 'Section A' that will define its applicability.
- These Section A rules will allow both the renewed market rules and the legacy market rules to be in effect concurrently.
- The renewed rules and manuals will be distinguished from the legacy rules in their numbering by sharing a "0." identifier, per the following examples:

Legacy market rules/manuals	Renewed market rules/manuals
Chapter 1	Chapter 0.1
Chapter 2	Chapter 0.2
MM1.5	MM0.1.5



Draft Section A

A.1 Chapter Scope and Operation

- A.1.1 This Chapter is part of the *renewed market rules,* which pertain to:
 - A.1.1.1 the period prior to a *market transition* insofar as the provisions are relevant and applicable to the rights and obligations of the *IESO* and *market participants* relating to preparation for operation in the *IESO administered markets* following commencement of *market transition;* and
 - A.1.1.2 the period following commencement of *market transition* in respect of all the rights and obligations of the *IESO* and *market participants.*
- A.1.2 All references herein to chapters or provisions of the *market rules* will be interpreted as, and deemed to be references to chapters and provisions of the *renewed market rules*.
- A.1.3 Upon commencement of the *market transition*, the *legacy market rules* will be immediately revoked and only the *renewed market rules* will remain in force.



Draft Section A cont'd

A.1 Chapter Scope and Operation

A.1.4 For certainty, the revocation of the *legacy market rules* upon commencement of *market transition* does not:

A.1.4.1 affect the previous operation of any *market rule* or *market manual* in effect before the *market transition*;

A.1.4.2 affect any right, privilege, obligation or liability that came into existence under the *market rules* or *market manuals* in effect prior to the *market transition*;

A.1.4.3 affect any breach, non-compliance, offense or violation committed under or relating to the *market rules* or *market manuals* in effect prior to the *market transition*, or any sanction or penalty incurred in connection with such breach, non-compliance, offense or violation

A.1.4.4 affect an investigation, proceeding or remedy in respect of,

- (a) a right, privilege, obligation or liability described in subsection A.1.4.2, or
- (b) a sanction or penalty described in subsection A.1.4.3.

A.1.5 An investigation, proceeding or remedy described in subsection A.1.4.3 may be commenced, continued or enforced, and any sanction or penalty may be imposed, as if the *legacy market rules* had not been revoked.



Section B Rules

Temporary exceptions to the enduring renewed market rules, required to facilitate the transition to a new market:

- Actual exposure calculation for prudentials during market transition (Ch. 0.2);
- Outage notification timelines (Ch. 0.5);
- Settlement basis for self-scheduling storage (Ch. 0.9); and
- Notice of disagreement timeline for preliminary settlement statements (Ch. 0.9).



Notice of Disagreement Timelines

The IESO proposes to amend the timelines associated with filing Notice of Disagreements (NODs) for preliminary settlement statements as requested by Market Participants.

Statement	Current timeline	Post MRP timeline
Preliminary settlement statement	6 business days	10 business days for the first 8 months* 8 business days for the next 6 months 6 business days thereafter

notice of disagreement means a notice provided by a *market participant* in accordance with MR Ch.9 s. 6.8 of Chapter 9 to the *IESO* in regard to a disagreement over a *preliminary settlement statement*;

* Assuming a successful market transition that began May 1, 2025.



Draft Section B example: Prudentials

B.1 Exceptions

B.1.1 Notwithstanding section 5.5.1, for the purposes of facilitating the *market transition*, and for such time as may be required for the *IESO* to accumulate sufficient data to comply with section 5.5.1, the IESO may for the calculation of *actual exposure*, calculate a *market participant's actual exposure* for *physical transactions* using an average of the actual net *settlement amounts* for the three most recent *energy market billing periods*, in which that *market participant* has conducted *physical transactions* for *energy*.



