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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:

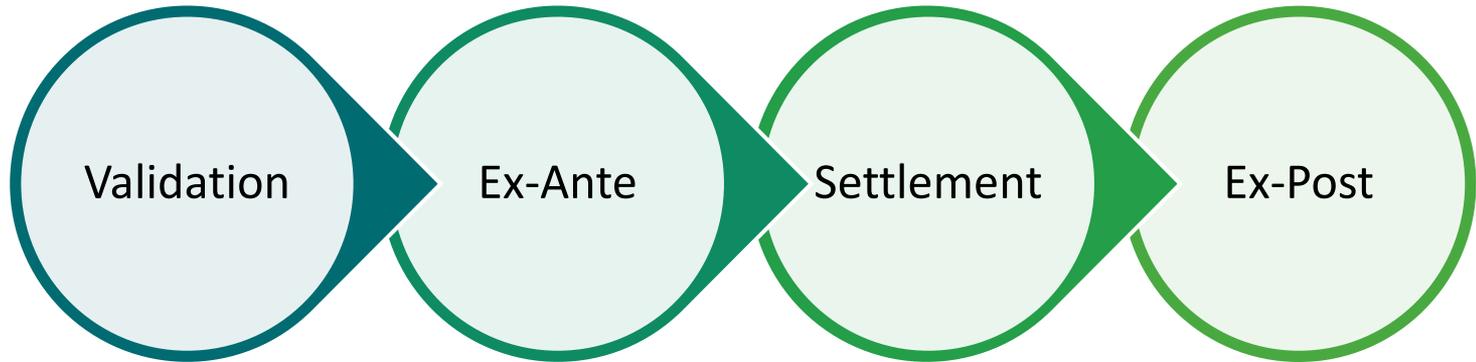
- Reference levels
- Reference quantities

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

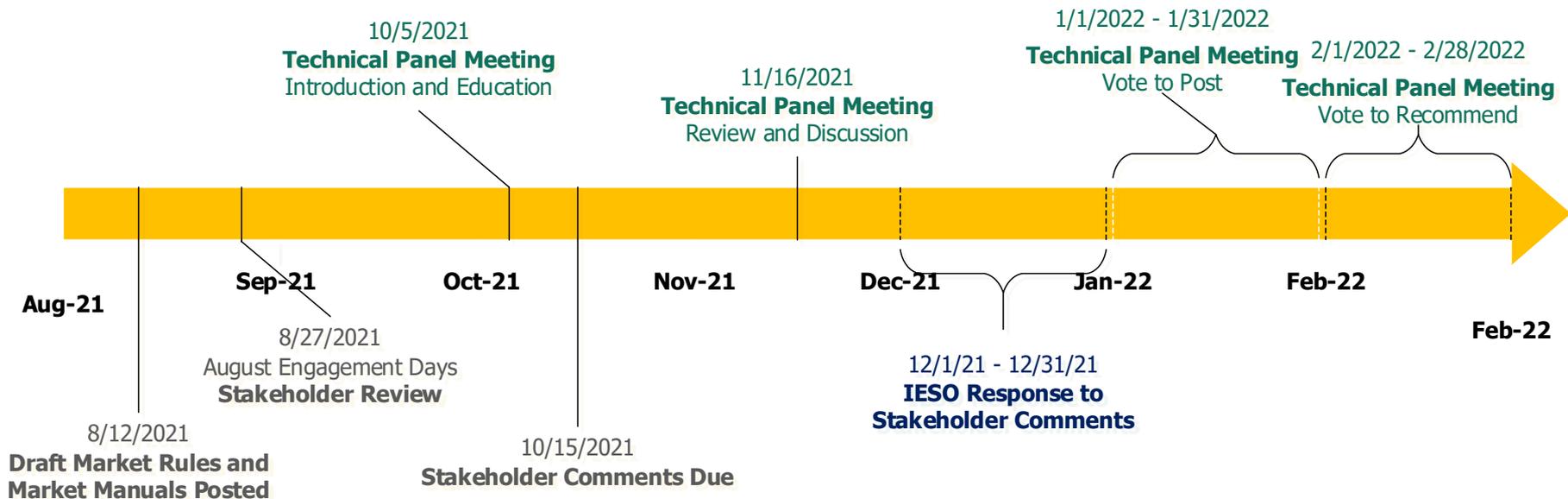
- The IESO made a number of changes in response to stakeholder feedback:
  - Removal of the requirement to identify market participants who were found to have physically withheld
  - Updates to the physical withholding design to appropriately account for the current dispatch deviation market rules
 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



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# 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