

NOVEMBER 16, 2021

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

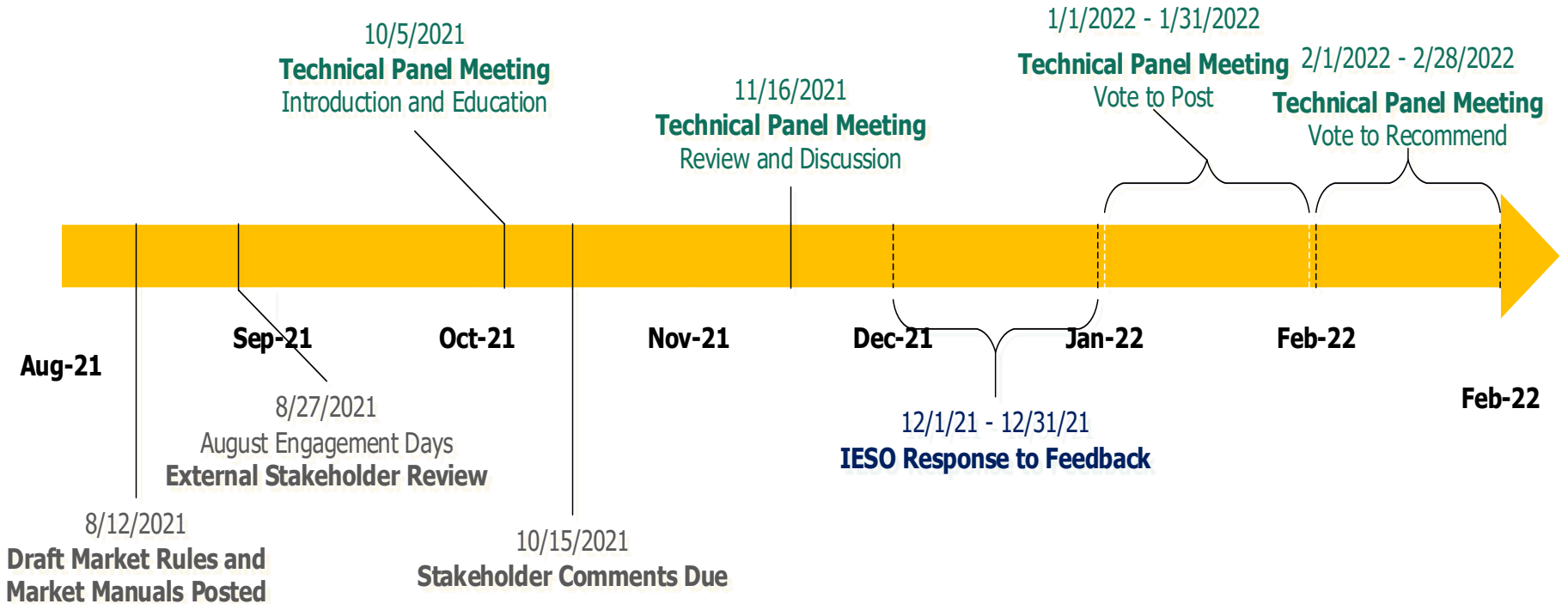
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Agenda

- Timeline for technical panel meetings on the MPM Batch Market Rules and Market Manuals
- Purpose
- Summary of the MPM Batch Market Rules and Market Manuals
- Topics addressed in the MPM Batch
- Stakeholder feedback
- Next steps

MPM Batch Technical Panel Overview: Timeline



Purpose

Prepare the Technical Panel to review the MPM batch documents:

- Summarize the documents in the batch
- Describe the topics within the documents
- Outline the feedback that we received on the MPM batch documents, describing the themes of comments.



Market Power Mitigation: Batch Summary

Market Rules and Market Manuals

MPM Batch Market Rules and Manuals

Market Rules

Market rule provisions that describe the obligations and authorities regarding market power mitigation, including new defined terms.