Definitions

renewed market rules refers to a set of *market rules* and *market manuals*, the purpose and scope of which are described in MR Ch 0.1 - 0.11, s.A.1

legacy market rules means the baseline of *market rules* and *market manuals* in effect immediately prior to the market transition, but excluding the *renewed market rules*;

market transition means the process of enabling the *IESO* to administer the *IESO-administered markets* and *dispatch* the *IESO-controlled grid* as a single-schedule system with locational marginal prices, commencing on a date specified by the *IESO* pursuant to MR Ch.7 s.13.2.4.5 and ending on the *market transition completion;*

market transition completion means the date specified by the *IESO* pursuant to MR Ch.7 s13.2A.4 of the *market rules;*

market transition error means an error during a *market transition* determined by the *IESO* based on the criteria in MR Ch.7 s.13.2A.3 of the *market rules;*



Transitional Rules: Facilitating Cutover

As part of Final Alignment, the IESO introduced amendments to the market rules to facilitate cutting over to the renewed market.

"Cutting over" describes the steps that the IESO will take starting on the actual day that the renewed market begins operating and continuing until the transition is complete.

These amendments will also facilitate rolling back to the legacy market, in the unlikely event that that the IESO encounters a problem during the transition that it cannot resolve in a reasonable time.



Overview

Five points summarize the cutover amendments:

- 1. IESO will use a type of market suspension to facilitate cutover to the renewed market;
- 2. Transitional authorities will be limited to the "market transition" period;
- 3. Rollback criteria will be codified in the rules;
- 4. Authority to use the legacy rules will be built into the renewed rules; and
- 5. Entitlement to compensation for all scenarios will be codified in the rules.



Market Suspension

The IESO will use the market suspension process to facilitate the transition to the renewed market. All cutover amendments will be contained within the existing market suspension section.

The amendments will add a new justification for the IESO to suspend the market: a market transition. When the market transition begins, the IESO will be authorized to suspend normal market operations for the purposes of activating and, if necessary, testing, validating, adjusting, or restoring the new market tools.

During the market transition, the IESO may *only* continue the suspension for these purposes.


Market Transition

The IESO's cutover authorities will be limited to the "market transition" period. The amendments will introduce a new defined term of "market transition," which is the time period during which the IESO will take the steps necessary to cutover to the new market.

The rules will authorize the IESO to specify the start time of the market transition in a market advisory notice. Once the IESO is satisfied that the new tools are working properly, the rules will authorize the IESO to specify the end time of the market transition. After this time, the market transition will end and the IESO's cutover authorities will no longer apply.



Rollback Criteria

The rules will authorize the IESO to rollback to the legacy market in the unlikely event of a problem during the market transition period that cannot be resolved.

The rules will codify a three-part test that the IESO will use to determine whether to rollback to the old market. The IESO will rollback to the legacy market where it experiences:

- (a) a critical tool or process failure;
- (b) that has a significant impact to market operations or reliability; and
- (c) the failure cannot be resolved within a reasonable time.



Authority to Use the Legacy Rules

Where the rollback criteria are met, the renewed market rules will authorize the IESO to dispatch the grid and settle the market in accordance with the legacy rules for the legacy market. The authority to use legacy rules will be nested within the renewed rules.

In the unlikely event that the IESO is required to rollback to the legacy market, it will direct participants to comply with the legacy rules, which will remain published, and easily identifiable.



Compensation

The renewed market rules will codify market participants' entitlement to compensation during the market transition.

Market participants will receive the real-time locational market price during the transition, unless this price is invalid or unavailable. Where this occurs, market participants will receive administrative prices.

In the unlikely event of a rollback, market participants will receive compensation in accordance with the legacy rules during the rollback.



Market Transition: suspension process

- Chapter 0.7 section 13.2.4 permits the IESO to suspend the market.
- A new section 13.2.4.5 will permit the IESO to suspend the market for the purposes of a *market transition*.
- This is only permitted for reasons specified in section 13.2A.1*
- Further sections in 13.2A provide the IESO with temporary powers to revert back to the *legacy market rules* in the unlikely event the IESO is required to rollback to the legacy market.
- This is only permitted for reasons specified in section 13.2A.3*



Completion of the Market Transition process

There will be a clear end point to the market transition.

