

# Stakeholder Feedback and IESO Response

## Market Renewal Program: Market & System Operations Market Rule and Market Manuals

The IESO posted Market & System Operations batch draft market rule and market manual amendments on July 14, 2023 and received written feedback from:

Atura Power

Evolugen by Brookfield Renewable

Capital Power

The Association of Major Power Consumers of Ontario (AMPCO)

The Electricity Distributors Association (EDA)

Ontario Power Generation

Workbench

Related materials have been posted on the IESO **[MRP stakeholder engagement webpage](#)** for this engagement. If interested, please visit the webpage to reference the feedback submissions directly as the below uses excerpts and/or a summary of the stakeholder feedback for the purposes of providing an IESO response.

Please contact IESO Engagement at **[engagement@ieso.ca](mailto:engagement@ieso.ca)** if you have any questions.

# Atura Feedback and IESO Responses

ID	Section	Feedback	IESO Response
1	Market Rules - Chapter 7, All Sections - Offer Restrictions	<p>There are many restrictions on offer changes such as (i) offers shall not be increased after 20:00 the day prior for the dispatch day; (ii) offers shall not be increased above value accepted by IESO to establish ERUC commitment/Advisory schedule commitment; and (iii) offer greater than the lesser of 15% or 10MW of the ADE. Can the IESO confirm if its system and operations tools will incorporate such offer restrictions and thus automatically prevent the Market Participants from making any offer changes that violate these market rules without the appropriate reason code?</p> <p>Atura is concerned with the offer restrictions outlined in MR Chapter 7 section 3.3.3.5 and 3.3.3.7 where a GOG-eligible resource does not receive a day-ahead operational commitment. The Market Participant with no day-ahead operational commitment may not secure fuel, via third party purchases or storage withdrawals, and pipeline transportation accordingly. Variable fuel costs and delivery costs may change substantially during the dispatch day that prevents the Market Participant from recovering its true costs as a result of the section 3.3.3.5 and 3.3.3.7 restrictions.</p> <p>Section 22.5.5 identifies the process required to “request a temporary revision to the fuel cost component of a reference level for specific dispatch hours if the fuel cost component in a resource’s energy offer reference level, start-up offer reference level, or speed no-load offer reference level will not reflect the resource’s short-run marginal costs for fuel”. In section 22.5.7.2 the request is to be made no later than 150 minutes before the first dispatch hour in the request for RT. Can the IESO confirm that once this request has been made and approved by the IESO, does this allow for offer revisions after the 20:00 submission window restrictions outlined in MR7 section 3.3.3.5 and 3.3.3.7?</p>	<p>The IESO confirms that almost all dispatch data revision/submission restrictions are subject to automatic validation and these submissions/revisions will be automatically rejected if they violate a restriction. The following are the cases where a submission will not be automatically rejected if it violates a restriction:</p> <ol style="list-style-type: none"> <li>1) Energy offer quantities that exceed the availability declaration envelope (ADE) quantity for a given hour by the materiality threshold specified in Market Manual 4.1 Section 7.5.1 (15% of existing ADE or 10 MW, whichever is less).</li> <li>2) Where a non-quick start resource that is not a nuclear generation resource does not include in one of its price-quantity pair a quantity that is equal to its minimum loading point (MLP).</li> <li>3) Floor prices for nuclear generation and variable generation resources (nuclear and wind).</li> <li>4) Many submissions or revisions require a reason code. While the submission of a reason code will prevent the automatic rejection of the submission it does not imply that the revision or submission complies with the market rules. See Market Manual 4.1 Appendix B and Appendix F8 for more information.</li> </ol> <hr/> <p>At 20:00 EST, the first pre-dispatch run that includes the next dispatch day commences, with the first advisory pre-dispatch schedule that includes the next dispatch day being published at approximately 20:30 EST. While actual pre-dispatch commitments will be based on the associated binding pre-dispatch advisory schedule, which will be issued based on a resource’s lead time, this first pre-dispatch advisory schedule</p>

ID	Section	Feedback	IESO Response
2	Market Rules - Chapter 7, All Sections -	Market Rules Chapter 7 section 3.6.7 states "A registered market participant for a dispatchable generation resource or a dispatchable electricity storage resource shall withdraw an offer to provide operating reserve as soon as practicable, if, for any dispatch hour in the current pre-dispatch schedule, the resource cannot	<p>will indicate potential future pre-dispatch commitments based on the <i>commitment cost parameters</i> (start-up offer, speed-no-load offer, and energy offer up to minimum loading point) in effect for the 20:00 pre-dispatch run. The restrictions in the proposed market rules in Chapter 7 section 3.3.3.5 and 3.3.3.7 prevent offer price increases associated with these future potential commitments. These restrictions are necessary to ensure the integrity of the hourly pre-dispatch advisory schedules. Allowing an increase in these <i>commitment cost parameters</i> after the first pre-dispatch advisory schedule, but before the binding pre-dispatch advisory schedule is issued, could have the following impacts:</p> <ul style="list-style-type: none"> <li>a) A higher commitment cost to the market for the resource; or</li> <li>b) The resource's potential commitment being replaced with a potential commitment from another NQS resource</li> </ul> <p>Note that these restrictions do not prevent offer price increases for quantities above MLP nor for operating reserve offer prices.</p> <p>The restrictions under Chapter 7 sections 3.3.3.5 and 3.3.3.7 will continue to apply regardless of whether or not the IESO approves a market participant's request for a temporary revision to the fuel cost component of a reference level. However, under this case the restrictions under Chapter 7 Section 3.3.3.10 b), which apply to quantities above the resource's binding pre-dispatch advisory schedule, will not apply as indicated in Chapter 7 section 3.3.3.11 c).</p> <p>For clarification, Chapter 7 section 3.6.7 of the proposed market rule does not require withdrawal of operating reserve offers in all cases where a resource's pre-dispatch energy schedule is less than its reserve loading point. This is only required if the resource cannot provide the scheduled</p>

ID	Section	Feedback	IESO Response
	OR Offer Cancellations	provide operating reserve because the resource’s pre-dispatch schedule for energy is less than its reserve loading point.” With the added intelligence being incorporated into the PD/ERUC process, including lead times, can the IESO confirm if Market Participants are required to update its offers for the hours leading up to the hour where the unit can reach MLP (i.e., today this may include hourly cancelling operating reserve offers for the hours prior to the earliest the unit can reach MLP and cancelling energy offers for the hours the unit is unable to sync)?	<p>operating reserve. An edit has been made to the rule to clarify that it applies to “scheduled” operating reserve.</p> <p>Market participants will not be required to withdraw operating reserve offers for hours leading up to the hour that a non-quick start (NQS) resource can reach MLP since the pre-dispatch and real-time calculation engines will not schedule operating reserve on NQS resources scheduled or dispatched below MLP.</p>
3	Market Rules - Chapter 7, All Sections - Start-Up Offers	For the three-part DA offers the Start-Up Offers can be escalated for the hours at the end of the day to compensate for any MGBRT that would continue into the day following the DA schedule. With PD/ERUC, these escalating Start-Up Offers would still be required for a PD/ERUC commitment prior to 20:00 but not required for a PD/ERUC commitment following the 20:00 PD run since it optimizes across both days. Can the IESO confirm if Atura’s understanding is correct?	<p>Escalating start-up offers should be submitted for any hours in which the beginning of a DAM or Pre-Dispatch operational commitment would require the resource to operate past midnight to satisfy its MGBRT. Section 2.1.2 of draft Market Manual 4.1 will be revised to remove the recommendation that escalating start-up offers be revised by 20:00 EST on the dispatch day.</p> <p>The escalating start-up offers will be used by the day-ahead and pre-dispatch calculation engines to assess the cost of commitments that extend across two days. These offers should not be revised by 20:00 EST on the dispatch day as the settlement treatment of commitments that extend across two days assumes all commitment costs are covered in the first day of the commitment.</p>
4	Market Rules - Chapter 7, All Sections - Ramp	<p>MR Chapter 7 section 3.5.33.3 identifies energy per ramp hour as the method of submitting the hourly energy during ramp hours. But in MR Chapter 7 Appendix 7.5 section 4.2.3.7 uses ramp up energy to minimum loading point to define the parameter RampE that is hourly energy during ramp hours.</p> <p>a) Why are there two terms that appear to define the same submitted data?  b) Is RampE a constraint in both Day-ahead and Pre-dispatch. Will the Day-ahead and Pre-dispatch calculation engines use RampE for each ramp hour or will the calculation engine use the submitted ramp rates?</p>	<p>a) The term ramp up energy to minimum loading point is defined in Chapter 11 of the market rules. This defined term is used a number of times in the proposed market rules including Chapter 7 (Market and System Operations) section 3.5.33.3, Appendix 7.5 (The Day-Ahead Market Calculation Engine) section 4.2.3.7 and Appendix 7.5A (The Pre-Dispatch Calculation Engine) sections: 4.2.3.10, 5.6.1.9, 5.6.1.10, 5.6.1.11, 8.6.3.8.2, 8.6.3.8.3 and 8.6.3.8.4.</p>

ID	Section	Feedback	IESO Response
5	Market Manual 4.3 - Thermal State	If two PSUs (which share common STG) are determined to be in cold state based on the last hour the CTs were at MLP and the corresponding MGBDT values, and only one PSU is operating in real time, the IESO has stated in MM 4.3 section 2.5.1.4 that the MP is to revise the MGBDT to reflect that the 2 <sup>nd</sup> non-operating PSU is now in a hot state. It is Atura’s understanding for the MGBDT Daily Dispatch Data, the values are updated on a per operating state (hot/warm/cold) basis and since Operating State Daily Dispatch Data is used for DA only, can the IESO confirm that the Market Participant will be required to change all three operating state MGBDT values to the hot state in RT?	<p>While all of these references refer to the same defined term, in Chapter 7 section 3.5.33, the term is used to define submission requirements associated with ramp up energy to minimum loading point. In Appendices 7.5 and 7.5A the term RampE is always accompanied by subscripts and superscripts that define the elements of ramp up energy to minimum loading point, such as the hour that the ramp energy applies to the associated bus, the associated thermal state and for a pseudo-unit whether it is referring to the ramp up energy for the combustion or steam turbines.</p> <p>Use of the defined term ramp energy to minimum loading point is sufficient for stating submission requirements in Chapter 7 section 3.5.33. However, Appendix 7.5 and 7.5A spell out specific calculation engine functionality. In this case it is necessary to precisely describe which element(s) of the ramp up energy to minimum loading point are being used by the calculation engines. In order to do this, the term RampE along with the associated subscripts and superscripts mentioned above are used.</p> <p>b) Yes, RampE is used by both the day-ahead and pre-dispatch calculation engines for the ramping hours.</p>
			<p>This reply will first add additional details to the example presented in the feedback and then address the questions raised referencing the example.</p> <p>Example. A combined cycle facility consists of two combustion turbines and one shared steam turbine. These resources are modelled as two PSUs. In this example, both PSUs are initially determined to be in the COLD thermal state because both the associated combustion turbines have been below MLP for more than their MGBDT(COLD) times.</p>

ID	Section	Feedback	IESO Response
			<p>Subsequently, one of the PSUs (PSU1) is brought on-line from the COLD state. At this point, both the first CT (CT1) and the steam turbine are on-line. The second PSU (PSU2) continues to be assessed as being in the COLD thermal state since CT2 has been below MLP for longer than its MGBDT(COLD). However, as the steam turbine is in service, the market participant wishes to revise the assessed thermal state of PSU2 from COLD to HOT.</p> <p>For this example, it may be possible to revise PSU2's thermal state to HOT by increasing the MGBDT (WARM) and MGBDT (COLD) values for CT2 to more than the number of hours that CT2 has been below MLP. If MGBDT(WARM) and MGBDT(COLD) are increased so that their values are greater than the number of hours that CT2 has been below MLP, then the corresponding PSU2 will be assessed as being in the HOT thermal state. If these changes are feasible they will cause the pre-dispatch calculation engine to determine that PSU2 is HOT causing the pre-dispatch calculation engine to use the HOT thermal state parameters when evaluating the resource, specifically the HOT start-up offer. It will also use the HOT lead time for the resource start-up notice and the HOT ramp profile for scheduling the resource prior to any commitment.</p> <p>However, this change is not feasible if CT2 has been below MLP for more than 99 hours as MGBDT(WARM) and MGBDT(COLD) values are not permitted to exceed 99 hours (reference draft market rules Chapter 7 section 3.5.31.4). Under these circumstances, the MP may contact the IESO and request that the count of the number of hours that the resource has been below MLP be changed to a value that causes the pre-dispatch calculation engine to determine that the resource is in a HOT thermal state.</p> <p>The question also refers to "Operating State Daily Dispatch Data". The IESO assumes that this is meant to refer to daily dispatch parameters</p>

ID	Section	Feedback	IESO Response
			that depend on the thermal state of the resource. These parameters are: start-up cost, ramp profile to MLP and lead time (only used by pre-dispatch). For the DAM, the market participant submits the thermal state of the resource, while for pre-dispatch the thermal state is determined based on the number of hours the resource has been below MLP and its MGBDT values.