Chapter 11 - Definitions
Chapter 7
Chapter 3 (single provision)

Market Manual 14.1: Market Power Mitigation Procedures

Describes the procedures that support market power mitigation (e.g., designation of constrained zones).

Market Manual 14.2: Reference Level and Reference Quantity Procedures

Describes the procedures that support determination and calculation of reference levels and reference quantities.

MPM Batch Market Rules and Market Manuals: Conforming Changes Refresher

1st Batch Changes



2nd Batch Changes (MPM)

+ 1st Batch Conforming



3rd Batch Changes

+ 1st, 2nd Batch Conforming



4th Batch Changes

+ 1st, 2nd, 3rd Batch Conforming



5th Batch Changes

+ 1st, 2nd, 3rd, 4th Batch Conforming

There may be occasions where the IESO needs to revise an earlier batch to be consistent with a subsequent batch. These revisions will be known as 'conforming changes'

For the MPM batch, there are conforming changes to MM 1.3 and MM 1.5.

MPM Batch Market Rules and Market Manuals: Conforming Changes

Market Manual 1.3: Identity Management Operations Guide

Describes the way that participants manage assignments of the roles required to interact with the IESO in various capacities.

Market Manual 1.5: Market Registration Procedures

Describes the way that market participants are registered to participate in the IESO-administered markets.

MPM Batch Market Rules and Market Manuals: Conforming ChangesConforming Changes, Market Manual 1.3

| Change Description | Market Manual Section |
|---------------------------------------|------------------------------|
| Added Market Power Mitigation Contact | Appendix B |

MPM Batch Market Rules and Market Manuals: Conforming Changes, Market Manual 1.5

| Change Description | Market Manual Section |
|--|------------------------------|
| Updated section cross-references to account for new content elsewhere in the market manual regarding reference levels, reference quantities and market control entities | 1.3.1 |
| Added new IESO responsibilities related to reference levels, reference quantities and market control entities | |
| Added content to reflect that prospective market participants seeking authorization as a subset of participation types are required to disclose market control entities and a market control entity for physical withholding | 2.2.1 Table 2-2 |

MPM Batch Market Rules and Market Manuals: Conforming Changes, Market Manual 1.5

| Change Description | Market Manual Section |
|---|------------------------------|
| Updated the content describing market control entity and market control entity for physical withholding | 3.1.5 Table 3-2 |
| Added new section to describe the requirements to register reference levels for financial dispatch data parameters, non-financial dispatch data parameters and reference quantities | 3.2.6 |

MPM Batch Market Rules and Market Manuals: Conforming Changes, Market Manual 1.5

| Change Description | Market Manual Section |
|--|------------------------------|
| Updated table cross references and table titles. These are conforming changes resulting from other incremental changes noted above | 3.5, 3.5.2.1, 3.7.2, 3.7.3 |
| Added Market Control Entity for Physical Withholding to the list of market participant changes | 4.2 |
| Added changes to reference levels and reference quantities to the list of changes for which the IESO will issue a Registration Approval Notification | |
| Added Market Power Mitigation Contact | Appendix A |

MPM Batch Market Rules and Market Manuals: How to Read MPM Batch Documents

Market Rule

Market Manual

Impact Test – Energy

22.15.7 The IESO may apply an impact test for *physical withholding* to the *energy offers* of a *registered market participant* for a *resource* that had an *energy offer* fail any of the conduct tests in section 22.15.4. An *energy offer* will fail the impact test if:

- 22.15.7.1 the resource met the condition in 22.15.3.3 and the resource's simulated as-offered energy LMP is greater than the resource's simulated reference quantity energy LMP by the lesser of 50% or \$25/MWh;
- 22.15.7.2 the resource met the condition in 22.15.3.4 and the resource's simulated as-offered energy LMP is greater than the resource's simulated reference quantity energy LMP by the lesser of 50% or \$25/MWh;
- 22.15.7.3 the resource met the condition in 22.15.3.5 and the resource's simulated as-offered energy LMP is greater than the resource's simulated reference quantity energy LMP by the lesser of 100% or \$50/MWh; or
- 22.15.7.4 the resource met the condition in 22.15.3.6 and the resource's simulated as-offered energy LMP is greater than the resource's simulated reference quantity energy LMP by the lesser of 100% or \$50/MWh.

