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Market Renewal Energy | Market Rules and Manuals Batch Education: Market Power Mitigation (MPM)

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Agenda

- Purpose
- Market Power Mitigation (MPM) Background
- Next steps

Purpose

Prepare the Technical Panel for the subsequent walkthrough of the MPM Batch documents:

- Explain the fundamental concepts of MPM
- Describe key terms and processes
- Share the ways stakeholders engaged in and contributed to the design of the MPM processes



Market Power Mitigation: Background

Market Power

- A market thrives when there is open competition among many market participants
- When competition is restricted, market participants have the ability to raise and maintain prices above the level that would prevail under competition
- This can lead to inefficient market outcomes and increased costs for consumers

Exercising Market Power

- There are a number of different ways that market participants can attempt to exercise market power:
 - **Economic withholding:** Market participants submit offer prices that are too high
 - **Physical withholding:** Market participants submit offer quantities that are too low

Mitigation Frameworks

Current Framework

- Exercise of market power has limited impact on uniform market clearing price and dispatch schedules
 - Primarily influences payments to the resource exerting market power, not market settlement prices as a whole
- After-the-fact (ex-post) investigation and enforcement

MRP Framework

- Exercise of market power can materially impact locational marginal prices and dispatch schedules
 - Influences prices for all resources within a constrained area
- Mitigation to prevent any impact where possible
- Mitigation to reduce the incentive where acting to prevent impact is infeasible (e.g. physical withholding)

Market Power Mitigation

- Market power mitigation describes the ways that the IESO assesses and responds to attempts to exercise market power
- The IESO will generally use **conduct tests** and **impact tests** to do this assessment:
 - **Conduct test:** Did a market participant submit dispatch data that was significantly different than they would have under competitive conditions?
 - **Impact test:** Were prices or make-whole payments determined using the submitted dispatch data significantly higher than what they would have been under competitive conditions?

Reference Levels

- The IESO will use reference levels and reference quantities in the conduct test and impact test:
 - Reference levels and reference quantities are compared to submitted dispatch data to assess if a resource fails the conduct test
 - If a resource fails the impact test, reference levels and reference quantities are used to replace the submitted dispatch data when the IESO determines schedule, price and settlement

Reference Levels (cont'd)

Reference Levels are:

- Estimates of dispatch data that would have been submitted under competitive pressures
 - financial dispatch data related to costs (e.g. energy offer reference level (\$/MWh))
 - non-financial dispatch data related to operational capability (e.g. MLP reference level (MW))
- Approved by the IESO with input from market participants
- Used to assess validation, ex-ante and settlement mitigation

Reference Levels: HLD Phase

- During the High Level Design phase, the IESO identified a number of options to base reference levels on:
 - Short-run marginal costs
 - Historical offers
 - Historical LMPs
- Recognizing stakeholder feedback, the IESO determined that reference levels would be based on short-run marginal costs

Reference Levels: Detailed Design Phase

In response to stakeholder feedback during engagement during detailed design, the IESO further refined the design of reference levels, including:

- Introduction of the independent review process to allow market participants to request a third party review of certain aspects of reference levels or reference quantities
- Updates to timing requirements regarding changes to non-financial reference levels
- Removal of an obligation to update reference levels when short-run marginal costs decrease

Reference Quantities

- Reference Quantities are:
 - Estimates of **available supply** of **energy** or **operating reserve** at the resource
 - Representative of the quantities that would have been offered under competitive pressures
 - Approved by the IESO with input from market participants
 - Used to assess mitigation for physical withholding

Reference Quantities

- The IESO clarified a number of issues related to reference quantities in response to stakeholder feedback stemming from a technical session specifically for physical withholding, including:
 - Updates to the approach for determining the reference quantities for hydroelectric resources
 - Clarifying the basis of reference quantities: based on available capacity rather than contracted capacity

Reference Levels and Reference Quantities: Implementation

The IESO is currently in the process of carrying out one-on-one consultations for dispatchable suppliers of energy and operating reserve to determine resource-specific:

