

# Market Renewal Program Feedback Form

## Market Renewal – Final Alignment Documents – June 7, 2024

### Feedback Provided by:

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Date: August 14, 2024

To promote transparency, feedback submitted will be posted on the Implementation Engagement webpage unless otherwise requested by the sender.

The Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the Final Alignment batch of Market Rules and Market Manuals amendments.

**Please submit feedback to [engagement@ieso.ca](mailto:engagement@ieso.ca) by August 6, 2024.** If you wish to provide confidential feedback, please mark the document "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

## Market Rules Chapter 0.11 (Definitions)

What feedback do you have on Market Rules Chapter 0.11 (Definitions)?

Section / Topic	Feedback
Pseudo-unit Definition	The definition of pseudo-unit is clear and does not include the limitations IESO has presented in the IESO Market Manual 1.5. In IESO Definitions, Chapter 11: "pseudo-unit means a dispatchable generation resource associated with a combined cycle plant that is modeled based on a gas-to-steam relationship between one combustion turbine generation resource and a share of one steam turbine generation resource at the same combined cycle plant;". In IESO Market Manual 1.5, Final Alignment Batch, IESO included a new element to the qualification of a facility to participate with the PSU model that changes the participation opportunity for market participants. Feedback on this change is in the appropriate section below.

## Market Rules Chapter 0.1

What feedback do you have on Market Rules 0.1?

Section / Topic	Feedback
Introduction and Interpretation of The Market Rules	Market participants would benefit from IESO publishing a Point in Time Market Rules version matrix including current real-time operations Market Rules, transitional Market Rules start- and end-, and post-MRP go-live enduring Market Rules.

## Market Rules Chapter 0.2

What feedback do you have Market Rules Chapter 0.2?

Section / Topic	Feedback
Drafting Errors	IESO's Final Alignment Batch File MR CH.0.2. Proposal noted in the footer as IMO_FORM_1087V13.0 REV -21-06 has "Error! Reference source not found" within section 4.1.4. in two locations.
Drafting Errors	Footer information in the file miscounts the number of pages, finishing on "page 75 of 80" in the final alignment batch file.
Drafting Errors	Tab/spacing error identified in section 5.2.7A, on page listed as "page 9 of 80".

Section / Topic	Feedback
Section 5.3.10A	<p>The calculations for minimum trading limit and default protection amount for generation, electricity storage, dispatchable load or price responsive load amend to reflect the changing MRP price dynamics, requiring 3-years historical LMP in DAM and RTM for dispatchable or historical shadow prices until such time as the 3 years LMP values are available.</p> <p>As written in 5.3.10A.4, where neither of the above is available, “the IESO may use such published prices as the price basis.”</p> <p>It is unclear how IESO will apply this methodology to new entrant market participants whose resources will not have established either historical LMPs or historical shadow prices for their own facilities on which to base the calculations. Will IESO apply OEB published prices or replacement shadow prices for published nodes IESO deems relevant. What decision criteria does IESO to identify a relevant node for use.</p>
Section 5.7.2 Obligation to Provide Prudential Support for Physical Transactions, and Section 5B.4.2 Obligation to Provide Capacity Prudential Support	<p>IESO has enabled physical market participants to provide Prudential Support as 5.7.2.1 Letter of Credit, 5.7.2.2 non-affiliate guarantee, 5.7.2.3 marketable securities, 5.7.2.4 affiliate guarantee, 5.7.2.5 cash if an MP prior to 2004 and low obligation.</p> <p>IESO allows Capacity Market Participants only 5B.4.2 Letter of Credit.</p> <p>This discrepancy in acceptable form of Prudential Support should be reconsidered such that IESO aligns the acceptable forms of PSO across participant types. In particular, where a CMP is also a physical MP, its Capacity Prudential Support should be satisfied with the same form of prudential support already approved by IESO for its market participation activities.</p>

## Market Rules Chapter 0.3

What feedback do you have Market Rules Chapter 0.3?