5.6. Impact Tests: Procedural Steps and Timelines

(Market Rules: Chapter 7, sections 22.15.18-22.15.26)

The IESO applies impact tests for *energy* and *operating reserve* in accordance with the conditions set out in **MR Ch.7, ss. 22.15.7-22.15.9**, and **MR: Ch.7, s. 22.15.15-22.15.17**, respectively.

Details with respect to the procedural steps and timelines associated with impact tests, including timelines related to first and second notices of *physical withholding* assessments, are set out in **MR: Ch.7, ss.22.15.18-22.15.26**.



Market Power Mitigation: MPM Batch Topics

Background: MPM Topics in Future Batches

Market Entry and Prudential Security

Market Power Mitigation

Calculation Engines

Market Settlement, Metering, and Billing

Market and System Operations

Ex-ante mitigation

Settlement mitigation

MPM Batch Topics: Timeline

During Registration (e.g., determine reference levels)

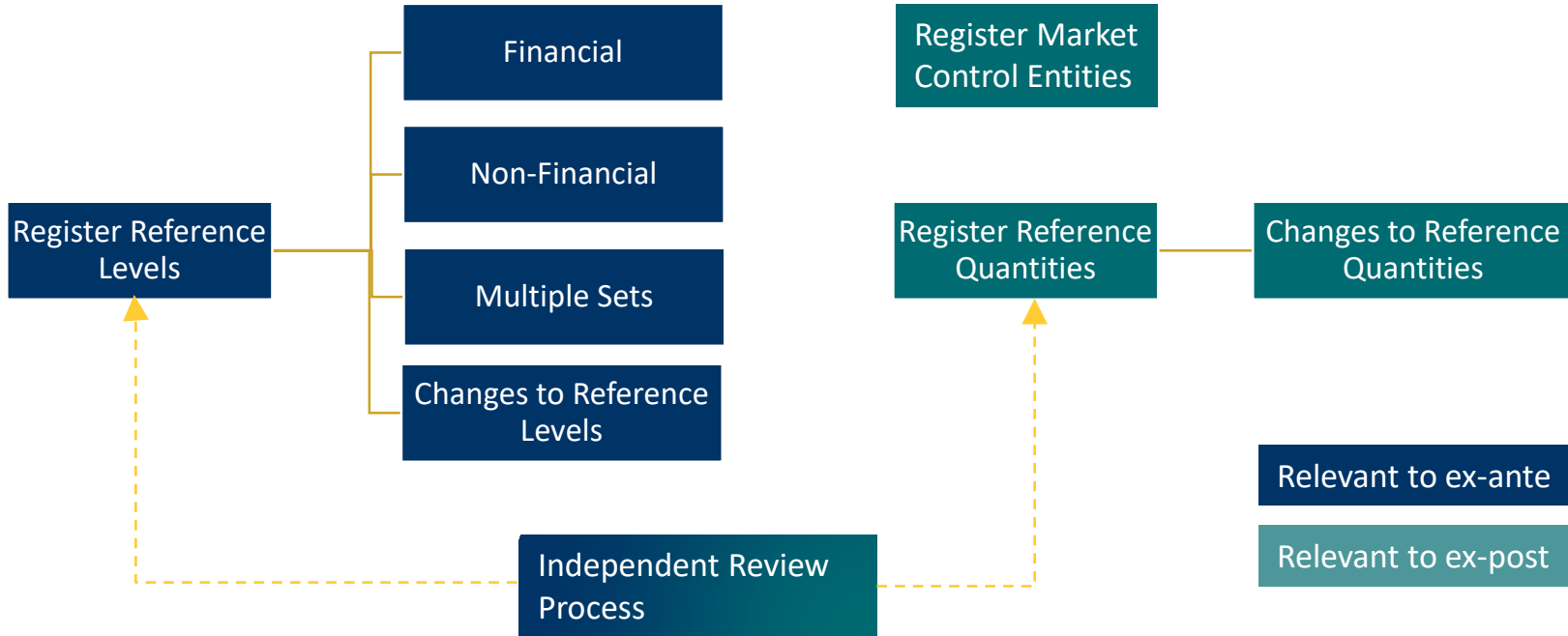
Prior to Running the Market (e.g., designate constrained areas)