## Evolugen by Brookfield Renewable Feedback and IESO Responses

ID	Section	Feedback	IESO Response
6	Market Rules - Chapter 7, All Sections - on dispatchable hydro facilities	<p data-bbox="588 777 1220 802">Min/Max DEL to be submitted at a Forebay Level</p> <p data-bbox="588 813 1650 979">a) If multiple resources share the same forebay, do they have to all be registered as sharing one forebay? Linking multiple resources to one forebay would work for DEL as detailed above, but it may negatively impact MPs as the same information would be applied to MPM. Can MPs link/unlink resources to accommodate for seasonal flow changes?</p> <p data-bbox="588 1024 951 1049">Time Lags for 0.5h intervals</p> <p data-bbox="588 1060 1650 1226">b) We understand that time lags may need to be submitted in whole values. However, some stations need to accommodate 0.5hr time lags due to limited storage. For example, a 50MW downstream station with a 0.5hr lag from the upper may need to schedule 25MW in the current hour to accommodate the incoming flows from upstream. Is there a way MPs can communicate this need?</p> <p data-bbox="588 1271 1650 1403">c) When Forebay A is economically dispatched in RT, there is a 2hr lag to Forebay B. Forebay B need to then be dispatched to pass the water that is incoming from upstream. In this example, is Forebay B paid the RT price at the LMP or its offer price? Would any difference be paid via a MWP?</p>	<p data-bbox="1663 777 2591 967">a) Yes, the registration of multiple resources to a forebay is optional. A market participant may request for resources to be registered as sharing the same forebay and update the registration to indicate the resources as independent, in the event of seasonal differences that impact the flow of water to the resources.</p> <p data-bbox="1663 997 2591 1304">b) Correct, time lag must be submitted as a whole number between 0 and the registered time lag value. If the time lag is not a whole number, a market participant should round up or down in order to allow the hourly schedules produced by the day-ahead and pre-dispatch calculation engines to most closely reflect the required time lag. For the example provided, a time lag value of 0 could be submitted to tell the engines to respect the relationship between the upstream and downstream resources in the same hour.</p> <p data-bbox="1663 1333 2591 1442">c) Cascade parameters are not considered by the real-time calculation engine and therefore cascade resources will be dispatched independently and have real-time settlement amounts based on their</p>

ID	Section	Feedback	IESO Response
		<p>d) MPs are required to submit the request/documentation for their alternative cost profile at a given time. For hydro, it is the Forebay Refill Opportunity Cost Adder by 9:30 EST. This timeline is too tight for MPs to submit the request on top of having to submit all the new hydro parameters by 10:00 EST. Information to create the offers and the request for the FROC is initiated by the field operations group before going to the marketing team that creates and submits the offers—the proposed timeline leaves only 30mins for the marketing team to react. Please extend the timeline to reflect MPs operational constraints.</p>	<p>real-time LMPs. RT MWP for cascade resources are similarly assessed on an individual resource basis. As such, a resource associated with forebay B is assessed its RT MWP based on its own schedules and economic operating point (EOP). Forebay A has no impact on the assessment of real-time schedules or MWPs for forebay B.</p>
		<p>e) The FROC adder is a fixed \$/MWh every day and does not move with the market like the Storage Horizon Opportunity Cost (SHOC). The FROC data submission deadline could also be set at 10:00 EST as the MPs will know the adder price in advance and can apply that to their offer prices, therefore not needing an updated Reference Pricing Report prior to the closure of the DAM offer window.</p>	<p>d) The submission timelines for the temporary reference level change requests and dispatch data are in EPT, not EST. As shown in Section 5.1 of Market Manual 14.2, temporary reference level change requests can be submitted between 06:00 and 30 minutes prior to the close of the day-ahead market submission window to be considered in the DAM. If market participants need more than 30 minutes to update their offers, they are able to accomplish this by submitting temporary reference level change requests earlier than the cut-off.</p>
		<p>f) There should not be a need for MPs to manually submit data/requests for the alternative cost profile to the Online IESO Portal as all the relevant data would be submitted in the offers for the DAM that closes at 10:00EST. As such, data can be automatically gathered and processed on the IESO side for validation—a time saving measure for both the IESO and MPs. Can the IESO explain what additional information they would require MPs to submit for the alternative cost profile beyond what is already submitted as part of the DAM offers?</p>	<p>e) The rationale for allowing temporary DAM reference level change requests until 30 minutes prior to the close of the DAM submission window, rather than until the close, is to allow the IESO time to review requests prior to dispatch to evaluate whether the requests should be approved. It is not related to a market participant need for updated reference level value reports. In most cases, requests that are not reviewed by the IESO prior to the close of the DAM submission window will default to conditionally approved and will be available for the IESO to review following the dispatch day. However, it is important that the IESO retains the ability to review these requests to prevent ineligible requests from negatively impacting market and dispatch outcomes.</p>
		<p>g) DEL is only to be used in DAM and not carried forward into the RT Market. This leaves hydro operators with “price” as the key parameter that can be adjusted to reflect operational flexibility. However, offer price is subject to MPM and could create additional generation dispatches, causing operational concerns and distortions in the RT Market. Please clarify how the IESO would account for this limitation.</p>	<p>f) Per Chapter 7 s.3.2.6, dispatch data must be submitted prior to 10:00 EPT to be included in the DAM, rather than 10:00 EST as indicated in the comment.</p>



ID	Section	Feedback	IESO Response
			<p>As stated in Market Manual 14.2, supporting documentation for a request to use the Forebay Refill Opportunity Cost includes but is not limited to:</p> <ul style="list-style-type: none"> <li>i) documentation that shows headwater levels and a curve of a headwater level versus storage, as well as information regarding flow rates; or</li> <li>ii) submitted maximum daily energy limit, submitted minimum daily energy limit and the efficiency rating of the units at the resource.</li> </ul> <p>The IESO does not have access to data regarding headwater levels, flow or storage data or efficiency ratings of the units in a resource as part of submitted dispatch data. Supporting a request to use the Forebay Refill Opportunity Cost requires the full set of data associated with either option (i) or (ii) to be provided.</p> <p>In addition, the structure of temporary reference level requests fundamentally requires that the market participant indicate not only when the conditions are met to submit such a request for such a resource, but for which particular dispatch hours and market time frame to submit. These requests are market participant driven by design, given that the information driving the requests, benefit and any risk associated with a request all reside with the market participant. Having IESO systems automatically create complete requests on behalf of market participants would not be implementable due to the informational requirements discussed previously, however it would also be inappropriate as it would result in the IESO being the initiating party of these requests.</p> <ul style="list-style-type: none"> <li>g) The maximum daily energy limit is considered by both the DAM and PD calculation engines. Due to the limited time horizon over which the real-time calculation engine optimizes, it is not feasible to consider</li> </ul>

ID	Section	Feedback	IESO Response
7	Market Manual 4.1, Section 11: Submitting Regulation Offers	<p>NOTE: This feedback is a modified version of Evolgen’s initial submission. The IESO has removed potentially sensitive information.</p> <p>We understand that the IESO proposes to advance the regulation offer submission deadline by one hour, from 9:00 EPT to 8:00 EPT, on the day prior to dispatch.</p> <p>This proposed revision to the submission timing has a material impact on how we coordinate our energy, operating reserve, and ancillary service offers. For example, in the day-ahead process, Evolgen needs to assess water level elevations, inflows and other variable system conditions, legal and environmental constraints, market conditions, competing energy and operating reserve offers, before we can establish an economical and feasible regulation offer schedule. Advancing the submission deadline to 8:00 EPT would significantly shorten the time our staff has to assess conditions and optimize our various offers. We recommend the IESO retain the 9:00EPT regulation submission deadline instead.</p>	<p>maximum daily energy limit in this timeframe. The DAM and PD calculation engines will optimize the maximum daily energy limit over the dispatch day and will also conduct ex-ante mitigation (there is no ex-ante mitigation performed by the real-time engine). In the event that the real-time dispatch would require a resource to operate in a manner that would endanger the safety of any person, damage equipment, or violate any applicable law, the market participant may request a SEAL resource constraint to an alternative dispatch quantity.</p> <p>The IESO has revised the timing of the requirement to offer regulation capacity as follows:</p> <ul style="list-style-type: none"> <li>• Each ancillary service provider for regulation must offer regulation capacity for the next dispatch day by 09:00 EPT on the day prior to the dispatch day.</li> <li>• Correspondingly, the IESO will determine regulation schedules by 10:00 EPT on the day prior to the dispatch day.</li> </ul> <p>In order to accommodate the later submission time of 09:00EPT, offers for regulation will be required to be submitted in a standardized template acceptable to the IESO. The IESO will work with ancillary service providers to determine the acceptable submission template.</p>

## Capital Power Feedback and IESO Responses

ID	Section	Feedback	IESO Response
8	General Comments/ Feedback	The Market Rules provide the IESO with ample opportunity to override DAM, PD and RTM calculation engines, which will impact LMPs and settlement amounts for MPs. Can the IESO provide more clarity on how these interventions will occur in reality, and what the impacts would be?	<p>The IESO will only manually constrain resources out of economic order to safeguard the reliability of the IESO-controlled grid (see Chapter 5, Section 1.2), or to ensure the safety of any person, prevent the damage of equipment, or to prevent the violation of any applicable law. The IESO will use a similar approach to manual interventions post-MRP as it does today. Examples of scenarios where the IESO may need to constrain resources of out of economic order include:</p> <ul style="list-style-type: none"> <li>• To resolve a risk to reliability that the calculation engines cannot solve, such as respecting voltage limits;</li> <li>• To resolve a risk to reliability that the calculation engines cannot address quickly enough, such as the loss of a key resource immediately after publishing the pre-dispatch schedule or soon after running the day-ahead market calculation engine; and</li> <li>• To avoid spilling water where the spill would pose a risk to the safety of any person or would violate any applicable law.</li> </ul> <p>Manual constraints may impact the real-time locational marginal price for energy or operating reserve, and may also impact the schedules of resources that have not been constrained. However, since the single-schedule system already incorporates system operating limits into schedules and prices, the economic impact of manual constraints will be significantly less in the new market compared to the current market.</p>
9	General Comments/ Feedback	While the Market Rules talk about a Narrow-Constrained Area (NCA), Dynamic-Constrained Area (DCA) and Global Market Power Reference Intertie Zones, the Appendix includes additional constraints, including a Broad-Constrained Area (BCA). It is not clear why there is a discrepancy between the Market Rules and the Appendix. We ask that these discrepancies are clarified prior to approval.	<p>The conditions leading to testing for ex-ante mitigation related to a broad constrained area are identified in Chapter 7, Appendix 7.5, section 10.4.2 (day-ahead calculation engine), and Chapter 7, Appendix 7.5A, section 10.4.2 (pre-dispatch calculation engine). While Narrow Constrained Areas, Dynamic Constrained Areas and Global Market Power Reference Intertie Zones are all designated per the processes laid out in Chapter 7, section 22 and Market Manual 14.1, the conditions</p>

ID	Section	Feedback	IESO Response
			related to broad constrained areas do not require any such designation as they are entirely determined with a particular execution of the relevant calculation engine.
10	General Comments/ Feedback	It remains unclear how the MPM framework interacts with the General Conduct Rule (GCR). Please provide additional clarification.	The assessment of compliance with the market rules, including the General Conduct Rule, is separate from the Market Power Mitigation framework. The IESO has addressed this interaction in section 1 of Market Manual 14.1 and 14.2 as follows, "The IESO's assessment and mitigation of the exercise of market power, including testing and any related step by the IESO, shall not constitute a review for compliance with any market rule, including MR Ch.1 s.10A or s.11."
11	General Comments/ Feedback	The proposed Market Rules do not appear to account for not following the DAM dispatch instructions for economic reasons. An example of this would be when RT prices are lower than the DAM schedule and it is economic to buy out of a DAM schedule. It is expected that this is not considered a breach of dispatch instructions, but that remains unclear in the current Market Rules.	The IESO will only issue dispatch instructions in real-time. While the day-ahead schedule is financially binding, it is not a dispatch instruction.