Section / Topic	Feedback
Dispute Resolution Section 2.5.1A.4H	This section relates to the timeline related to submitting a Notice of Dispute following a Market Power Mitigation Independent Review Process. The IESO has provided 22 business days following the day on which ISO registers reference levels and reference quantities following the IRP. There is concern that the recourse available for unintended consequences of a largely untested Market Power Mitigation framework will prompt a higher volume of Disagreements, Independent Reviews, and Disputes. It is unclear whether Participants will have sufficient information from IESO in the determination of mitigation conditions to support agreement or disagreement with IESO decisions. It is advisable that IESO include a transitional process to enable recourse for MPM-related errors/disagreements/disputes/reviews for market participants in a timely manner to pre-empt the formal Dispute Resolution process, as much as possible.

## Market Rules Chapter 0.4

What feedback do you have on Market Rules Chapter 0.4?

Section / Topic	Feedback
	No comments.

## Market Rules Chapter 0.5

What feedback do you have on Market Rules Chapter 0.5?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Rules Chapter 0.6

What feedback do you have Market Rules Chapter 0.6?

Section / Topic	Feedback
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## Market Rules Chapter 0.7

What feedback do you have on Market Rules Chapter 0.7?

Section / Topic	Feedback
	IESO's Chapter 7

## Market Rules Chapter 0.7 Appendices

What feedback do you have on Market Rules Chapter 0.7 Appendices?

Section / Topic	Feedback
Self-scheduling generation	These appendices have grown from 196 to 507 pages, and include detailed formulas and references that are impossible to interpret upon reading. A detailed analysis or review of this material is not possible. In reviewing this section specifically to identify the treatment of self-scheduling resources, it is noted that the term self-scheduling is absent from the appendix. It is not clear where this dispatch data is integrated as a market participant input into the IESO's dispatch scheduling and pricing processes.

## Market Rules Chapter 0.8

What feedback do you have on Market Rules Chapter 0.8?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Rules Chapter 0.9

What feedback do you have on Market Rules Chapter 0.9?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Rules Chapter 0.9 Appendices

What feedback do you have on Market Rules Chapter 0.9 Appendices?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Rules Chapter 0.10

What feedback do you have on Market Rules Chapter 0.10?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Rules Chapter 9 Notice of Disagreements

What feedback do you have on Market Rules Chapter 9 Notice of Disagreements?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.1.3 – Identity Management Operations Guide

What feedback do you have on Market Manual 0.1.3 – Identity Management Operations Guide?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.1.5 – Market Registration

What feedback do you have on Market Manual 0.1.5 – Market Registration?

Section / Topic	Feedback
Section 3.3.4.1	See comments below re: pseudo unit eligibility.

## Market Manual 0.4.1- Submission of Dispatch Data in RT Energy and OR Markets (formerly 4.2)

What feedback do you have on Market Manual 0.4.1 – Submission of Dispatch Data in RT Energy and OR Markets (formerly 4.2)?

Section / Topic	Feedback
Pseudo-unit model	See comments below re: pseudo unit eligibility.

## Market Manual 0.4.2- Operation of the Day Ahead Market

What feedback do you have on Market Manual 0.4.2 – Operation of the Day Ahead Market?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

### Market Manual 0.4.3- RT Scheduling of the Physical Markets

What feedback do you have on Market Manual 0.4.3 – RT Scheduling of the Physical Markets?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

### Market Manual 0.4.4- Transmission Rights Auction

What feedback do you have on Market Manual 0.4.4 – Transmission Rights Auction?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

### Market Manual 0.4.5- Market Suspension and Resumption

What feedback do you have on Market Manual 0.4.5 – Market Suspension and Resumption?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

### Market Manual 0.5.3- Submission of Physical Bilateral Contract Data

What feedback do you have on Market Manual 0.5.3 – Submission of Physical Bilateral Contract Data?

Section / Topic	Feedback
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### Market Manual 0.5.4- Prudential Support

What feedback do you have on Market Manual 0.5.4 – Prudential Support?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.5.5- IESO Administered Markets Settlement Amounts

What feedback do you have on Market Manual 0.5.5 – IESO Administered Markets Settlement Amounts?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.5.6- Non-Market Settlement Programs

What feedback do you have on Market Manual 0.5.6 – Non-Market Settlement Programs?