During Market Execution (e.g., fuel cost change requests)

During Market Settlement (e.g., reference level settlement charge)

Following Settlement (e.g., ex-post mitigation for physical withholding)

MPM Batch Topics: During Registration



MPM Batch Topics: During Registration, Market Rules – Chapter 7

| Topic | Market Rule Section |
|---|----------------------------|
| Reference Levels - General | 22.1 |
| Reference Levels for Financial Dispatch Data Parameters | 22.2 |
| Reference Levels for Non-Financial Dispatch Data Parameters | 22.3 |
| Resources with Multiple Sets of Reference Levels | 22.4 |
| Changes to Reference Levels | 22.5 |

MPM Batch Topics: During Registration, Market Rules – Chapter 7

| Topic | Market Rule Section |
|-----------------------------------|----------------------------|
| Reference Quantities | 22.6 |
| Revisions to Reference Quantities | 22.7 |
| Independent Review Process | 22.8 |
| Market Control Entities | 22.9 |

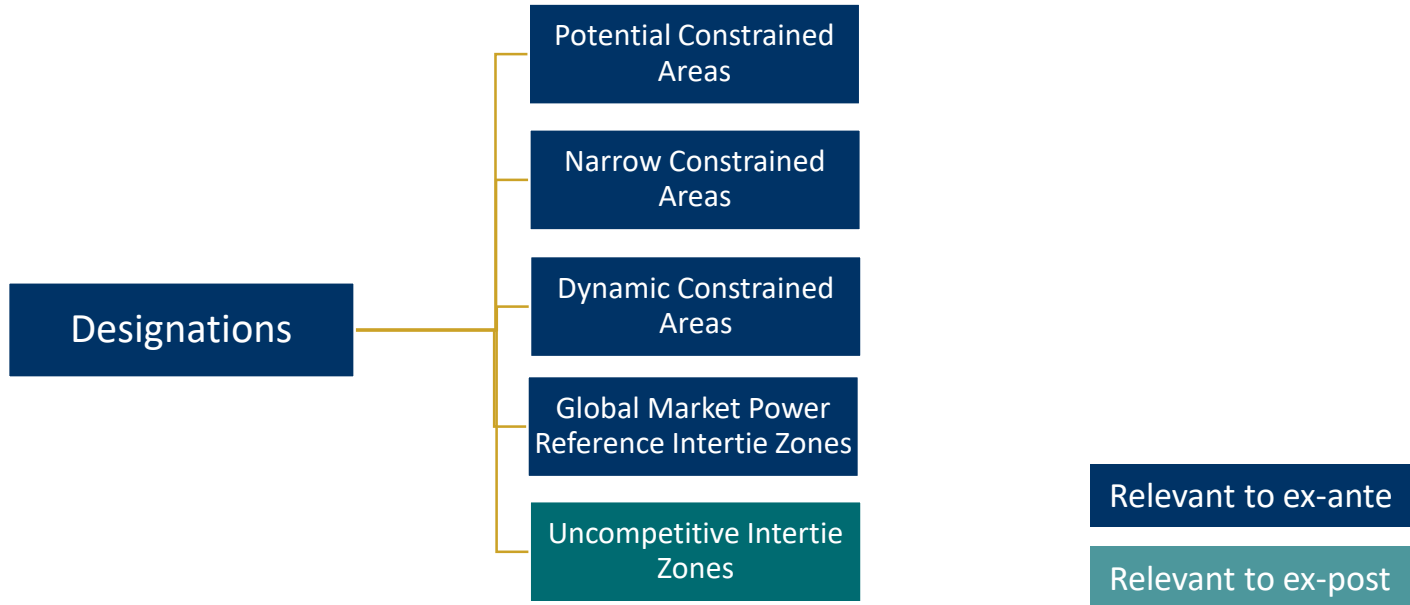
MPM Batch Topics: During Registration, Market Rules – Chapter 3

