

Stakeholder Feedback and IESO Response

Market Renewal Program: Market & System Operations and Calculation Engine market rule amendment proposals – Technical Panel May 14, 2024

ID	MP	Section	Feedback	IESO Response
1	Vlad Urukov	MR Ch.7 s.1.2.2	<p>While I understand the applicability of “integrated fashion” when applied to a real time energy and OR markets (i.e., joint optimization), does this term make sense across Day Ahead AND real-time. These are distinct markets with integrated Energy and OR, but not integrated across all four bullets.</p> <p>Why is OR thought as comprised of “physical transactions”. I understand the distinction to “virtual” but perhaps there is more appropriate terminology for reserve, which is a stand by product.</p>	<p>The IESO has removed the phrase “in an integrated fashion” from section 1.2.2 of Chapter 7 as this existing market rules language was applicable to the co-optimization of the energy and operating reserve market.</p> <p>Operating reserve is considered a <i>physical transaction</i> and <i>physical service</i> based upon the definitions in Chapter 11. Chapter 11 defines a <i>physical transaction</i> as the delivery or consumption of a <i>physical service</i>. <i>Physical service</i> is defined as the provision of energy or <i>ancillary services</i>. <i>Operating reserve</i> is included as part of the definition of <i>ancillary services</i>.</p>

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2	Vlad Urukov	MR Ch.7 s.1.6.1	<p>The MMCP is a defined term. I propose the definition is repeated here rather than coming up with new language.</p> <p>The MORP is a defined term. I propose the definition is repeated here rather than coming up with new language.</p> <p>Also, if the "by the IESO board" is a change to MMCP and MORP, propose language is added to Chapter 11 definitions as it exists for "Settlement floor price for energy"</p> <p>Correct ";" to a "." For 1.6.1.4</p>	<p>The IESO has amended section 1.6.1 to delete the redundant descriptions of these terms, as the definitions provide the appropriate descriptions.</p> <p>The authority for the IESO Board to establish MMCP and MORP is not a change to the market rules. The existing language in Chapter 7 sections 4.4.6.1 and 4.4.6.1A provides the IESO board that authority. No further changes to the MMCP or MORP definitions are required. For consistency with the definitions for MMCP and MORP, the definition for "<i>settlement floor price</i>" has been edited to delete "and is established by the IESO Board". This part of the definition is redundant with the language in section 1.6.1 which specifies the IESO Board's authority in specifying the settlement floor price parameter.</p> <p>The IESO has corrected the typographical error in section 1.6.1.4 as suggested.</p>
3	Vlad Urukov	MR Ch.11 Definitions	Can we confirm that variable generation resource is defined. Seems there is a term missing in the latest revision of Ch 11	<p>The IESO confirms that <i>variable generation resource</i> is a defined term included in the defined terms package (MR-00461-R05: Market and System Operations) which supports the MSO batch of market rule amendments:</p> <p><i>variable generation resource</i> means a <i>generation resource</i> associated with a <i>generation facility</i> with a fuel type of wind or solar photovoltaic that (i) has an installed capacity of 5MW or greater, or (ii) that is directly connected to the <i>IESO-controlled grid</i>;</p>
4	Vlad Urukov	MR Ch.7 s.1.6.2	These were subject to public consultation. Check if IESO Board is appropriate and/or additional language should be added to stipulate the process and participant engagement	The IESO Board was provided the authority to establish the floor prices for variable generators and flexible nuclear as part of SE-91: Renewables Integration Initiative, via MR-00381-R03 (Floor Prices for Variable and Nuclear Generation). In the existing market rules, this authority resides in Chapter 7 section 3.5.4A and has been moved to section 1.6.2 in the MSO batch of market rule amendments with limited editorial changes.