## Association of Major Power Consumers of Ontario (AMPCO) Feedback and IESO Responses

ID	Section	Feedback	IESO Response
12	Market Rules - Chapter 7, All Sections - Price Responsive Load	<p>In the Batch 1 Definitions <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2021/iesotp-20210420-mr-00461-r00-mrp-energy-batch-definitions-amendment-proposal.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2021/iesotp-20210420-mr-00461-r00-mrp-energy-batch-definitions-amendment-proposal.ashx</a>) brought before the Technical Panel in April 2021, language was changed to indicate Price Responsive Loads were not obligated to submit bids into the Day Ahead Market (DAM) in order to consume energy in Real Time.</p> <p>There are sections in Chapter 7 that directly contradict this assertion (Chapter 7 Section 3.4.1.7 and Section 3.11.1). Additionally, in Section 2.2.19 and 2.2.20 there are specific time constraints contemplated for loads</p>	The obligation for price responsive loads (PRLs) to bid in the DAM was stakeholdered as part of the Grid and Market Operation Integration detailed design. Subsequently, in response to the comments submitted in relation to the MRP Facility Registration and Prudential Security batch that requested the obligation be removed from the definition specifically (i.e., not removed as an obligation generally), the Chapter 11 definition of a PRL brought forward to the Technical Panel in April 2021 was modified to eliminate the pending duplication of the obligation within both the PRL definition and the upcoming MSO batch of market rules that would codify the detailed design obligation.

ID	Section	Feedback	IESO Response
		<p>changing from one resource type to another. These windows and durations do not consider a load’s participation in the capacity auction and could result in undue hardship if a capacity auction position is not realized.</p> <p>The IESO should ensure that appropriate windows exist for loads to change resource type that are consistent with the capacity auction seasons.</p>	<p>The obligation to offer into DAM for PRLs is consistent with the treatment afforded to all other dispatchable resource types and helps drive broad participation in the DAM which facilitates price convergence between DAM and RTM.</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 the network model build, which requires a significant amount of processing and quality assurance effort to administer each cycle of the network model build.</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. While accounting for these considerations remains appropriate, in light of the newly identified potential impact of this constraint on load participation in the market, including the capacity auction, the IESO has reduced the constraint from 12 months to 180 days. The IESO will continue to monitor the impact of this change post-go live and may re-evaluate the length of this constraint.</p>
13	General Comments/ Feedback	<p>AMPCO disagrees with the apparent inconsistency of some proposed Day Ahead Market rules and Capacity Auction obligations, and requests that the IESO rationalize these inconsistencies.</p> <p>In the current capacity market construct, loads must bid above \$100/MWh in DACP and the Real Time Market to receive Availability Payments. This arbitrary floor price was designed to prevent loads from bidding low prices during Coincident Peak days in an attempt to capture the Availability Payments while simultaneously avoiding ICI Peaks. Loads did not challenge this because DACP was not financially binding and bids could be changed or cancelled in Real Time and the only risk was loss of the Availability Payment (with consequent penalties, depending on the month).</p>	<p>The IESO has revised the definitions of “demand response bid price threshold” and “demand response energy bid” to remove the obligation to bid at or above \$100/MWh in the day-ahead market. Under the revised approach, a capacity market participant with an hourly demand response resource or a capacity dispatchable load resource need only bid at or above \$100/MWh in the real-time market. These market participants may establish an availability declaration envelope in the day-ahead market with any price less than the maximum market clearing price and equal to or greater than the minimum market clearing price, including a price below \$100/MWh.</p>

ID	Section	Feedback	IESO Response
		<p>With Market Renewal and the DAM, some loads (Dispatchable Loads and PRL's) will be cleared in the Day Ahead market over 98% of the time (based on historical HOEP values) at prices that may be much higher than RT prices taking any opportunity to manage these costs out of the Loads' control. (i.e. since 2020 HOEP has only cleared 1.54% of the time above \$100) The IESO has indicated that loads will not be subject to Market Power Mitigation for energy but that is exactly what this floor is. This creates unnecessary financial exposure for loads. Other markets use Load Serving Entities to secure energy for customers. The LSE's are bound to be efficient in their management or suffer economic hardship for their customers who can abandon them for more efficient LSEs. Customers in Ontario will not have this luxury and no matter how the IESO forecasts load they will not suffer any monetary consequences. In recent times the IESO has been forecasting PD prices to be very high in some areas, specifically the North-West and then prices settle out in RT. How confident can a load be in this area that they will be getting the lowest cost energy by bidding \$100/MWh in the DAM? The Market would be more efficient if Loads were provided the freedom to achieve the lowest cost energy, either in DA or RT. AMPCO proposes Loads should be subject to the \$100/MWh floor price in RT only and only satisfy their ADE in RT with a price of their choosing.</p> <p>AMPCO is willing to meet with the IESO to further discuss this issue and potential solutions.</p>	

## Electricity Distributors Association (EDA) Feedback and IESO Responses

ID	Section	Feedback	IESO Response
14		<p>The following key aspects of the proposed amendments hold significance for LDCs:</p> <ol style="list-style-type: none"> <li data-bbox="620 1398 1615 1463">1. The IESO will enhance the granularity of demand forecasts used as input for the DAM calculation engine.</li> </ol>	<p>The Ontario Energy Board (OEB) has committed to providing accounting guidance for local distribution companies (LDCs) in early 2024, including how the Retail Settlements Code and Standard Supply Service Code will change as a result of MRP. The OEB will present their analysis in the</p>

ID	Section	Feedback	IESO Response
		<p>2. Daily publication of DAM prices by the IESO is scheduled for 13:30 Eastern Prevailing Time (EPT), including the DAM Operating Zone Price (OZP). In case of any delay, an advisory notice will be issued, and DAM results might be postponed until 15:30 EPT. A failure of the DAM will be declared with an advisory notice if valid results cannot be published by 15:30 EPT.</p>	<p>LDC-IESO MRP Preparedness Group, which is comprised by representatives from the IESO, the OEB and the Electricity Distributors Association (EDA).</p>
		<p>3. The IESO will revamp the process for publishing Real-Time Locational Marginal Prices (RT LMPs), resembling the current publication method for Hourly Ontario Energy Price (HOEP). All IESO reports will undergo modifications to eliminate outdated data associated with the present unconstrained model.</p>	<p>Please note in reference to points 2 and 4 that the IESO will notify <i>market participants</i> of DAM delays, DAM failures and significant DAM publication errors via DAM notifications rather than advisory notices. Edits have been made to Market Manual 4.2 sections 4.2, 4.3, and 4.4 to reflect this. Furthermore, the IESO will notify <i>market participants</i> of DAM price administration or a dispatch scheduling error via a price administration notification or dispatch scheduling error notification respectively. Edits have been made to Market Manual 4.2 section 9 to reflect this.</p>
		<p>4. An advisory notice will be issued by the IESO whenever significant errors are detected in the DAM results publication (e.g., pricing discrepancies), during DAM price administration, or in the case of dispatch scheduling errors.</p>	
		<p>5. The IESO will establish administrative prices, where applicable, within four business days following the affected dispatch day. This represents a change from the current practice of a two-business day timeline for price administration.</p>	
		<p><b>General Comments/Feedback:</b></p>	
		<p>1. It is important for LDCs to understand these timelines as they may impact automated/scheduled processes of collecting IESO data for customer invoicing, billing and settlement. The EDA is working alongside the IESO and the OEB to ensure that LDCs are prepared for implementation of MRP and found this engagement to be very productive.</p>	
		<p>2. The EDA looks forward to future collaboration on next steps of MRP preparedness to continue preparations with a reasonable amount of lead time.</p>	

ID	Section	Feedback	IESO Response
		<p>3. The EDA is encouraged by the OEB's next steps to prepare draft amendments for LDCs prior to MRP go live. The EDA further persuades the OEB to release draft code amendments and staff guidance within first quarter of 2024 (Jan-March) to better prepare LDCS in advance of MRP implementation.</p> <p>4. If the OEB is able to meet this deadline under the EDA's mutual understanding of draft amendments for changes and priorities this step in the process, LDCs can proactively prepare systems and tests to properly bill customer flow throughs. If this is not prioritized, LDCs risk losing the opportunity for a seamless transition and billing complications may increase, impacting many customers throughout the province.</p> <p>5. LDCs also require training for new systems, and it is the EDA's expectation that IESO training materials will be sufficiently detailed to provide instructional information to LDCS which cover both normal operations of the wholesale market as well as instances of delay or failure of the DAM</p>	

## Ontario Power Generation Feedback and IESO Responses

ID	Section	Feedback	IESO Response
Market Rules – Chapter 5, Sections 4, 6, 7, 8 and 10			
15	Market Rules - Chapter 5, Sections 4, 6, 7, 8, and 10, Section 8.4.1	<p>Please clarify the logic operators for Sections 8.4.1.1 to 8.4.1.5.</p> <p>The current logic appears to be: 8.4.1.1 OR 8.4.1.2 OR 8.4.1.3 OR 8.4.1.4 AND 8.4.1.5.</p> <p>Should the logic operator be OR for all these conditions, i.e. there are five conditions in which a market participant (MP) is eligible for compensation?</p>	<p>The logic operators are correct as stated. Section 8.4.1.4 ends with an "and", meaning that each one of these conditions must hold for the market participant to apply to the IESO for compensation.</p>



ID	Section	Feedback	IESO Response
Market Rules – Chapter 7, All Sections			
16	Market Rules - Chapter 7, Section 3.1.8	<p>“Dispatch data submitted during the dispatch day to which it applies shall only be submitted for the remaining dispatch hours of that dispatch day”.</p> <p>OPG interprets that the “remaining” hours means starting with current hour+1, please confirm. Otherwise, please elaborate and provide the correct interpretation.</p>	<p>The interpretation is correct, "the remaining dispatch hours of that dispatch day" means starting with the current hour+1.</p>
17	Market Rules - Chapter 7, Section 3.1.14	<p>The current Market Manual 9.4 (IESO_MAN_0079, Issue 8.0) Section 4.5.5.1 outlines the provision to allow MPs to increase the Availability Declaration Envelop (ADE) due to early return from planned and forced outages, forced derates, or cancellation of outages.</p> <p>Section 3.1.14 as written only allows ADE increase due to early return for planned outages, and removed the other provisions as allowed in the current market rules (i.e. early return from force outage, force derates and cancellation of outages). The section removes an inordinate degree of flexibility from MPs in regard to revision of ADE and unnecessarily penalize MPs for conditions that are out of their control, i.e. outage cancellation due to weather and road conditions. What is the rationale for the removal of the additional provisions?</p> <p>OPG strongly recommends the IESO to revert to previous wording that include the existing provisions for ADE increase.</p>	<p>The market rules definition of “outage” includes derates, forced outages, and planned outages. For the purposes of section 3.1.14, returning from outage earlier than planned includes circumstances where the outage has been cancelled, delayed, recalled, or revoked.</p>
18	Market Rules - Chapter 7, section 3.1.14.5	<p>Please specify the market manual reference for ADE materiality threshold.</p>	<p>The materiality threshold can be found in Market Manual 4.1, section 7.5.1 - Enforcement of the Availability Declaration Envelope. This detail will be included in the discussion section of the amendment proposal document submitted to the Technical Panel for review and consideration.</p>
19	Market Rules - Chapter 7, Section 3.2.3	<p>Please specify the market manual reference provided within this section.</p>	<p>Market Manual 4.1, section 2.4.1 specifies how a dispatchable load can identify all or a portion of their load as non-dispatchable. The IESO will add detail to clarify that the process described in section 2.4.1 also applies to a dispatchable load’s day-ahead market submission specified in section 3.2.3 of Chapter 7.</p>