| Topic | Market Rule Section |
|---|----------------------------|
| Notice of Dispute related to Independent Review Process | 2.5.1A.6 |

MPM Batch Topics: During Registration, Market Manual 14.2

| Topic | Market Manual Section |
|--|------------------------------|
| Overview of Reference Levels and Reference Quantities | 2 |
| Determine and Update Reference Levels and Reference Quantities | 3 |
| Reference Level and Reference Quantity Reports | 4 |
| Cost Components of Financial Dispatch Data Parameters | 6 |
| Reference Levels for Financial Dispatch Data Parameters | 7 |
| Reference Levels for Non-Financial Dispatch Data Parameters | 8 |
| Reference Quantities | 9 |

MPM Batch Topics: Prior to Running the Market



MPM Batch Topics: Prior to Market, Market Rules – Chapter 7

| Topic | Market Rule Section |
|---|----------------------------|
| Designation of Constrained Areas – Potential Constrained Areas, Narrow Constrained Areas, and Dynamic Constrained Areas | 22.10 |
| Global Market Power Reference Interties Zones | 22.11 |
| Uncompetitive Intertie Zones | 22.12 |

MPM Batch Topics: Prior to Market, Market Manual 14.1

| Topic | Market Manual Section |
|---|------------------------------|
| Designation of Constrained Areas | 2 |
| Designation of Uncompetitive Intertie Zone Status | 3 |
| Determination of Global Market Power Reference Intertie Zones | 4 |

MPM Batch Topics: Market Execution

Validation of Non-Financial Dispatch Data

Request to Use High Cost Profile

Fuel Cost Change Requests

Ex-Ante Mitigation

Determine Intertie Reference Levels

Described in Batch 5 market rules and market manuals

Relevant to ex-ante

Relevant to ex-post

MPM Batch Topics: Market Execution, Market Rules – Chapter 7

| Section Description | Market Rule Section |
|--|----------------------------|
| Changes to Reference Levels | 22.5 |
| Ex-Ante Validation of Non-Financial Dispatch Data Parameters | 22.13 |
| Intertie Reference Levels | 22.17 |

MPM Batch Topics: Market Execution, Market Manual

14.2

| Section Description | Market Manual Section |
|---|------------------------------|
| Temporary Reference Level Change Requests | 5 |

MPM Batch Topics: Market Settlement

Reference Level
Settlement Charge

Settlement Mitigation

Settlement mitigation will
be described in Batch 4
market rules and market
manuals

Relevant to settlement

MPM Batch Topics: Following Settlement - Ex-Post Mitigation

Physical Withholding

- Energy Price Impact
- Operating Reserve Price Impact

Intertie Economic Withholding

- Energy Price Impact
- Operating Reserve Price Impact
- Make-whole Payment Impact

Relevant to ex-post

MPM Batch Topics: Following Settlement, Market Rules

– Chapter 7

| Section Description | Market Rule Section |
|---|----------------------------|
| Ex-Post Mitigation of Physical Withholding | 22.15 |
| Intertie Economic Withholding on an Uncompetitive Intertie Zone | 22.16 |
| Mitigation for Make-Whole Payment Impact on Uncompetitive Interties | 22.18 |
| Intertie Economic Withholding – Procedural Steps and Timelines | 22.19 |