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				The IESO intends to continue to consult with stakeholders for any future assessments on the impact of floor prices on system operations, consistent with the process outlined in MR-00381-R03.
5	Vlad Urukov	MR Ch.7 s.1.6.3	What is a "lamination volume limit"?	The energy lamination volume limit is referring to the total number of P-Q pairs a virtual trader can submit across all virtual zones for a dispatch day. The IESO provided an overview of virtual trader participation as part of the MRP Implementation engagement, the presentation can be found here: https://ieso.ca/-/media/Files/IESO/Document-Library/engage/imrm/imrm-20230928-presentation-for-virtual-traders.pdf
6	Vlad Urukov	MR Ch.7 s.1.6.4	Why "for a given dispatch day". Wouldn't the same apply even if it is for a given "hour"? Propose " during a given dispatch day" I don't think "administrative pricing" is defined – "administrative price" is.	The IESO has amended section 1.6.4 to remove "for a given dispatch day" as the market rule would apply in the event of any market suspension. The IESO has replaced references to " <i>administrative pricing</i> " throughout Chapter 7 with the defined term " <i>administrative price</i> ", as applicable.
7	Vlad Urukov	MR Ch.7 s.1.6.6	Use defined terms or at least use "calculation engines". Is it issuance or publication? What is an example of such information?	The IESO has amended section 1.6.6 to replace the use of "engine" with "calculation engine." The IESO has amended section 1.6.6 to replace references to "issuance" with reference to " <i>publication</i> ." Examples of such information are the results of the calculation engines that the IESO is obligated to publish in accordance with Chapter 7 sections 4.7, 5.7 and 6.6.
8	Vlad Urukov	MR Ch.7 s.2.1.1.4	In case there is an active dispute when the new market is operationalized, what reference levels will the IESO use – should that possibility be recognized in the market rules.	The market rules specify which reference levels and reference quantities will be used where a market participant that has elected to use the independent review process for a reference level or reference quantity pursuant to MR Ch.7 s.22.8.2.

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				<p>The first option is to continue the process. However, the resource will not be able to submit bids or offers until the IESO has determined and registered reference levels and reference quantities for it, per MR Ch.7 ss. 22.1.2 and 22.6.2.</p> <p>The second option is that the market participant may request that the IESO discontinue the independent review process. In such cases, the IESO registers the relevant reference level or reference quantity found in the preliminary view. This would permit the market participant to submit bids and offers in the renewed market.</p> <p>Following the market participants request to discontinue the independent review the market participant may re-initiate the process to determine reference levels (or reference quantities, as the case may be) for the reference levels and/or reference quantities that were the subject of the initial independent review process.</p> <p>The IESO would subsequently issue a new preliminary view regarding those reference levels and reference quantities and the market participant could request a new independent review of those reference levels and reference quantities pursuant to MR Ch.7 s.22.8.2.</p>
9	Vlad Urukov	MR Ch.7 s.2.1.3, 2.1.3.3	<p>I don't understand 2.1.3.3 the case "in the case of a distribution system" when 2.1.1 refers to "facility embedded within a distribution" system.</p> <p>Even if corrected to include "facility embedded within a distribution", confirm the 1MW applies (if its embedded)</p>	<p>The IESO has not proposed any significant changes to this existing market rule as part of MRP. The only changes the IESO is proposing to section 2.1.3 is to remove a cross-reference that is no longer applicable and as part of batch 1 the IESO replaced a reference to the term "registered facility."</p> <p>The IESO confirms that the 1 MW continues to apply as part of MRP such that if a facility is embedded within a distribution system and has a maximum load capacity of less than 1 MW, it is not required to register the facility unless required elsewhere under the market rules.</p>
10	Vlad Urukov	MR Ch.11 Definitions	Definition for "start indication value":	The IESO has added the definition to MR-00461-R05 and has corrected the typographical error.

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			<p><i>start indication value</i> means the minimum quantity of <i>energy</i> in MW that a <i>resource</i> must be scheduled to determine whether the <i>generation units</i> associated with the <i>resource</i> have used one or more of the submitted maximum number of starts per day;</p> <p>“Maximum number of starts per day” is a defined term – italicize.</p>	
11	Vlad Urukov	MR Ch.7 s.2.2.6A, 2.2.6A.2	<p>Change “not exceeding ...” to limited to the number of. Current wording suggests the value has to be less than the number of units, which is not the case.</p> <p>Not clear if starts will increment once the schedule is again lower than the number</p>	<p>The current wording, “not exceeding the number of <i>generation units</i>” allows for the number of start indication values submitted to be equal to the number of generation units.</p> <p>The definition of <i>start indication value</i> addresses when a start is being counted. There are further modifications to this definition which have been added to MR-00461-R05 (Chapter 11).</p>
12	Vlad Urukov	MR Ch.7 s.2.2.6A, 2.2.6A.3, 2.2.6A.4	<p>Add “and” after “;”</p> <p>Clarify if these forebays need to be linked, as the timelag is only a feature of the linked forebay</p> <p>Consider adding specificity in terms of which forebays have</p>	<p>The IESO has corrected the typographical error in section 2.2.6A.3 by adding an “and.”</p> <p>Not all forebays need to be linked with respect to the optional registration requirements for hydroelectric resources identified in section 2.2.6A. When a forebay is linked it would then require a registered time lag. Alternatively, a forebay that has been submitted as an optional stand-alone registration parameter can be registered to utilize a forebay’s maximum/minimum daily energy limit.</p>
13	Vlad Urukov	MR Ch.7 s.2.2A, 2.2.9, 2.2.9.2	<p>What is the reason for removal of “commissioning generation facility” in section 2.2.9.2 while 2.2A still states “in accordance with section 2.2”. Now section 2.2 doesn’t have any made mention of commissioning.</p>	<p>As part of the commissioning process, the IESO is no longer requiring commissioning facilities to register as self-scheduling facilities. The IESO is updating the registration procedures so that a market participant need only register as the resource type they intend to participate as. There is a reference to section 2.2 as the resource is still treated (not registered) as a self-scheduling resource during</p>