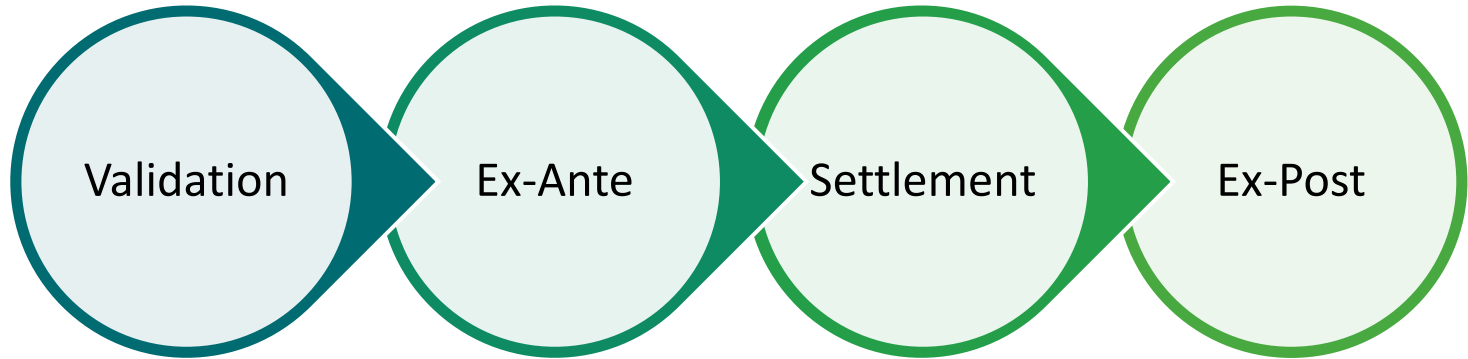
- Reference levels
- Reference quantities

Market participants are working collaboratively with the IESO in this process, making considerable progress, and the IESO is reporting on these efforts to stakeholders

Market Control Entity

- MRP introduces Market Control Entities:
 - Have the ability to control or influence the participation of a market participant in the future day-ahead market and real-time market
 - Can be an entity registered with the IESO or external to the IESO
 - New MRP registration data to be provided by Market Participants
 - Are used when assessing mitigation for physical withholding. The offer quantities of resources that share a common Market Control Entity are assessed in aggregate

Market Power Mitigation Processes



Validation

Validation of operational dispatch data when **dispatch data** is **submitted**:

- Was the operational dispatch data submitted by the market participant consistent with the relevant operational characteristics of the resource?
- This test under validation affords market participants a margin or conduct threshold to ensure that valid dispatch data passes the test

If the **submitted dispatch data** is outside this tolerance, it is **rejected**.

Ex-Ante

Assessment of mitigation carried out as part of DAM and PD engines:

- Was competition restricted?
- Did the resource fail the conduct test?
- Did the resource fail the impact test?

If the answer to all three is 'yes', the IESO replaces dispatch data with reference levels in order to determine prices and schedules

Ex-Ante

- The IESO consulted stakeholders on guidelines for the conduct and impact thresholds during HLD.
- During detailed design, the IESO stakeholdered the specific values of the conduct and impact thresholds which were based on:
 - The HLD guidelines
 - Experience from other jurisdictions
 - Stakeholder feedback
 - IESO experience from the current mitigation framework

Settlement

Assessment of mitigation carried out as part of **settlement process**:

- Was competition restricted?
- Did the resource fail the conduct test?
- Did the resource fail the impact test?

If the answer to all three is 'yes', the IESO replaces dispatch data with reference levels in order to determine **make-whole payments**

Ex-Post

Assessment of mitigation carried out **after-the-fact** and asks the same 3 questions as ex-ante and settlement mitigation:

- Was competition restricted?
- Did the resource fail the conduct test?
- Did the resource fail the relevant impact test?