MPM Batch Topics: Following Settlement, Market Manual 14.1

| Topic | Market Manual Section |
|---|------------------------------|
| Ex-Post Mitigation for Physical Withholding | 5 |
| Ex-Post Mitigation for Economic Withholding on an Uncompetitive Intertie Zone | 6 |



Market Power Mitigation: Stakeholder Feedback

Stakeholder Engagement Materials



Market Rules and Market
Manuals amendments



Stakeholder Engagement
Presentation

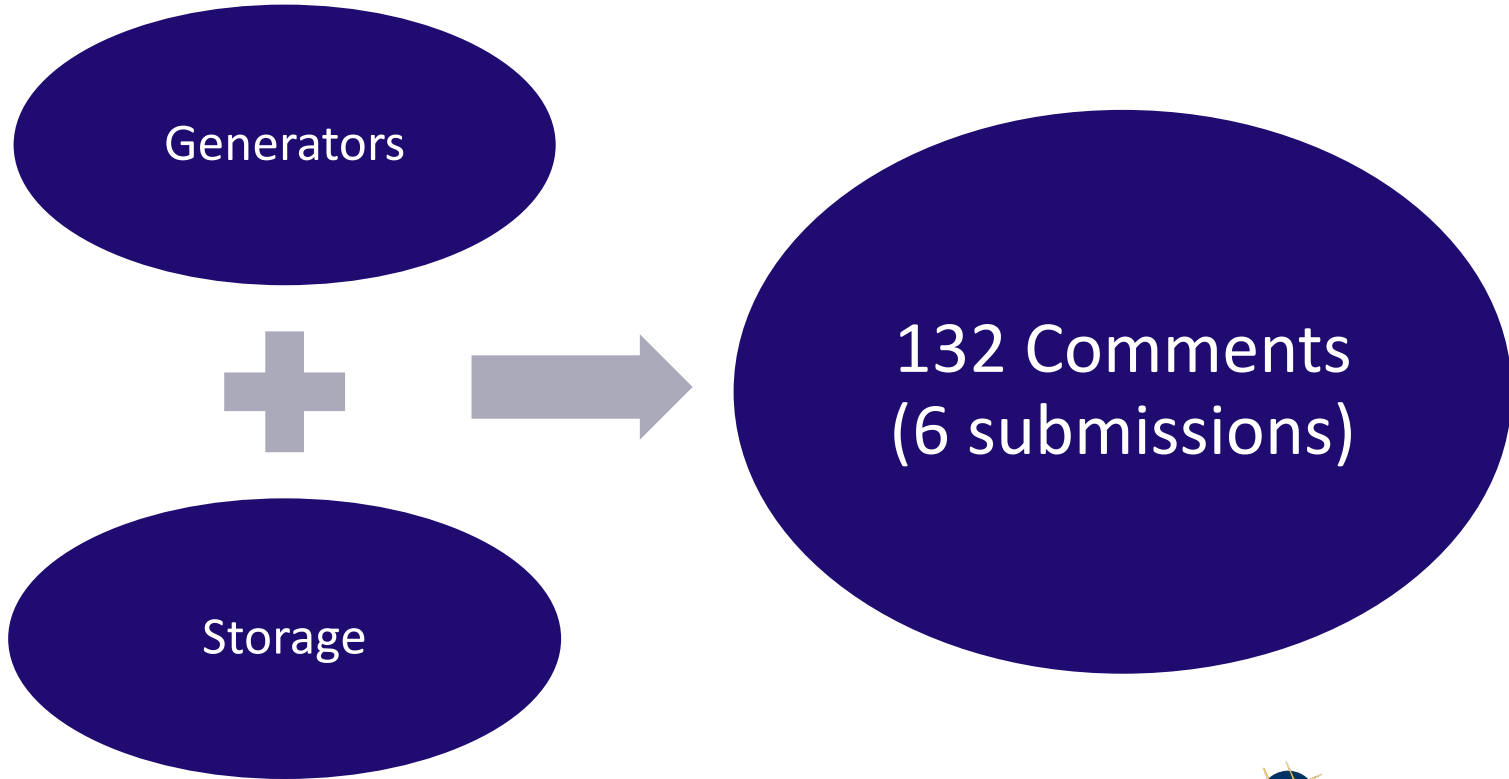


Guide to reading the
amendments

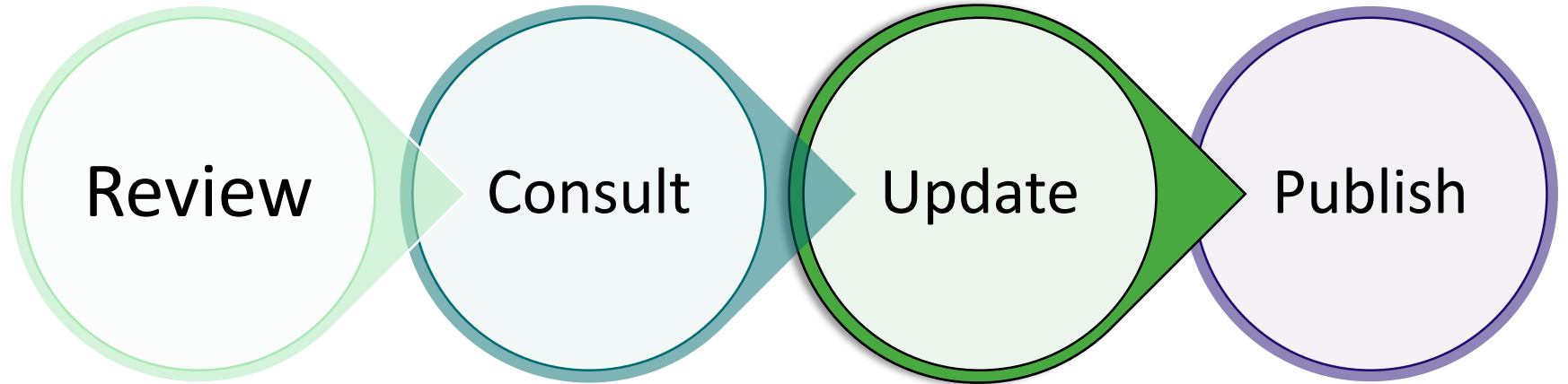


Stakeholder feedback when
available

MPM Batch Stakeholder Feedback: Data



MPM Batch Stakeholder Feedback: Data



MPM Batch Stakeholder Feedback: Themes

| Comment Type | Comments |
|--------------------------------|----------|
| Clarification | 63 |
| Request for Change in Approach | 22 |
| Content supplement | 21 |
| Editorial | 14 |
| Ongoing updates | 6 |
| Placement of content | 6 |

MPM Batch Stakeholder Feedback: Themes

| Topic | |
|--|-------------------------------------|
| Process to establish reference levels (41) | Market control entities (5) |
| Language (19) | Reporting (5) |
| Constrained zones (14) | Reference level change requests (4) |
| Mechanics of mitigation (13) | Dispute Resolution (3) |
| Physical withholding (13) | Technical panel process (1) |
| Independent Review Process (7) | Validation (1) |
| Uncompetitive interties (6) | |



Market Power Mitigation: Next Steps

MPM Batch: Next Steps

- IESO will post responses to stakeholder feedback and updated MPM Batch documents in December 2021
- Technical Panel will meet for the vote to post in January 2022
- Technical Panel will meet for the vote to recommend in February 2022

Thank You

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