ID	Section	Feedback	IESO Response
20	Market Rules - Chapter 7, Section 3.2.5	This section states that approval may be granted for software, hardware, or communications system outages. Please clarify if this approval applies to the IESO's ability to receive information or does it apply to an MP's ability to submit information, or if it applies to both.	The failures and outages described in section 3.2.5 of Chapter 7 apply to both the IESO's ability to receive information and a market participant's ability to submit information.
21	Market Rules - Chapter 7, Section 3.3.1	This section states that day-ahead dispatch data will be "converted" per Section 3.1.10. However, Section 3.1.10 does not use the term "conversion". What is meant by "conversion" in this context?	Section 3.1.10 specifies that dispatch data submitted in the day-ahead market will be treated as a submission of dispatch data into the pre-dispatch process/real-time market. Section 3.3.1 is intending to specify that a day-ahead market submission will be converted to a real-time market submission of dispatch data, unless subsequently resubmitted or revised.
22	Market Rules - Chapter 7, Sections 3.3.3.4, 3.3.3.5 and 3.3.3.6	<p>1. Please confirm that the "latest offer submitted" refers to the last offer received by the IESO prior to the start of the calculation engine run.</p> <p>2. Would MPs be able to update/revise offers before the start of the next calculation run? For example, if an MP submits an incorrect offer for the next day at 17:30 due to system error, would the MP be able to replace the incorrect offer by resubmitting a replacement offer at 18:25 prior to the start of the first PD calculation run for next day, which initiates at 20:00?</p> <p>3. OPG requests a similar assessment of the above question for Sections 3.3.3.5 and 3.3.3.6, i.e. would the MP be able to revise offers prior to the start of the next calculation engine run?</p>	<p>1. Correct, with respect to sections 3.3.3.4 - 3.3.3.6, the "latest offer submitted" represents the most recent offer submitted (and not rejected by the IESO) prior to the specified time within the section, e.g. submitted to establish the resources availability declaration envelope under 3.1.11 or prior to 20:00 EST. Those timelines are associated with the start of either the day-ahead market calculation engine or the first run of the pre-dispatch calculation engine for the next day at 20:00 EST.</p> <p>2. Subject to the revision restrictions outlined in section 3.3 of Chapter 7, a registered market participant is able to revise submitted dispatch data prior to the initialization, or next run, of the pre-dispatch calculation engine. In the example provided the market participant would be able to revise their dispatch data for the next day prior to 20:00 EST.</p> <p>3. For section 3.3.3.5, the revision restriction is limited to the resources speed no-load offer and energy offer price. A registered market participant is able to increase its speed no-load offer or energy offer prices prior to the initialization of the first pre-dispatch calculation engine run for the next day at 20:00 EST. With respect to section 3.3.3.6, the revision restriction is limited to the resources start-up offers. The market rules do not allow a registered market participant to increase its start-up offers from those submitted to establish the</p>

ID	Section	Feedback	IESO Response
			resources availability declaration envelope i.e. submitted during the DAM submission window.
23	Market Rules - Chapter 7, Sections 3.3.3.4, 3.3.3.5 and 3.3.3.6	With regards to "latest offer submitted", please clarify if the offer submitted at 17:30 is allowed to be higher than the offer submitted at 18:30, even though the PD engine has not started yet?	<p>With respect to sections 3.3.3.4 &amp; 3.3.3.6, the revision restrictions are not associated with the commencement of the pre-dispatch calculation engine, but rather the restrictions are tied to whether the resource has received a day-ahead operational schedule as a result of the offers that were submitted to establish the resource's availability declaration envelope in the day-ahead market. Therefore, the "latest offer submitted" under sections 3.3.3.4 &amp; 3.3.3.6 is the latest offer submitted for the day-ahead market and may not be increased prior to the commencement of the pre-dispatch process at 20:00 EST, if the resource has received a day-ahead operational schedule.</p> <p>With respect to section 3.3.3.5, if the resource has not received a day-ahead operational schedule, the resource would be permitted to increase its speed no-load offer and energy offer prices for quantities up to and including its minimum loading point at any time prior to 20:00 EST/commencement of the pre-dispatch process. It is permitted for speed no-load offer and energy offer price at 17:30 to be higher than a revised submission at 18:30.</p>
24	Market Rules - Chapter 7, Sections 3.3.3.8 and 3.3.3.10	The conditional statements that open Sections 3.3.3.8 and 3.3.3.10 are identical and the subjected Sections 3.3.3.9 and 3.3.3.11 are almost identical. Please clarify the different in intent between these two sets of sections.	<p>Section 3.3.3.8 specifies the revision restriction for the quantities above the resources minimum loading point and up to resources binding pre-dispatch advisory schedule, while section 3.3.3.10 specifies the revision restriction for the quantities that exceed the resources binding pre-dispatch advisory schedule.</p> <p>These rules are separated because the exceptions to the revision restriction are different based on the quantity. Section 3.3.3.11, which applies to the quantities that exceed the resources binding pre-dispatch advisory schedule, includes an additional circumstance related to the temporary revisions of a resource's energy offer reference level. That additional circumstance is not included in section 3.3.3.9, as it does not apply to the quantities above the resources minimum loading point and up to the resources binding pre-dispatch advisory schedule.</p>

ID	Section	Feedback	IESO Response
25	Market Rules - Chapter 7, Section 3.3.4	"Generation resource" is italicized, but it does not appear as a defined term in Market Rules Chapter 11.	<p>The term "generation resource" was defined as part of MR-00461-R00: Market Renewal Program: Energy - Batch 1 Definitions as follows: "generation resource means a resource modelled to represent one or more generation units"</p> <p>Definitions that have received provisional approval are available in the consolidated draft on the MRP webpage and will be included in the Final Alignment version of Chapter 11.</p>
26	Market Rules - Chapter 7, All Sections, Section 3.5.14	<p>1.Please clarify instances where Section 3.5.14 can be triggered and how a market participant (MP) would be eligible to submit a minimum hourly output offer.</p> <p>2.What is meant by spill restriction in Section 3.5.14.1 in triggering the use of the minimum hourly output parameter?</p> <p>3.How would the MP use the Minimum Hourly Output parameter to prevent the triggering of a spill restriction, if spill restriction refers to preventing the triggering of a sluice gate to initiate spill.</p>	<p>The reference to spill restrictions in the Market Rules Chapter 7 s3.5.14.1 describes the situation where spill can be initiated through the sluice gates in lieu of generating (i.e. generating 0 MW), or where the resource can generate at or above the minimum hourly output (MHO) value, but there are limitations that will prevent the resource from responding to dispatch instructions between 0 MW and the MHO value. Spill restriction does not refer to the requirement to maintain a certain level of spill through the sluice gates for a certain period of time.</p> <p>The MHO parameter indicates that a resource must generate at, or above, the MHO value, or can initiate spill to avoid generating. If the resource is required to generate at or above a value for a minimum amount of time, to avoid operating in a way that would endanger the safety of any person, damage equipment, or violate any applicable law, then the resource may request a minimum constraint in real-time, or use the hourly must-run parameter, if appropriate.</p>
27	Market Rules - Chapter 7, Sections 3.5.15.1 and 3.5.17.1	MW should not be pluralized, as MWs indicates megawatt·second. There are other instances in the Market Rules and Market Manuals that should be revised from "MWs" to "MW".	Correct. The IESO has replaced each reference to "MWs" in Chapter 7 with the correct term "MW".

ID	Section	Feedback	IESO Response
28	Market Rules - Chapter 7, Section 3.5.23	<p>This section, along with Market Manual 4.1 Section 2.1.8, outlines the submission value requirement for linked forebay, time lag and MWh Ratio parameters. However, there is no submission timing requirement for using this set of parameters.</p> <ol style="list-style-type: none"> <li>1. Please clarify if the linked forebay parameters can be used in both the Day-Ahead Market (DAM) and Pre-Dispatch (PD) timeframes.</li> <li>2. Please provide the detail on what conditions and when MPs can submit linked forebays in the DAM timeframe.</li> </ol> <p>OPG feedback from July 24, 2020 (feedbacks #9 and #10) and the follow-up feedback on December 18, 2020 (feedback #1 – IESO Responses ID 493) both express concern regarding the IESO’s verbiage during the Market Renewal Energy Detailed Design Engagement around the use of the new hydroelectric parameters (e.g. linked forebays), which is restrictive to limiting the use of linked forebays to very rare situations where SEAL was imminent in the DA timeframe allowing for the use of the new parameters. This verbiage has continued through to the current iteration of Section 3.5.23: “...if the submission of the above daily dispatch data parameters is necessary to prevent the resource from operating in a manner that would endanger the safety of any person, damage equipment, or violate any applicable law.”</p> <p>OPG would reiterate that, with the as-written Section 3.5.23, it remains unclear to MPs whether the hydroelectric parameters may be used in DA and PD for the purpose of producing feasible DAM and PD schedules, which if dispatched in the Real-Time (RT) could reasonably be expected to prevent the resource from operating in a manner that would endanger the safety of any person, damage equipment, or violate any applicable law (SEAL). It is unclear if SEAL conditions would ever apply in the DA timeframe since DAM schedules are financial commitments, not physical obligations.</p> <p>OPG strongly recommends the language in Section 3.5.23 to be revised to reflect the above concern. In particular, the language should be revised to</p>	<p>Linked forebay parameters may be submitted in both the Day-Ahead Market (DAM) and Pre-Dispatch (PD) timeframes. Market participants may submit the linked forebay parameters when their reasonable expectation is that these constraints will be required to prevent the resource from operating in a manner that would endanger the safety of any person, damage equipment, or violate any applicable law. Market Rule Chapter 7 s.3.5.23 has been revised.</p>

ID	Section	Feedback	IESO Response
		<p>incorporate the option of triggering linked forebay submissions based on physical and/or operational constraints in DA timeframe that could result in SEAL concerns, but those SEAL concerns would not materialize until closer to RT.</p> <p>OPG proposes the following revision to the above italicized passage: "...if the submission of the above daily dispatch data parameters could reasonably be expected to prevent the resource from operating in a manner that would endanger the safety of any person, damage equipment, or violate any applicable law."</p>	
29	Market Rules - Chapter 7, Section 3.6.5	What is the minimum value for reserve loading point?	The minimum values for reserve loading point are identified in Market Manual 4.1 Section 3.1.4.
30	Market Rules - Chapter 7, Section 3.6.7	<p>This section indicates that MPs would have to cancel operating reserve (OR) offers in the pre-dispatch timeframe if the resource's pre-dispatch energy schedule is less than its reserve loading point.</p> <p>How would the calculation engines solve for OR shortfall in RT if resources must cancel OR due to the energy dispatch falling under the reserve loading point? This also creates logistical confusion if MPs must cancel/un-cancel based on changes (energy schedule going above or falls below reserve loading point) to pre-dispatch schedule in future hours.</p> <p>OPG request the IESO to incorporate the resource's reserve loading point within the calculation engine process to avoid the risk for OR shortfall as well as administrative burden outlined above.</p>	<p>For clarification, section 3.6.7 of the proposed market rules does not require withdrawal of operating reserve offers in all cases where a resource's pre-dispatch energy schedule is less than its reserve loading point. This is only required if the resource cannot provide the scheduled operating reserve, and subject to any applicable submission restrictions does not preclude the market participant from subsequently submitting operating reserve offers which the resource would be capable of providing. A change has been made to the rule to indicate that it applies to "scheduled" operating reserve.</p> <p>Operating reserve will continue to be managed as it is today. Any potential operating reserve shortfalls will be pro-actively identified and steps will be taken to resolve any identified shortfall prior to real-time.</p> <p>Reserve Loading Point is incorporated in all three calculation engines.</p> <ul style="list-style-type: none"> <li>Appendix 7.5 - The Day-Ahead Market Calculation Engine - Sections 4.2.2.15, 4.2.2.16, 8.5.4.6 and 8.5.4.7.</li> <li>Appendix 7.5A - The Pre-Dispatch Calculation Engine Process - Sections 4.4.2.15, 4.2.2.16, 8.5.5.6 and 8.5.5.7.</li> </ul>