This end point will be determined when the IESO is satisfied that the tools are performing as expected and producing appropriate market outcomes

Details are contained in MR Ch.7 s.13.2A, as shown in the following slides.



Market Transition in Ch. 7

13.2.4 The IESO may suspend market operations in the event of:

13.2.4.5 a market transition, the commencement of which the IESO shall specify in a market advisory notice.

13.2A Market Transition Suspensions

13.2A.1 Where the *IESO* has suspended *market operations* due to a *market transition*, the suspension shall be for the purposes of activating and, if necessary, testing, validating, adjusting, or restoring the software, hardware or communication systems that support normal *market operations*.

13.2A.2 Where the *IESO* has suspended *market operations* due to a *market transition* and the *IESO* determines pursuant to section 13.2A.3 that a *market transition error* has occurred, the *IESO* may *dispatch* the *IESO-controlled grid* and administer the *IESO-administered markets* in accordance with the *legacy market rules,* which the *IESO* shall *publish*. During any *dispatch hour* subject to such *dispatch* and administration, any *price responsive load* shall for all purposes be deemed a *non-dispatchable load*.



Market Transition in Ch.7

13.2A.3 The *IESO* may determine that a *market transition error* has occurred where it considers that:

13.2A.3.1 the software, hardware, communication systems or business processes that support normal *market operations* have experienced a critical failure;

13.2A.3.2 this failure would prevent the *IESO* from *dispatching* the *IESO-controlled grid* or administering the *IESO- administered markets* in a manner consistent with normal *market operations* or *reliability*; and

13.2A.3.3 the *IESO* is unable to resolve the failure within a reasonable time.

13.2A.4 Where the *IESO* is satisfied with the results of the activation, testing, validation, adjustment or restoration performed in accordance with section 13.2A.1, the *IESO* shall issue a market advisory notice pursuant to section 13.7.1 indicating the time at which the suspension shall end. The time specified in this market advisory notice shall be the *market transition completion*.



Navigating the Final Alignment batch



Final Alignment market rule chapters

The following three documents are provided in relation to each market rule chapter:

- 1. Market Rule Amendment Proposal a clean restatement of each chapter of the MRP market rules (the "0-Series") on which the TP will vote to recommend/IESO Board will consider for formal approval.
- 2. FA Supplementary: All Amendments a document that shows the consolidated MRP amendments required for the chapter with tracked changes shown against the current baseline of that chapter.
- 3. FA Supplementary: Incremental Amendments a document that shows only excerpts from sections that have been revised since the TP provisionally recommended/IESO Board provisionally approved version with tracked changes.



Other supporting documents

- 1. Market Manuals two documents are provided for each market manual:
 - Final, clean version of the market manual incorporating all required MRP changes; and
 - A version with changes tracked from the most recent version of that market manual published under MRP.

2. Final Alignment Readers Guide

- Explains incremental changes made to each market rule chapter since the provisionally approved version.
- Explains incremental changes made to each market manual since the most recently published version.
- Link to the FA documents: As of June 7: https://www.ieso.ca/Market-Renewal/Background/Final-Alignment-Documents



Placeholder TP Sessions



The Need for Placeholder meetings

- At the February meeting, TP members recommended reserving time for additional TP meeting to potentially review any outstanding batch interdependency considerations
 - \circ A series of dates were proposed at the April TP meeting
- TP members were asked to identify any topics that require additional review and discussion by the end of May:
 - Two members identified potential topics related to the application of market power mitigation. The IESO is reviewing the proposed topics, including exploring opportunities to leverage existing engagement and TP materials



Dates for potential, additional TP sessions

- July 16th 1 to 4pm (afternoon of TP meeting)
- July 23rd 9 to 12pm
- Aug 12th and Aug 15th (9 to 12pm both days)



Next Steps

- TP members to review FA materials posted for stakeholder feedback:
- July 16: Vote to Post
- August 6: Closing date for stakeholder comments and Vote to Post comments
- September 10: Vote to Recommend





ieso.ca

1.888.448.7777

customer.relations@ieso.ca

engagement@ieso.ca





Appendix



FA Batch Technical Panel Overview: Timeline