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				<p>commissioning activities for dispatch purposes and as such must meet the criteria required for a self-scheduling resource.</p> <p>The IESO is currently reviewing the market rules for commissioning facilities to ensure compatibility with IESO tool implementation and expects to bring any required amendments as part of the Final Alignment batch.</p>
14	Vlad Urukov	MR Ch.7 s.2.2.11	Why is the word “associated” deleted? The term resources is not mentioned in the first part of the sentence and therefore the term “those ... resources” is unclear – what resources is this referring to?	The IESO has re-inserted the phrase “any associated” resources in section 2.2.11 of Chapter 7.
15	Vlad Urukov	MR Ch.7 s.2.2.19, 2.2.20	<p>Could you explain why changing to a DL required 180 days in comparison to the 75 days for any other direction of change on the load side (including from a DL to NDL or PRL)</p> <p>2.2.20 adds confusion in relation to 2.2.19.2 which gives a 75 day window.</p>	<p>The time constraints in section 2.2.19 for changing load participation types are required by the IESO’s registration process to account for necessary updates and validation activities to the IESO’s tools and databases, including the network model build (NMB). Each cycle of the NMB requires a significant amount of processing and quality assurance effort. In addition to the time needed for incorporation of a change into the NMB, a load that intends to change registration types to become a dispatchable load also requires the load to adhere to specified metering and dispatch workstation requirements to allow the IESO to dispatch the resource on a five-minute basis. The 180-day timeline takes into consideration this metering and dispatch workstation set-up based on experience to date.</p> <p>The time constraint in section 2.2.20 is intended to avoid frequent seasonal registration changes by market participants and minimize the associated downstream impacts of those changes on both IESO processes and other market participants. In response to stakeholder feedback, the IESO recently reduced this timeline from 12 months to 180 calendar days as part of the March 13, 2024 publication of these MSO market rule amendments.</p>
16	Vlad Urukov	MR Ch.7 s.2.2.21, Ch.11	Where is the “resource specific information” listed (see Deletion of Ch 9). Also, isn’t there a further requirement	The resource specific information is included as part of the definition of a <i>generation offer guarantee eligible resource</i> or <i>GOG-eligible resource</i> . The reference to chapter

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		definition of GOG-eligible resource	as to what some of the information is to actually contain – see definition requirements.	9 was deleted as the requirements for <i>GOG-eligible resources</i> have been included in the definition.
17	Vlad Urukov	MR Ch.7 s.2.2A.2, Ch.11 definition of self-scheduling generation facility, self-scheduling generation resource	Why does 2.2A.2 use the term “generation facilities associated with a self-scheduling generation resource” while applied to “commissioning generation facility” rather than the term “self-scheduling generation facility”, which is already defined based on a “self-scheduling generation resource”	Section 2.2A.2 uses the phrase “generation facilities associated with a self-scheduling generation resource” rather than the defined term “self-scheduling generation facility” because using the defined term would require the entire commissioning generation facility to meet the requirements of a self-scheduling generation facility. There may be generation resources within the commissioning generation facility that are not undergoing commissioning and would therefore not meet the requirements for a self-scheduling generation facility.
18	Vlad Urukov	MR Ch.7 s.2.2A.1, 2.2A.3	Why does 2.2.A.3 refer to participation in the day ahead or real time markets, whereas 2.2.A.1 refers to participation in only the real time market.	The IESO has amended section 2.2A.1 to include the day-ahead market for consistency with section 2.2.A.3. An equivalent change has been made in section 2.2D.1 to include the day-ahead market.
19	Vlad Urukov	MR Ch.7 s.3.1.11	Is it “for” the resource?	Within section 3 of Chapter 7, the rules consistently refer to the submission of dispatch data as occurring “on” the resource.
20	Vlad Urukov	MR Ch.7 s.3.1.12, 3.1.13, 3.1.14	3.1.12 and 3.1.13 refer to instances when an ADE is not established, meaning its not set whereas 3.1.13 speaks to an increase presumably from a set value. Seems like 3.1.14 need to be amended to reflect an approval of something more than an increase to cover section 3.1.12/13	Sections 3.1.12 and 3.1.13 refer to resources that have “not established an availability declaration envelope.” Resources that have not established an ADE are considered to have an ADE of 0 MW as described in Market Manual 4.1, section 7.5. Therefore, the use of “increase” in section 3.1.14 appropriately addresses a resource’s change to their ADE.