ID	Section	Feedback	IESO Response
			<ul style="list-style-type: none"> <li>Appendix 7.6A - The Real-Time Calculation Engine Process - Sections 4.2.2.12, 4.2.2.13, 8.5.4.6 and 8.5.4.7.</li> </ul>
31	Market Rules - Chapter 7, Sections 4.3.1 and 4.3.2	How would the IESO communicate a DAM failure to MPs?	The IESO will advise market participants of a failure of the DAM via the publication of a DAM notification as noted in Market Manual 4.2 section 7.2. Note that this section originally indicated an advisory notice would be issued under this scenario, however this has been corrected.
32	Market Rules - Chapter 7, Section 4.3.3	Please outline the process on how the next day's market will be run in the Real-Time in the instance of DAM failure	<p>Section 4.3.3 simply removes the dependency to establish an Availability Declaration Envelope (ADE), in the event of a DAM failure, to participate in the real-time market. The obligations associated with operating during the real-time market irrespective of a DAM failure, are documented in Chapter 7, Section 5 "The Pre-Dispatch Process" and Chapter 7, Section 6 "The Real-Time Market".</p> <p>The process is specified in Market Manual 4.2 section 4.4.</p>
33	Market Rules - Chapter 7, Section 5.1	The current Market Rules Chapter 7 (MDP_RUL_0002_07, Issue 51) includes a deadline for running the initial PD schedule for the following day. This is absent from the Market System and Operations Batch Chapter 7. What is the rationale for this removal?	The targeted timeline for determining the initial pre-dispatch schedule has been included in MM 4.3 s.2.2 Pre-Dispatch Process. This was removed from the market rules in an effort to reduce the amount of duplicative content between the rules and manuals.
34	Market Rules - Chapter 7, Section 5.7.3	<ol style="list-style-type: none"> <li>Would the published report be a global system report or a private MP report?</li> <li>Please quantify "significant difference".</li> </ol>	<ol style="list-style-type: none"> <li>Section 5.7.3 and similar section 6.6.5 use the defined term 'publish', which means the corresponding report, the Dispatch Deviation Report, is public. Please note that there is an existing market rule requiring the IESO to publish the report which references the "dispatch algorithm." Upon further review the IESO has determined the report is intended to cover significant differences between dispatch instructions and the real-time calculation engine, not the pre-dispatch calculation engine. Section 5.7.3 will be deleted and section 6.6.5 will be maintained.</li> <li>For quantification, please see the report on the public reports site <a href="http://reports.ieso.ca/public/DispDeviation/">http://reports.ieso.ca/public/DispDeviation/</a>.</li> </ol>

ID	Section	Feedback	IESO Response
35	Market Rules - Chapter 7, Sections 10.1.6, 10.1.7, and 10.1.8	These three sections provide IESO with flexibility (through the use of “shall use reasonable efforts”) for not sending timely start-up notices. There should be similar flexibility provided for MPs for any failure to meet the requirements of such notices if the failure was due to late issuance by the IESO.	<p>Sections 10.1.6 and 10.1.7 do not grant the IESO flexibility in issuing timely start-up notices. Section 10.1.6 obliges the IESO to use reasonable efforts to ensure that: (1) start-up notices for day-ahead operational commitments are consistent with the resource’s most recent pre-dispatch schedule, (2) start-up notices for pre-dispatch operational commitments are consistent with the resource’s binding pre-dispatch advisory schedule, and (3) start-up notices issued in advance of the pre-dispatch schedule are consistent with the resource’s day-ahead schedule. Section 10.1.7 permits the IESO to depart from the pre-dispatch schedule, pre-dispatch advisory schedule, or day-ahead schedule, as the case may be, or to not issue a start-up notice, for reasons of adequacy, security, engine failure, material error, material change, or market suspension.</p> <p>With the exception of start-up notices issued to resources with day-ahead commitments whose lead time requires them to start-up in advance of the pre-dispatch process (section 10.1.2), start-up notices issued to maintain reliability (section 10.1.3), and start-up notices whose issuance is delayed by software, hardware, or communication system failures (section 10.1.8), section 10.1.1 obliges the IESO to issue start-up notices no later than 30 minutes after the hour corresponding to the applicable pre-dispatch calculation engine run that is immediately prior to resource’s start-up procedures as required by its lead time.</p> <p>Under section 10.1.4, the market participant’s obligation to respond to the start-up notice no later than 15 minutes prior to the start of the next dispatch hour, only applies where the IESO has issued the start-up notice no later than 30 minutes after the hour corresponding to the applicable pre-dispatch calculation engine run that is immediately prior to resource’s start-up procedures as required by its lead time. Where the IESO issues the start-up notice later than 30 minutes after the relevant hour, the market participant’s obligation is simply to respond “as soon as reasonably practicable.” Likewise, under section 10.1.8, where the IESO issues the start-up notice late due to software, hardware, or communication system failures, the market participant’s obligation is to respond “as soon as reasonably practicable.”</p>



ID	Section	Feedback	IESO Response
36	Market Rules - Chapter 7, Sections 10.2.5, 10.2.6, and 10.2.7	Similar to the above comment, these sections provide IESO with flexibility (such as through the use of “shall use reasonable efforts”) for delays in issuing notices of decommitment. There should be similar flexibility provided for MPs for any failure to meet the requirements of such notices if the delay was due to delays on the IESO’s part.	<p>Sections 10.2.5 and 10.2.6 do not give the IESO flexibility with regard to issuing timely notices of de-commitment. Section 10.2.5 obliges the IESO to use reasonable efforts to ensure that the notice of de-commitment is consistent with the pre-dispatch schedule. Section 10.2.6 permits the IESO to depart from the pre-dispatch schedule, or to not issue a notice of de-commitment, for reasons of adequacy, security, engine failure, material error, material change, or market suspension.</p> <p>Section 10.2.1 obliges the IESO to issue a notice of de-commitment no later than 30 minutes after the hour, corresponding to the applicable pre-dispatch calculation engine run that has not scheduled the resource above its minimum loading point for the next dispatch hour.</p> <p>Section 10.2.7 permits the IESO to issue to a notice of de-commitment “as soon as reasonably practicable” where there is a software, hardware, or communication system failure. Where the IESO issues the de-commitment notice late due to a software, hardware, or communication system failure, the market participant’s obligation is to respond to the notice “as soon as reasonably practicable.”</p>
37	Market Rules - Chapter 7, Sections 10.3.2	Please specify the market manual reference that outlines the procedure on how an MP can withdraw from DA or RT commitments due to SEAL reasons.	Market Manual 4.2, section 8.1 and Market Manual 4.3, section 5.9 include supplemental information regarding withdrawing from commitments, including withdrawals for reasons of safety, equipment damage, and applicable law.
38	Market Rules - Chapter 7, Sections 10.3.3	Please specify the market manual reference that outlines the procedure on how an MP can withdraw from DA or RT commitment due to non-SEAL reasons.	Market Manual 4.2, section 8.1 and Market Manual 4.3, section 5.9 include supplemental information regarding withdrawing from commitments, including withdrawals for reasons other than safety, equipment damage, and applicable law.
39	Market Rules - Chapter 7, Sections 10.3.4	OPG proposes to include a similar statement for submitting offers in the current day if the commitment starts in HE1 of the next day and ramp up hours are needed prior to that time in the previous day.	The IESO agrees with the suggested change. The applicable market participants must submit offers for the ramp to MLP period associated with NQS unit starts committed by DAM or PD. This is required by the real-time calculation engine to dispatch a NQS generation unit to its minimum loading

ID	Section	Feedback	IESO Response
			point using the submitted ramp rate from the time it synchronizes. New section 10.3.5 has been included in the proposed market rules.
40	Market Rules - Chapter 7, Sections 11.2.1	Please provide provisions to also allow for synchronization in instances where an MP's resource is required to sync in the absence of an energy schedule.	<p>The market rules in section 11 allow for synchronization as follows:</p> <p>Section 11.2.2A of Chapter 7 allows for an alternative path to synchronize that would not require a non-quick start resource to have an energy schedule that led to a start-up notice. The rule allows for a non-quick start resource to request approval from the IESO at least 2 hours in advance of its intended synchronization time.</p> <p>With respect to quick start resources, the expectation is that any requirement for synchronization would be accomplished through a form of communication with the IESO that is a dispatch instruction. Therefore section 11.2.1 authorizes synchronization upon the receipt and acknowledgement of a dispatch instruction.</p>
41	Market Rules - Chapter 7, Sections 11.2.2A and 11.3.2	To remove any potential confusion, these sections should include a statement that states the conditions are applicable to non-quick start units that are not generator offer guarantee (GOG) eligible. A GOG-eligible resource is also a non-quick start (NQS) resource, but a non-quick start resource may not be a GOG-eligible resource.	Sections 11.2.2A and 11.3.2 are applicable to all non-quick start resources, regardless of GOG-eligibility. These sections were drafted intentionally to allow GOG-eligible resources the option to use either the path for synchronization/de-synchronization limited to GOG-eligible resources (11.2.2 & 11.3.1A) or the path for any non-quick start resource (11.2.2A & 11.3.2).
42	Market Rules - Chapter 7, Section 11.3.2	<p>This section outlines the requirement for MPs to provide one hour notice to the IESO prior to desyncing a NQS resource from the grid.</p> <p>However, Section 10.2.1 indicates that the IESO shall issue a notice of decommitment to NQS resources no later than 30 minutes before the decommitment hour. Section 10.2.1 is aligned with the graph presented on slide 65 from the Market Renewal Program Implementation Market Rules and Market Manuals: Market and System Operations Q&amp;A Session for GOG-Eligible Non-Quick Start Resources presentation from October 3, 2023.</p>	<p>Section 11.3.2 and 10.2.1 are not in conflict. Please note that only GOG-eligible resources will receive a notice of de-commitment in accordance with section 10.2.1. When a GOG-eligible resource receives a notice of de-commitment, the process for de-synchronization is specified in section 11.3.1A. Section 11.3.1A obligates GOG-eligible resources to request to de-synchronize once it has received a dispatch instruction below its minimum loading point.</p> <p>Section 11.3.2 is intended to address instances where a non-quick start resource (not limited to GOG-eligible resources) has not received a notice of de-commitment and is seeking to de-synchronize. In these instances, the requirement will be for MPs to provide one hour notice.</p>