Section / Topic	Feedback
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## Market Manual 0.5.7- Settlements Process

What feedback do you have on Market Manual 0.5.7 – Settlements Process?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.5.8- Settlement Invoicing

What feedback do you have on Market Manual 0.5.8 – Settlement Invoicing?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.5.10- Settlement Disagreements

What feedback do you have on Market Manual 0.5.10 – Settlement Disagreements?



Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.7.1- IESO-Controlled Grid Operating Procedures

What feedback do you have on Market Manual 0.4.1 – Submission of Dispatch Data in RT Energy and OR Markets (formerly 4.2)?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.7.2- Near-Term Assessments and Reports

What feedback do you have on Market Manual 0.7.2 – Near-Term Assessments and Reports?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.7.3- Outage Management

What feedback do you have on Market Manual 0.7.3 – Outage Management?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.7.4- IESO Grid Operating Policies

What feedback do you have on Market Manual 0.7.4 – IESO Grid Operating Policies?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.12- Capacity Auctions

What feedback do you have on Market Manual 0.12 – Capacity Auctions?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## Market Manual 0.14.1- Market Power Mitigation Procedures

What feedback do you have on Market Manual 0.14.1 – Market Power Mitigation Procedures?

Section / Topic	Feedback
Physical Withholding Assessment	Ex-post assessment of physical withholding must be sufficiently flexible as to allow dispatchable load resources to prioritize their core business, and withdraw OR offered capacity, in whole or in part, without being subject to physical withholding. By putting an administrative charge on physical withholding of operating reserve on dispatchable load, the MPM framework is essentially making operating reserve a mandatory part of the operating profile. Please clarify where in the market rules that operating reserve is a mandatory component of a dispatchable energy bid.

## Market Manual 0.14.2- Reference Level and Reference Quantity Procedures

What feedback do you have on Market Manual 0.14.2 – Reference Level and Reference Quantity Procedures?

Section / Topic	Feedback
Physical Withholding Assessment	It is unclear in the documentation how reference quantities for Energy Storage account for duration requirements related to contract and capacity obligations.

## Charge Types and Equations

What feedback do you have on Charge Types and Equations?

Section / Topic	Feedback
Click or tap here to enter text.	Click or tap here to enter text.

## General Comments/Feedback

### Pseudo-Unit Eligibility:

Workbench Energy provides IESO market operations and settlements services to IESO Market Participants, including dispatchable generation, load, and storage facilities, as well as non-dispatchable loads. We facilitate market participation through market registration, operations and settlements. Workbench Energy has been actively engaged in the Market Renewal Program engagements, from high level design through implementation, and is actively participating in the MRP Implementation Working Group and MRP Market Trials. We provide this feedback on the IESO's Final Alignment batch of Market Rules and Manuals from the perspective of our dispatchable, non-quick start, GOG-eligible generation clients.

### Market Manual 1.5 Language

In the final batch release of Market Manual 1.5, Market Registration, the IESO added a specific condition on the registration of pseudo-units that is significantly impactful to specific market participants. Section 3.3.4.1 on page 46, paragraph 3 states, "**The IESO will not approve a pseudo-unit registration request unless all resources designated as part of the pseudo-unit are connected to the IESO-controlled grid at the same connection point.**" This condition is demonstrably different from the application of pseudo-unit eligibility in the current market framework, and represents a significant and impactful change to the operation of specific resources putting MRP readiness at risk, and requiring incremental rule consideration. This new condition of pseudo-unit eligibility is inconsistent with the IESO's definition in Chapter 0.11, "pseudo-unit means a dispatchable generation resource associated with a combined cycle plant that is modeled based on a gas-to-steam relationship between one combustion turbine generation resource and a share of one steam turbine generation resource at the same combined cycle plant;".

There are several facilities registered with the IESO market that operate with the pseudo-unit resource model in the current DACP that this new language would disqualify from continuing to use this participation model in the MRP market design.