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21	Vlad Urukov	MR Ch.7 s.3.2.1	Are "day-ahead market submission window", "day ahead market restricted window" and "standing dispatch data" defined terms?	<p>The IESO confirms that <i>day-ahead market submission window</i>, <i>day-ahead market restricted window</i> and <i>standing dispatch data</i> are defined terms included in the defined terms package (MR-00461-R05: Market and System Operations) which supports the MSO batch of market rule amendments:</p> <p><i>day-ahead market restricted window</i> means the period of time commencing at 10:00 EPT on the day prior to the relevant <i>dispatch day</i> until <i>day-ahead market expiration</i>;</p> <p><i>day-ahead market submission window</i> means the period of time commencing at 06:00 EPT and ending at 10:00 EPT on the day prior to the relevant <i>dispatch day</i>;</p> <p><i>standing dispatch data</i> means the initial <i>dispatch data</i> that is submitted on a <i>resource</i> for one or more <i>dispatch hours</i> of future <i>dispatch days</i>, as specified by a <i>registered market participant</i>;</p>
22	Vlad Urukov	MR Ch.7 s.3.2.4, 3.2.5, 3.2.6	<p>In what case will the IESO use 3.2.6 (most recent dispatch data) in the context of 3.2.4 which states the IESO will approve submission within a window. Is this saying that if the IESO DOES NOT approve as per 3.2.4, the IESO WILL then use the data submitted before 10:00 EPT on the day prior?</p> <p>It is not very clear with the current wording Is EPT deliberate, where EST is used elsewhere?</p>	<p>If a submission during the DAM restricted window is not approved by the IESO per section 3.2.4/3.2.5, the dispatch data submitted prior to the close of the DAM submission window (10:00 EPT) will be used as inputs into the DAM calculation engine for the relevant dispatch day. If there were no submissions during the DAM submission window or no standing dispatch data, the engine would assume that there are no offers for that resource. The IESO has clarified the language in section 3.2.6 to better align with this intent.</p> <p>Use of EPT and EST is deliberate throughout the market rules as timelines associated with the day-ahead calculation engine and associated processes are stipulated in Eastern Prevailing Time (EPT).</p>
23	Vlad Urukov	MR Ch.7 s.3.3.2	<p>"on a resource" or "for a resource"?</p> <p>What is the difference between a revision to dispatch data and revised dispatch data.</p>	<p>Within section 3 of Chapter 7, the rules consistently refer to the submission of dispatch data as occurring "on" the resource.</p>

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			What is the significant of this section of the MR?	<p>The phrase: "a revision to dispatch data" refers to the action that results in "revised dispatch data. Both phrases are used in in section 3.3, as appropriate depending on the context.</p> <p>Section 3.3.2 states that any submission made in the pre-dispatch process is considered a "revision to dispatch data" or "revised dispatch data." This clarifies that even if a submission was not made in the day-ahead market that under section 3.3 it would be considered a revision or revised dispatch data.</p>
24	Vlad Urukov	MR Ch.7 s.3.3.1	Change ";" to ":"	The IESO has amended section 3.3.1 as suggested.
25	Vlad Urukov	MR Ch.7 s.3.3.3.2	What is the significance of the reference to market manual? In what circumstance will the MM allow for a revised ADE	<p>Section 3.3.3.2 specifies that revised bids seeking to increase a resource's availability declaration envelope will require IESO approval in accordance with section 3.1.14, which outlines the approval requirements.</p> <p>Market Manual 4.1: Submitting Dispatch Data in the Physical Markets includes the relevant detail that specifies the process to increase a resource's availability declaration envelope and includes the details of when an increase to an availability declaration envelope will not require a formal request for IESO approval (section 7.5 of Market Manual 4.1).</p>
26	Vlad Urukov	MR Ch.7 s.3.3.3.4	<p>Is the intent of this statement that a GOG-eligible resource scheduled in DA can not increase SNL and can not increase the prices for quantities up to MLP from the last DA offer price.</p> <p>If so, suggest clarifying as "above the latest offer price corresponding to this quantity"</p>	<p>That is correct, section 3.3.3.4 establishes restrictions on speed no load, and energy offer price revisions for quantities up to and including the minimum loading point, for the hours of the day-ahead operational schedule.</p> <p>The proposed language which states "above the latest offer submitted for the corresponding dispatch hour under section 3.1.11" is consistent across section 3.3. The IESO does not agree with the proposed clarification since it would associate the quantity portion of the revision restriction to the speed no load offer. The speed no load offer is independent of the p-q pair submission.</p>