ID	Section	Feedback	IESO Response
		Taking into account both points above, Sections 11.3.2 and 10.2.1 are in conflict with each other, as the MP would not be able to provide a one-hour notice to the IESO prior to desync if the MP is only notified 30 minutes prior to de-commitment time.	The process for synchronization/desynchronization is further described in MM 7.1 section 4.2.
43	Market Rules - Chapter 7, Section 22.9.1.3	Virtual trader should be italicized as it is a defined term.	Correct. The IESO will apply the update in section 22.9.1.3 via the Final Alignment batch of market rule amendments.
44	Market Rules - Chapter 7, Section 22.10	OPG recommends the inclusion of a short introduction sentence stating that this section sets out criteria for determining constrained areas for the purpose of performing conduct and impact tests described in Sections etc. etc.	The IESO does not believe it is necessary to include an introduction as part of section 22.10.
45	Market Rules - Chapter 7, Section 22.11.1.2	"Market participant behaviour" is in a different font compared to the main text.	The IESO will update the misaligned font in section 22.11.1.2 via the Final Alignment batch of market rule amendments.
46	Market Rules - Chapter 7, Section 22.13.1	When indicating "100%" above the reference level for the set of ex-ante validation parameters, please confirm that the resultant threshold is double the reference level value.	Confirmed.
47	Market Rules - Chapter 7, Sections 22.13.1.3.2 and 22.13.1.4.2	<p>From the June 21, 2022 stakeholder engagement presentation, the Minimum Generation Block Down-Time (MGBDT) transition time for the WARM and COLD thermal states was increased from 24 hours to 99 hours.</p> <p>Sections 22.13.1.3.2 and 22.13.1.4.2 provides the validation for the more restrictive threshold for the WARM and COLD thermal states, i.e. minus three hours below the reference level value.</p> <p>In practice, the difference between MGBDTs for the WARM and COLD thermal states are significant and will always be outside the three-hour threshold. Thus, MPs will not be able to meet this testing threshold. Please</p>	<p>The question states that the values of MGBDT(warm) and MGBDT (cold) will always differ by more than 3 hours and incorrectly concludes that as a result the validations of submissions for these parameters will always fail.</p> <p>The values of MGBDT(warm) and MGBDT(cold) are allowed to differ by more than 3 hours. As specified in section 22.13.1, submitted MGBDT values are validated against the "corresponding reference level value."</p>
		In practice, the difference between MGBDTs for the WARM and COLD thermal states are significant and will always be outside the three-hour threshold. Thus, MPs will not be able to meet this testing threshold. Please	As per section 22.13.1.3.2 the submitted MGBDT(warm) will be rejected if it less than the lesser of:

ID	Section	Feedback	IESO Response
		re-evaluate the three-hour threshold considering the increase of the transition time to 99 hours for the WARM and COLD thermal states.	50% MGBDT(warm) reference level or the MGBDT(warm reference level – 3 hours).
			<p>As per section 22.13.1.4.2 the submitted MGBDT(cold) will be rejected if it less than the lesser of:</p> <ul style="list-style-type: none"> <li>• 50% MGBDT(cold) reference level; or</li> <li>• the MGBDT(cold reference level – 3 hours).</li> </ul> <p>As the reference level values of MGBDT(warm) and MGBDT(cold) are allowed to differ by more than 3 hours the submitted values of MGBDT(warm) and MGBDT(cold) will also be allowed to differ by more than 3 hours.</p>
48	Market Rules - Chapter 7, Pre-Dispatch Mitigation	<p>OPG understands that IESO will not revisit the mitigation results during PD once the resource is mitigated for any given dispatch hour. Taking that into account, would the IESO update the reference level values for that dispatch hour if a higher reference level is requested and approved?</p> <p>For example, a hydroelectric resource has a baseline energy financial reference level of \$60 and an alternate energy financial reference level of \$80. During the 07:00 Pre-Dispatch run, the offer for HE20 is mitigated to \$60. However, at 15:30, the MP requests the alternative reference level for HE20 and is approved. Would the mitigated price for the resource for HE20 be updated to approved alternate reference level of \$80?</p>	<p>When temporary reference change requests are approved, the updated reference level values are reflected in an updated version of the Financial Reference Level Value Report, and the updated reference level values are used by subsequent iterations of the relevant calculation engine that are creating schedules and prices for the relevant dispatch hour in the look-ahead period.</p> <p>In the example provided, the energy reference level value of \$80/MWh would be provided to the relevant calculation engines to determine prices and schedules for HE20 following the 15:30 request.</p>
Market Rules – Chapter 7, Appendix 7.1 – 7.4 & 7.7			
49	Market Rules - Chapter 7, Appendix 7.7, Section 1.3.3	Please provide a definition of critical equipment.	<p>The term critical equipment is not being introduced or altered as part of Market Renewal. Appendix 7.7 is utilizing the classification of equipment as critical to identify when a request for segregation has to be submitted during the day-ahead market submission window. Critical equipment is explained in detail within Market Manual 7.3: Outage Management, section 3.1 Criticality Levels of Equipment.</p>
Market Rules – Chapter 7, Appendix 7.8			

ID	Section	Feedback	IESO Response
50	Market Rules - Chapter 7, Appendix 7.8, General	<p>OPG has read and reviewed Appendix 7.8. The market rules description of Economic Operating Point (EOP) is very complex. It is difficult for MPs to self-educate for full comprehension based on the rules presented. The EOP calculation process is complicated to the level that it is impossible for MPs replicate and validate. As a result, MPs can only accept EOP settlement calculations as presented by the IESO. This is a high financial risk to MPs.</p> <p>The EOPs are part of the Financial Settlement amount calculation provided by the IESO. With the inability of MPs to perform shadow calculations for verification, it is imperative that the IESO ensure the correct and complete calculation of the EOP.</p> <p>As presented in the Appendix 7.8, the calculation of the three EOP categories (DAM_LC_EOP, RT_LC_EOP and RT_LO_EOP) requires large data set with various constraints. OPG requests the IESO to clarify if all EOP calculation data, such as Market-Participant/IESO Data Parameters and Constraint Violation Variables/Results, will be published as supporting data for EOP results.</p> <p>As MPs have limitation in simulating the EOP calculation, it would be very helpful if the IESO could help MPs to simulate the EOP results during the Market Trial and Sandbox testing phases. The IESO should include the calculation of Energy and Operating Reserve EOPs for different resource types, such as hydro, non-quick starts and dispatchable nuclear, with the inclusion of resource types to be based on MP registration data and testing offers.</p> <p>It is also important to have sufficient simulated scenarios during the Market Trial and Sandbox testing phases to ensure the EOPs can be calculated correctly and completely, and is reflective of real market operations.</p>	<p>Market participants will have access to all but one of the inputs required to be able to perform shadow EOP calculations, and will have the ability to deduce the remaining input. With these inputs and the details provided in Appendix 7.8, market participants will be able to perform shadow EOP calculations in order to validate IESO results.</p> <p>Inputs into the EOP calculations include a combination of:</p> <ul style="list-style-type: none"> <li>a) Inputs submitted by market participants, such as offer/bid data and associated parameters, registration information, and outage information.</li> <li>b) Values determined by the IESO and communicated to market participants in market results, such as applicable locational marginal prices and specific constraint values applied by the IESO, and</li> <li>c) Information on outcomes in which penalty prices are violated.</li> </ul> <p>The input information identified in a) and b) is accessible to market participants, and is sufficient for calculating real-time EOPs for all resources. Furthermore, it is sufficient for calculating day-ahead EOPs for all resources except those evaluated as cascade hydro (i.e. those with submitted MWh Ratio and Time Lag).</p> <p>Input c) is used in addition to inputs a) and b) in the determination of day-ahead lost-cost EOPs for resources evaluated as cascade hydro. In events where at least one penalty price is violated, the day-ahead lost cost EOP determination for all hours of the day applicable to such resources is impacted. Sections 2.5.1.1 and 2.5.1.2 of Appendix 7.8 set out two criteria which may trigger an optimized EOP approach for these resources. Section 2.5.1.2 is satisfied when an applicable constraint submitted by a market participant is binding, and the necessary information to determine this will be available to the market participant. The penalty price violation events described in section 2.5.1.1 are not available to market participants, however the outcome of whether an optimized EOP approach was utilized would allow a market participant to deduce whether section 2.5.1.1 was satisfied upon receiving their EOP results.</p>

ID	Section	Feedback	IESO Response
			The IESO can confirm that market participants will have an opportunity to view EOP results as part of market participant end-to-end testing activities with the intent of providing EOP results across a variety of day-ahead and real-time scenarios.
	Market Rules – Chapter 11		
51	Market Rules - Chapter 11, bid	Suggest revising this definition to include bids from Demand Response participant in Capacity Auction.	The term bid is not resource specific. The existing term 'demand response energy bid' defines bids from an hourly demand response resource or capacity dispatchable load resources as bids.
52	Market Rules - Chapter 11, day-ahead market expiration	Suggest including the failure declaration timeline of 15:30 EPT in the definition in addition to referencing Market Rules Chapter 7 Section 4.3.2.	The failure declaration timeline is included in the definition by reference to section 4.3.2 of Chapter 7. In this instance, the IESO prefers to not duplicate the timeline in the Chapter 11 definition.
53	Market Rules - Chapter 11, speed no load offer	Please provide the rationale behind the change in the definition, which was changed from "injecting no energy" to "with zero net energy".	The initially proposed changes to the definition of speed no-load offer were introduced as part of MR-00461-R01: Market Power Mitigation: Second Batch Definitions, however they were not required. The current changes proposed revert the definition to that of the current definition of speed no-load cost with only minor modifications for Market Renewal (i.e. incorporating the term resource, changing 'value' to 'dollar amount' and reverting back to the original language "with zero net energy").
	Market Manual 4.1		
54	Market Manual 4.1, Section 2.1.1.1	<p>“Non-quick start resource excluding nuclear – The IESO tool does not automatically validate for compliance with MR Ch.7 s.3.5.5.7.”</p> <p>Please clarify if the above passage mean that there is no automatic validation of the second P,Q pair for offers submitted for NQS resources.</p>	<p>The IESO confirms that the tool will not prevent submission of a second PQ pair with a quantity that is not equal to the NQS resource's MLP. It is therefore the market participant's responsibility to ensure MR 7 Sec 3.5.5.7 is adhered to.</p> <p>Note that the IESO will update Chapter 7, section 3.5.5.7 to afford more flexibility to market participants. Under the updated language, market participants will be obligated to submit a quantity equal to its MLP in one of its</p>

ID	Section	Feedback	IESO Response
			price-quantity pairs, rather than being obligated to submit its MLP in its second price-quantity pair.
55	Market Manual 4.1, Section 2.1.4	Please provide reference to the “compliance aggregation interpretation bulletin”.	This section will be updated to reference the document ID number IMO_MKRI_0001 v.7.0.
56	Market Manual 4.1, Section 2.1.13.1	<p>For requests to establish a Minimum Loading Point (MLP), an outage slip must be submitted to indicate the period that the MP expects to operate above MLP. The new requirement is that the outage slip must be accompanied by revised offers to economically schedule the resources to the desired loading point.</p> <p>OPG strongly recommends the inclusion of the requirement for the IESO to accept offers in the mandatory window to reflect the change to MLP, otherwise, the offers would not reflect the actual conditions of the resources.</p> <p>For example, if the MLP increase starts at 02:00 and is expected to end at 14:00 and offers have been changed up to and including 14:00 to reflect this, there should be allowance for mandatory window offer changes if the restrictions end early, such as at 11:30.</p> <p>Additionally, should MPs change the reserve loading point of the resource to be aligned with the outage slip and offers?</p>	<p>If a resource is required to operate above its minimum loading point an outage slip is not required, however the market participant must request a SEAL constraint from the IESO (reference Draft Market Manual 4.1 section 2.1.13.1).</p> <p>For a resource that expects to operate below its minimum loading point, the requirement to submit an outage slip derating for the resource and revise offers to economically schedule the resource is an existing requirement, and is stated in current Market Manual 4.2 section 2.4.1.</p> <p>The IESO criteria for approving offer price changes in the mandatory window is, subject to certain listed exceptions, that bid or offer price changes during the mandatory window will be rejected by the IESO. This is documented in current Market Manual 4.2 section B.2.2 and also in draft Market Manual 4.1 section B.4. This criteria is not changing as a result of MRP.</p> <p>As an NQS resource cannot be scheduled to provide operating reserve when scheduled below its MLP, a change to reserve loading point is not required under these circumstances.</p>
57	Market Manual 4.1, Section 2.1.18	Please clarify if the average quantity of energy in MWh in this section will be used as a limit to dispatch.	The parameter in this section is only used in the day-ahead and pre-dispatch timeframes, and does not affect real-time dispatch.