If the answer to all three is 'yes', the IESO applies a **settlement charge**

Ex-Post

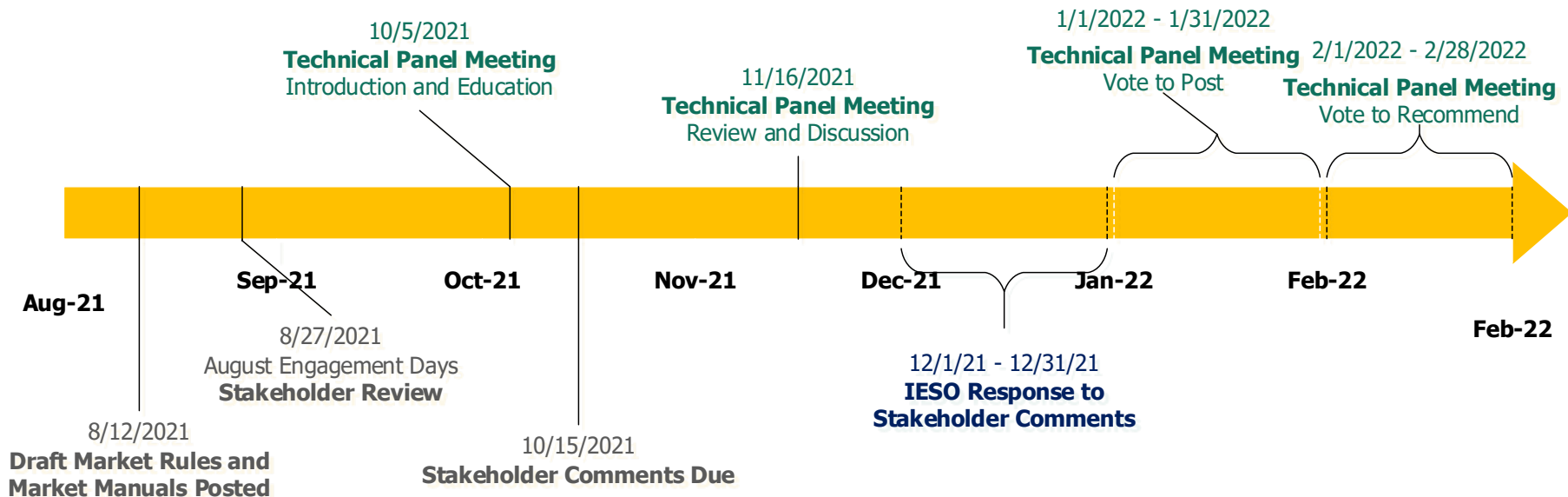
- The IESO made a number of changes in response to stakeholder feedback:
 - Removal of the requirement to identify market participants who were found to have physically withheld
 - Updates to the physical withholding design to appropriately account for the current dispatch deviation market rules
 - Updates to the physical withholding conduct tests to account for small resources

MPM Background: Synopsis

Prepared the Technical Panel for the subsequent walkthrough of the MPM Batch documents:

- ✓ Explained the fundamental concepts of MPM
- ✓ Described key terms and processes
- ✓ Shared the ways stakeholders engaged in and contributed to the design of the MPM processes

Next Steps: MPM Batch Technical Panel Engagement



Thank You

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Appendix: Technical Panel Overview

Batch 2 Technical Panel overview

Meeting 1 - Education Session

- Design Level
- Summarizes key design elements from MRP
- Confirmation of near term timelines for TP review and engagement

Meeting 2 – Review and Discussion Session

- Draft Rules (pre-stakeholder review) walk-through and discussion
- Highlights key drafting elements and implementation strategies
- Initial questions from TP and confirm length for Meeting 3

Batch 2 Technical Panel overview (cont'd)

Meeting 3 - Vote to Post

- Extended session to present proposed rule amendments (post-stakeholder review) and to discuss initial questions from Panel members prior to vote
- Meeting will highlight stakeholder comments and actions taken by IESO
- IESO staff and TP Secretariat may contact Panel members directly to collect additional information or to clarify comments in advance of Meeting 4 (a list of any such feedback and resolution will be shared with all TP members)
- Confirm length for Meeting 4

Batch 2 Technical Panel overview (cont'd)

Meeting 4 – Vote for Provisional Recommendation

- Extended Session to discuss proposed rule amendments and to address panel member questions
- Discussion will include a summary of any direct conversations with panel members since previous meeting and provide feedback to any questions and/or comments
- A panel of IESO staff will present the final proposed materials so as to be able to respond to questions and issues within the meeting