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27	Jennifer Jayapalan Workbench	MR Ch.7 s.3.1.11	<p>This continues to be a concern. If an electricity storage facility wants to create an ADE for the generator and load resource to remain flexible in real time, it must offer all hours of the day on both resources. In doing so, it effectively removes itself from the DAM OR market (due to the interim market rules on ability to offer OR if you have both a load and generator offer in the same hour). The resource potentially gets a DAM financially binding schedule that is not taking OR into consideration. Additionally, there are concerns this could have a pricing impact between DAM and RT if a significant amount of OR MW are offered in RT that are not offered in DAM. There are obviously exceptions as noted below to request approval from the IESO control room on ADE exemptions, however in our experience with ADE exemptions, they are rarely granted. It would be helpful to have language that would support an ADE exemption on the load side of an ES resource (either across the board or situationally) to better schedule and optimize these resources and allow for the flexibility they provide.</p>	<p>Storage participants can offer OR on the same resource (generation or load) that they have submitted energy offers or bids on, but they cannot have both a bid and an offer submitted in a dispatch hour where they have offered OR. Should a storage participant want to establish an ADE on both resources for a given hour, they would not be able to submit an offer of OR but could submit both an energy bid and an energy offer for that hour.</p> <p>In the DAM, this is meant to restrict the engine from scheduling conflicting energy and operating reserve for the resources. In real-time, this is meant to prevent any conflicts between OR activations and dispatch instructions and ensure that an electricity storage resource has sufficient state of charge to deliver on any OR activations. Storage participants have an ability to determine when they believe it would be optimal to charge/discharge and plan their OR offers accordingly. This requirement will be reviewed when the IESO develops a single resource model for storage with an integrated state of charge variable.</p> <p>Currently the IESO is not considering changes to the criteria for increasing a resource's availability declaration envelope. The established criteria in section 3.1.14 of Chapter 7 already provide the IESO the ability to take actions to address reliability concerns, allow increases for resources returning from outage early and to take actions to prevent a resource from operating in a manner that would endanger the safety of any person, damage equipment, or violate any applicable law.</p>
28	Jennifer Jayapalan Workbench	MR Ch.7 s.3.3.4	<p>Forced outage revisions during the RT Market Unrestricted Window and Mandatory Window. This section does not include electricity storage. Please indicate whether this was intentional and/or where electricity storage is referenced in terms of submit forced outage dispatch data revisions.</p>	<p>Forced Outage revisions and Replacement energy offers: Section 3.3.4 permits revised dispatch data to be submitted on resources related to those on forced outages, such as downstream hydro resources, or other steam turbines in a combined cycle plant. As there are no storage resources that are similarly connected with one another, storage was not included in this provision. Storage is also excluded in this provision under the existing baseline (section 3.3.4B). Note that storage resources do have the ability to revise their dispatch data due to state of charge limitations under Ch.7 section 21.5.</p>

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29	Jennifer Jayapalan Workbench	MR Ch.11	" <i>mandatory window</i> means the period time on a <i>dispatch day</i> that begins following the <i>real-time market unrestricted window</i> and that ends 10 minutes before the <i>dispatch hour</i> , or in the case of a <i>boundary entity resource</i> , that ends an hour and 10 minutes before the <i>dispatch hour</i> ; "(I think this is missing the word 'of' in period of time.)	The IESO has amended the defined term <i>real-time market mandatory window</i> to correct the typographical error.
30	Jennifer Jayapalan Workbench	MR Ch.11	<i>real-time market unrestricted window</i> – This definition is not in Chapter 11, please identify where it is defined. It is being identified as a defined term throughout the text.	The IESO confirms that <i>real-time market unrestricted window</i> is a defined term that was included in the defined terms package (MR-00461-R05: Market and System Operations) which supports the MSO batch of market rule amendments: <i>real-time market unrestricted window</i> means the period of time that begins upon <i>day-ahead market expiration</i> and that ends two hours prior to the <i>dispatch hour</i> ;