ID	Section	Feedback	IESO Response
58	Market Manual 4.1, Section 2.1.18.2	<p>The Ramp Hours to Minimum Loading Point (MLP) must be a whole number. What is the treatment for resources that have non-whole numbers for ramp hours?</p> <p>For example, Resource A has a Ramp Hours to MLP of 3.5 hours. If the unit must be at MLP at 12:00, it will need to synch to the grid at 08:30. However, if the Ramp Hours to MLP must be a whole number, and 3.5 hours round up to 4 hours, can Resource A still synch at 08:30, or would it have to synch at 08:00 based on the submitted dispatch data of 4 hours?</p> <p>What is the treatment for the rounding of ramp hours, for example, if the ramp hours to MLP is 3.4 hours, what would the MP submit? If the ramp hours to MLP is 3.5 hours, what would the MP submit?</p>	<p>A market participant should submit energy per ramp hour for any hour in which a resource will be synched to the grid and producing energy. This includes hours where the resource is only synched to the grid for part of the hour.</p> <p>Market participants submit energy per ramp hour to MLP, in accordance with MR Ch.7 s.3.5.33. Ramp hours to MLP is derived from the number of hours in the energy per ramp hour submission. As it is not possible to submit energy per ramp hour for a partial hour, ramp hours to MLP will always be a whole number.</p> <p>Using the example presented in the question, if a market participant submits energy per ramp hour for 4 hours, then the derived ramp hours to MLP will be 4 hours. If the resource receives a start-up notice requiring it to reach MLP at 12:00, the start-up notice will contain a synchronization time of 08:00, based on the derived 4 ramp hours to MLP. In this case, if the market participant submits an alternate synchronization time of 08:30, this alternate synchronization time will be accepted by the IESO provided that this time meets the following conditions (reference MM.4.3 s.5.6.1):</p> <ul style="list-style-type: none"> <li>• it is no earlier than one hour prior to the synchronization time indicated in the start-up notice;</li> <li>• it is no later than one hour after the synchronization time indicated in the start-up notice;</li> <li>• it is no later than the time indicated to reach the minimum loading point in the start-up notice; and</li> <li>• it is for a future time.</li> </ul> <p>Similar logic applies if the ramp hours to MLP is 3.4 hours. In this case the MP should submit an alternate synch time of 8:36.</p> <p>The IESO has added clarification to Market Manual 4.1, section 2.1.18.1.</p>



ID	Section	Feedback	IESO Response
59	Market Manual 4.1, Section 2.4.1	<p>“The dispatchable load is required to disregard the 0 MW dispatch instruction...”</p> <p>Is “disregard” in the above sentence equivalent to not acknowledging the dispatch from the MP’s end? Please provide the meaning of “disregard” in this sentence.</p>	<p>“Disregard” in this section means to accept the dispatch but to not follow the dispatch to 0MW. Please note that this process is not changing as part of Market Renewal.</p>
60	Market Manual 4.1, Section 3.1.1	<p>Please elaborate on what are “price restrictions” conditions.</p>	<p>Market Manual 4.1, section 3.1.1 clarifies that market participants for GOG-eligible resources may offer additional operating reserve quantities in hours that are subject to price revision restrictions under section 3.3.3.12 of Chapter 7 of the market rules. Section 3.3.3.12 provides that during the real-time market unrestricted window, where a GOG-eligible resource has received a binding pre-dispatch advisory schedule, has not received a day-ahead operational schedule, and has submitted an operating reserve offer, its market participant shall not increase its operating reserve offer prices above the operating reserve offer prices submitted for the corresponding dispatch hour used at the time of establishing the binding pre-dispatch advisory schedule.</p>
61	Market Manual 4.1, Section 3.1.2	<p>This section states only one class of OR being selected but does not indicate if the OR would cascade downwards as in the current market. Please confirm if OR cascading is still in effect after Market Renewal. For example, if only 10S was offered but was not scheduled, will this quantity cascade down to 10N for possible selection and so on?</p>	<p>This process remains unchanged. Operating reserve (OR) not selected for its submitted OR class will be considered to meet the requirement for the OR class below it. Please note that this does not change its submitted OR type.</p>
62	Market Manual 4.1, Section 4	<p>Recommend the fifth bullet point not be included in the list but be formatted as a stand-alone paragraph.</p>	<p>The IESO has re-formatted the fifth bullet point into a stand-alone paragraph.</p>
63	Market Manual 4.1, Section 4.1.1	<ol style="list-style-type: none"> <li>1. Are there submission restrictions at other boundary entities aside from Beauharnois, which are not part of the capacity market?</li> <li>2. “Resources” in the third paragraph should be the singular “resource”.</li> </ol>	<ol style="list-style-type: none"> <li>1. There are no other submission restrictions at other boundary entities as it pertains to the contents in this section. Please note that this section focuses specifically on which BER to use only and does not necessarily include other submission restrictions that might be found throughout the rest of the document.</li> </ol>

ID	Section	Feedback	IESO Response
			2. The IESO is unable to locate the plural of the term "resources" in the third paragraph "Additional submission instructions to supply operating reserve". Other instances of "resources" have been reviewed under section 4.1.1 and are pluralized as suitable.
64	Market Manual 4.1, Section 4.1.2	Recommend to revise: "...must register the capability to so with the IESO as..." to "...must register the capability to do so with the IESO as..."	Market Manual 4.1, section 4.1.2 reflects the proposed change.
65	Market Manual 4.1, Section 4.1.3.3	Does this section only apply in the [Dispatch Hour-1] timeframe?	In general, most of the situations in this section would occur in the [Dispatch Hour-1] timeframe but there are no limitations on the IESO to carry out these actions outside of this timeframe if prudent and necessary.
66	Market Manual 4.1, Section 4.3.1	<p>1. There is a typo in the passage: "Operating reserve offers – .... have committed capacity to an enteral control area..."</p> <p>2. Recommend revising "'e-Tag ID" field must include the correct tag naming convention as described in section 4.1.6: e-Tag;" to "'e-Tag ID" field must include the correct tag naming convention as described in section 4.1.3: e-Tag;"</p>	The IESO has made the suggested corrections.
67	Market Manual 4.1, Section 5	This section states that the virtual trader names will be used to identify dispatch data on virtual zonal resources. Please confirm if the virtual trader name will be the market participant name.	Correct, the virtual trader name will be the registered market participant name.
68	Market Manual 4.1, Section 7.1, Table 7-2	Table 7-2 describes timing of dispatch data submission but does not include timing for segregation mode. The paragraph following Table 7-2 provides the segregation mode timeframe through a reference to Market Rules Chapter 7 Appendix 7.7. OPG recommends to also include the segregation mode timing details in Table 7-2.	Table 7-2 has been updated to include segregation mode timing.
69	Market Manual 4.1, Section 7.2.1	If the standing dispatch data fails validation, would the non-failed portions of the dispatch data be used, or would the MP need to re-submit all of the standing dispatch data?	Where the standing dispatch data fails validation, everything submitted on the same form would also be considered as invalid. All dispatch data on the same form would need to be resubmitted to be reconsidered. Standing dispatch data

ID	Section	Feedback	IESO Response
			submitted on other forms could continue to successfully convert if there are no validation failures on those forms.
70	Market Manual 4.1, Section 7.4	Under the "Contingency plan" and "Alternative means of submission" sections, would the timelines (DAM / PD / RTM) be revised / extended if the IESO's electronic information system is unavailable, including tool failure, in order to account for the additional time it may take for MPs to submit the information via email or telephone as indicated?	The pre-dispatch and real-time processes run periodically and cannot be extended. For information regarding potential day-ahead market submissions during the restricted window, please see MR Ch.7 s.3.2.5.
71	Market Manual 4.1, Section 7.4	This section outlines alternate processes for participants to submit data via e-mail or telephone. OPG recommends the IESO to include a scenario(s) for email submissions of offers during Market Trials and End-to-End Testing.	The IESO will not be including a scenario for email submissions of offers during Market Trials as the alternate process to submit data via e-mail or telephone will not change from what is currently being done in the market. The alternate process is only used when there are tool issues that prevent market participants from submitting their bids and offers using the MIM API or EMI.
72	Market Manual 4.1, Section 7.4.3	In reference to the "price-quantity pair simplification", please clarify if this means that a max of five P,Q pairs per resource in total will be accepted via telephone.	Where the IESO accepts dispatch data submissions by telephone, it reserves the right to accept only simplified price-quantity pairs. Simplified price-quantity pairs include at least two but no more than five price-quantity pairs for each resource in each dispatch hour.
73	Market Manual 4.1, Section 7.5.1	In reference to "No automated check", please clarify if this section indicates that if an MP increases the quantity of energy offer/bid above the materiality threshold (15%, 10 MW), the offer will be automatically accepted by the IESO tool, but the submission may be subjected to compliance assessment at a later time.	That is correct.
74	Market Manual 4.1, Section 7.5.2, Table 7-9	Under Step 1, the MP must submit an increase to the Availability Declaration Envelope (ADE) with a reason code. The IESO has the discretion to accept or deny such a request. If the request is denied, the MP would have to provide a submission again with the original ADE value by the end of the mandatory window.	A market participant may choose to call the IESO to discuss the situation with control room operators to gain an indication of whether a submission would or would not be rejected. However, the process outlined in table 7-9 must still be followed to obtain the approval to expand the ADE. Please also note the additional information in Market Manual 4.1, Appendix B.3 regarding the compliance process after the dispatch day.

ID	Section	Feedback	IESO Response
		Can the MP verbally request an ADE expansion with the IESO prior to an actual submission of ADE expansion request, to avoid the additional administrative work in the case the ADE expansion request is denied?	
75	Market Manual 4.1, Section 8.1, Table 8-1	Suggest revising "...contains a summary the dispatch data submitted for the day..." to "...contains a summary of the dispatch data submitted for the day..."	The IESO has updated Market Manual 4.1 and inserted the missing word "of".
76	Market Manual 4.1, Appendix F.7	Please provide elaboration or graphical diagram explaining the "Submissions during the first 30 minutes of the hour", similar to the diagrams provided in the October 3, 2023 Q&A session on the Market and Systems Operations batch for Generator Offer Guarantee eligible Non-Quick Start Generators.	<p>Market Manual 4.1 Appendix F.7 indicates that submissions for the pre-dispatch process that are made in the first 30 minutes of an hour are automatically rejected if the submissions:</p> <ul style="list-style-type: none"> <li>a) increase energy offer prices above submitted offer prices for quantities above MLP; or</li> <li>b) increase operating reserve offer prices above submitted operating reserve offer prices.</li> </ul> <p>Note that Market Manual 4.1 Appendix F.7 has been revised to include item b) above.</p> <p>These restrictions are necessary to ensure compliance with Chapter 7 sections 3.3.3.8, 3.3.3.10 and 3.3.3.12 of the proposed market rules.</p> <p>These market rules contain restrictions on offer price increases for GOG-eligible resources that have received a binding pre-dispatch advisory schedule and conditionally apply to the dispatch hours in the binding pre-dispatch advisory schedule. Since pre-dispatch schedules and binding pre-dispatch advisory schedules are not issued until 30 minutes past the hour, during the first 30 minutes of an hour it is not possible to know whether any new binding pre-dispatch advisory schedules will be issued or whether any new submissions that increase the offer prices listed above will violate these rules. Therefore during the first 30 minutes of any hour, any submissions that raise the offer prices listed above are automatically rejected.</p>