### Impact of New Language on MRP Readiness

Workbench Energy and its clients have been preparing tools and processes to align with the MRP rule changes, including development of financial and non-financial reference levels, preparing tools for dispatch data calculation, submission, management, schedule management, dispatch integration and settlement, for pseudo-unit operation.

By introducing this language at this late stage of MRP design, IESO has introduced a gap in the Market Rules that introduces financial risk for affected participants, and adds significant complexity in MRP Participant Readiness activities that are well underway.

Additionally, by introducing this language in a Market Manual instead of within the Market Rules, IESO has introduced a significant change in implementation of design that does not fall under the purview of the Technical Panel or Board of Directors; a potential outcome that erodes confidence in the IESO's engagement with stakeholders.

### Financially Binding Schedule Risk

Dependent physical resources in a cogeneration facility may each be eligible for generation offer guarantees and make-whole payments in both the DAM and RTM. With IESO's DAM, PD and RT engines assessing dependent physical resources independently of one another, there is significant risk of the dispatch engines creating unattainable schedules by:

1. In DAM or PD, scheduling a steam turbine to generate electricity when it has no fuel, that is, when its steam has not been produced by the gas turbine generator and balance of plant equipment from which the steam is generated.
2. In RTM, scheduling a steam turbine to increase or decrease its output when its fuel cannot be similarly controlled.
3. In DAM, PD or RTM, scheduling a steam turbine to provide operating reserve, or to activate its operating reserve, when its supporting gas turbine is not dispatched in parallel.
4. In DAM or PD, scheduling a gas turbine to start and operate at a reference level heat rate that provides the benefit of combined cycle efficiency without scheduling the steam turbine to access that efficiency.

Because DAM schedules are financially binding, these outcomes introduce financial risk to Market Participants that cannot be managed within the set of Market Rules that IESO has developed and included in this final alignment batch.

### **Gaps in Market Rules for Managing Dependent Resources**

If IESO disqualifies currently operating pseudo-unit resources from participating in the MRP DAM and RTM with the pseudo-unit model, the IESO must develop new Market Rules that enable Market Participants with dependent physical resources to participate in the DAM and RTM with GOG eligibility in such a way as to include flexibility for energy and operating reserve offers, in terms of hours, prices, and quantities, to enable the offering of physical resources in a manner that respects technical dependencies without sacrificing cost recovery and without triggering Market Power Mitigation. The IESO Market Rules limit the ability for a resource to change its offers after the first PD cycle has run at 20:00 on the day-ahead, as outlined in Market Rule Chapter 7, Section 3.3.3.4, 3.3.3.5 and 3.3.3.6. Any unattainable schedule for dependent resources issued after 20:00 on the day-ahead cannot be managed by participants with offer changes. For example, if a gas turbine receives a schedule based on combined cycle offers, and the steam turbine does not receive an aligned schedule, the facility cannot increase its gas turbine offer stack to account for the change in efficiency. A steam turbine that receives an unattainable schedule out of the DAM for hours where the gas turbine is not scheduled to operate cannot remove its offers or increase its offers to remove the schedule. It will be financially bound to its DAM schedule, and will have an operational obligation passed into PD which it cannot maintain.

### **Market Power Mitigation Framework Gap**

Under the Market Power Mitigation framework, managing this disconnect in resource scheduling with offers may result in IESO identifying financial or physical withholding on gas or steam turbines. The Market Power Mitigation framework will, as currently scheduled planned, move into production without robust testing, and without sufficient time or opportunity for affected resources to fully re-assess and resubmit MPM Reference Level Workbooks to address the change in eligibility.

The impact of MPM on offers that are structured to manage resource dependencies on GOG-eligible resources is unclear, will be untested, and is not considered in the final alignment batch of MRP rules and manuals.

### **Scheduling Efficiency Loss**

By directing participants with dependent resources in a combined cycle facility to utilize physical offers to align dependent resources, MRP efficiency is lost. The efficiency of 24-hour economic evaluation of 3-part offers for combined cycle resources has been a feature of the IESO's Market Renewal Program.