ID	Section	Feedback	IESO Response
77	Market Manual 4.1, Appendix A.1	The IESO Participant Tool Training page has documents dating to 2019, along with instructions for the current market. Would the IESO refresh the Participant Tool Training for Market Renewal?	The IESO is planning to update the Participant Tool Training materials in Q2 2024 prior to the start of Market Trials.
78	Market Manual 4.1, Appendix B.3	With reference to the third paragraph of this section, if an MP submits an ADE offer for Resource A and is rejected, and the MP fails to submit a permissible replacement offer, would that result in Resource A not having any ADE offer in the market?	<p>The rejection would not remove the originally determined ADE value. If the newly submitted dispatch data was automatically accepted by the IESO's tools but subsequently rejected by the IESO, the market participant would be obligated to resubmit their dispatch data to a quantity that is permissible under the market rules, as their original data would not be automatically substituted.</p> <p>The IESO has added clarification to Market Manual 4.1, Appendix B.3.</p>
79	Market Manual 4.1, List of Acronyms	The List of Acronyms is incomplete for this market manual.	The list of acronyms has been updated.
Market Manual 4.2			
80	Market Manual 4.2, Section 2.2	Please confirm that the deadline listed within the section is only applicable to critical generation equipment only. If not, please clarify the specific critical equipment this section would apply to.	Any SMO request that includes any critical equipment must be submitted by 8:00 EPT on the day before the dispatch day. Through third party viewership agreements, applicable market participants can access current information on the outage criticality level for relevant equipment that they do not own within Online IESO.
81	Market Manual 4.2, Section 2.3.4	<p>Please provide a detailed process and timing overview for contacting the IESO for the treatment of MGBDT over midnight, including step-by-step actions required by the MP and the IESO, the timeline for such requests and the potential results.</p> <p>1. Is the process outlined in Section 2.3.4 applicable to DAM only? Would it be applicable to the Pre-Dispatch timeframe?</p> <p>2. Please provide a listing of the expected outcomes to such a request and provide alternative scenarios, for example when the MP puts in a bridging request, the following could take place:</p>	<p>Process Outline:</p> <p>A. The Day-Ahead Commitments report is published daily after DAM completion. The Pre-Dispatch Commitments report is published hourly after each successful run of pre-dispatch.</p> <p>B. Market participant should review these two reports whenever a new report is published and inform the IESO of any cases where there are two commitments for the same resource that are separated by less than the MGBDT(hot).</p> <p>C. Upon being informed of this, the IESO will bridge the two commitments with a reliability commitment unless doing so would create a reliability concern. In the case of a reliability concern, the IESO would follow the</p>

ID	Section	Feedback	IESO Response
		<p>a. The IESO extends the operating commitment for the current day in order to bridge the NQS resource schedule between the two dispatch days over the midnight period; or</p> <p>b. The IESO removes the commitment for the NQS resource for the next day.</p>	<p>process outlined in market manual 4.3 section 5.10 (IESO Cancellation of Commitment for Generator Offer Guarantee Eligible Resources).</p> <p>1. The process outlined in market manual 4.2 section 2.3.4 is also applicable to pre-dispatch as there are circumstances when the pre-dispatch process can create a commitment that violates a resource's MGBDT(hot). Market Manual 4.3 will be revised to include this possibility.</p> <p>2. There are two possible outcomes to an MP informing the IESO that they have a set of commitments that are separated by less than MGBDT(hot).</p> <p>a) The two commitments are bridged with a reliability commitment, or  b) The IESO cancels a commitment for reliability reasons as per section market manual 4.3 section 5.10. The commitment that will be cancelled is the commitment required to address the reliability concern.</p>
Market Manual 7.1			
82	Market Manual 7.1, Section 2.2.1	<p>OPG proposes to revise the last sentence of the last paragraph of this section from: "...actions and any mitigating steps to prevent reoccurrence." to "...and, where applicable, any mitigating steps to prevent re-occurrence."</p>	The IESO has made the suggested change.
83	Market Manual 7.1, Section 2.3.1	<p>The definition/conditions of the Normal Operating State have been removed, leaving only a reference to Market Rules Chapter 5 Section 2.2. The other Operating States (i.e. High Risk, Conservative, Emergency) have descriptions of what they are, conditions leading to declaration of such conditions, etc. An explanation of Normal Operating state would help to set the reader up to better understand the High Risk, Conservative, Emergency Operating States.</p> <p>OPG suggests that the IESO re-introduce the deleted Section 2.3.3 Normal Operating State.</p>	<p>The conditions outlined in the other operating states provide additional information from what is contained in the market rules. No such additional information is required under the Normal Operating state as Chapter 5, section 2.2 of the market rules sets out the conditions in which the IESO-controlled grid will be considered to be in a normal operating state.</p>

ID	Section	Feedback	IESO Response
84	Market Manual 7.1, Section 2.3.2	<p>1. Please consider the addition of the terms "extreme cold weather" and "extreme hot weather" to the high-risk operating state conditions and their associated potential for impact to grid reliability.</p> <p>2. The IESO states that it can "declare" a high-risk operating state, but under IESO Actions there is no mechanism stated as to how MP are informed of this declaration. Will an Advisory Notice be issued at the start and the end the High Risk Operating State?</p>	<p>As provided in Market Manual 7.1, section 2.3.3, the IESO may declare a conservative operating state in response to extreme temperature conditions.</p> <p>The IESO will notify market participants of any change to operating conditions using an advisory notice.</p>
85	Market Manual 7.1, Section 2.3.3	<p>1. The IESO states that it can "declare" a conservative operating state, but under IESO Actions there is no mechanism stated as to how MP are informed of this declaration. Will an Advisory Notice be issued at start and end of the Conservative Operating State?</p> <p>2. Under IESO Actions, it states that MPs may be required to suspend certain activities. How will this be communicated? Through Advisory Notice? Direct phone communication? The procedure for communication is clearly outlined under Section 2.3.4 for the Emergency Operating State. Perhaps a similar outline should be included in this section also.</p>	<p>The IESO will notify market participants of any change to operating conditions using an advisory notice.</p> <p>During a conservative operating state, the IESO may notify market participants of the need to suspend any non-urgent maintenance or switching activities to minimize any potential risks to the IESO-controlled grid. The IESO may communicate this requirement by telephone or by advisory notice, depending on the circumstances.</p>
86	Market Manual 7.1, Section 2.3.4	<p>1. Under IESO Actions, a declaration for the Emergency Operating State is made via the issuance of an Advisory Notice. The notification process is missing with regards to when the MPs will be informed of a return to the Normal Operating State. Please provide the communication process for the return to the Normal Operating State.</p> <p>2. The third bullet under IESO Actions includes the term facilities location operator. The "location operator" is a new term and it is defined in a footnote on the bottom of the page. Suggest to include this term in Market Rules Chapter 11 Definitions.</p> <p>3. The third bullet under IESO Actions uses the term "operating instructions", but the context in this paragraph does not align with the definition given in the current Market Manual 7.6, Glossary of Standard</p>	<p>1. The IESO will notify market participants of any change to operating conditions using an advisory notice, including a return to normal operating state.</p> <p>2. The term "location operator" does not appear in the market rules. The defined term is required for Market Manual 7.1 only.</p> <p>3. "Operating instruction" has the meaning ascribed to it in the NERC Reliability Standards. The IESO will revise the definition of operating instruction as part of a future update to MM 7.6 which will occur outside of MRP.</p>

ID	Section	Feedback	IESO Response
		Operating Terms (IMP_GOT_0002, Issue 10.0). OPG's understanding is that IESO is moving away from the use of the term "reliability directive" and towards "operating instruction". There should be clear a definition for "operating instruction".	
87	Market Manual 7.1, Section 3.1	This section contains the deleted Section 1.2.4 Voice Communication. There is valuable information provided within this passage, OPG recommends the IESO to restore this section.	Chapter 5, section 12.4.2 sets out the IESO's obligation to record voice communications and maintain such recordings for a period of no less than 7 years.
88	Market Manual 7.1, Section 3.2.1, Communications Facilities	"Expeditiously" is qualitative and not quantitative, and can be open for interpretation under compliance requirements. Please clearly define what is the expectation of the term "expeditiously" for compliance purposes.	"Expeditiously" has its ordinary English meaning. Merriam-Webster defines "expeditiously" as "marked by or acting with prompt efficiency." It is a qualitative standard in light of the circumstances facing both the IESO and the market participant.
89	Market Manual 7.1, Section 3.2, Operating Instructions to Transmitters and Distributors	Recommend updating the section numbering to 3.3.2. "Prompt compliance" is qualitative and not quantitative. Please provide clear requirement regarding "prompt compliance" (i.e. how many minutes) for compliance purposes.	Pursuant to Chapter 5, section 1.2.5 of the market rules, "promptly" or "immediately" means within 5 minutes unless the IESO provides otherwise, subject to delays necessary to protect the safety of any person, prevent damaging equipment, or to avoid violating applicable law.
90	Market Manual 7.1, Section 3.3	Further to the note from Section 2.3.4 regarding the meaning of "operating instruction", this section defines the term in a footnote as "having the meaning ascribed to it in NERC Reliability Standards." This definition contrasts with the definition found in the current Market Manual 7.6. It is recommended that the IESO review the use of the term "operating instructions" throughout the market rules and manuals for consistency in its use.	"Operating instruction" has the meaning ascribed to it in the NERC Reliability Standards. The IESO will revise the definition of operating instruction as part of a future update to MM 7.6 which will occur outside of MRP.
91	Market Manual 7.1, Section 3.3.1	In the paragraph Removal from Service, the term "immediately" is used to describe location operator response to an instruction. Elsewhere in the Market Rules and Manuals the term "promptly" is used, and its meaning is clarified in a footnote as being within 5 minutes. As a result of this	Pursuant to chapter 5, section 1.2.5 of the market rules, "promptly" or "immediately" means within 5 minutes unless the IESO provides otherwise, subject to delays necessary to protect the safety of any person, prevent damaging equipment, or to avoid violating applicable law.



ID	Section	Feedback	IESO Response
		comparison, OPG recommends the IESO to quantify the term "immediately", as the term can be subjective and can result in compliance risk to MPs if not clarified.	
92	Market Manual 7.1, Section 4.0	OPG recommends restoring the removed definition for Normal Operating under Section 4.0 heading for reader clarity.	Chapter 5, section 2.2 of the market rules sets out the conditions associated with the IESO-controlled grid's normal operating state.
93	Market Manual 7.1, Sections 4.2.2.1, 4.2.2.2 and 4.2.2.4	These three sections have "upward" reference to market rules for procedures and processes associated with synchronization and desynchronization. The Market Rules usually provides the guidelines and the Market Manuals provides the specific procedures. The references in these sections are the reverse of the normal governance structure. Was this intentional?	Market Manual 7.1, sections 4.2.2.1, 4.2.2.2, and 4.2.2.4 clarify which synchronization and de-synchronization processes apply to which resources. In particular, these provisions are intended to clarify how a GOG-eligible resource should proceed where it has not received a start-up notice or a notice of de-commitment.
94	Market Manual 7.1, Section 4.2.5	Please provide examples of "any matters outside the scope of commercial operations on the IESO-controlled grid" to help guide MPs in the understanding of this requirement.	This is a catch-all term for any other matter that the market participant reasonably believes may impact the reliable operation of the IESO-controlled grid.
95	Market Manual 7.1, Section 5	There is reference to the High-Risk and Emergency Operating States as abnormal conditions. Should the Conservative Operating State be considered an abnormal condition?	Market Manual 7.1, section 5 sets out communication protocols for abnormal conditions, which include high-risk operating states, emergency operating states, and any unusual behaviour by equipment or loads.
96	Market Manual 7.1, Section 5.1	<p>1. Under IESO Directions, both "reliability directive" and "operating instruction" terms are used. It would be useful to MPs for the IESO to provide a clear delineation of the difference between the two terms, particularly considering the movement away from "reliability directive" towards "operating instructions". Please clearly define what are the requirements under each term, when the terms are to be used and followed and the difference in MP response when each of the term is triggered.</p> <p>2. The paragraph Emergency Operating State Control Actions (EOSCA) mentions the use of pre-recorded broadcast telephone message. Has this</p>	<p>1. Following the NERC Glossary of Terms, an "operating instruction" means "a command by operating personnel responsible for the real-time operation of the interconnected Bulk Electric System to change or preserve the state, status, output, or input of an element of the Bulk Electric System or a facility of the Bulk Electric System." A reliability directive is a request made by the IESO pursuant to a provision of the market rules that authorizes the IESO to "direct" the operation of equipment for reasons of reliability and which obliges market participants to comply with those directions, such as MR Ch.5 s.3.4.1.5. A reliability directive that obliges a market participant to change or preserve the state, status, input, or output of an element or facility of the Bulk Electric System would also constitute an operating instruction.</p>

ID	Section	Feedback	IESO Response
		<p>option been triggered in the IESO Administrative Market? Please provide the distribution list for the broadcast telephone message.</p> <p>3. The paragraph Status updates and Extra-Provincial Contingencies indicates that the IESO will inform MPs via Advisory Notices, while the Restrictions to Auxiliaries paragraph indicates communication to MP, but does not provide the method of communication. Please clarify the method of communication for the second instance within the text.</p>	<p>2. This process is not changing as a result of Market Renewal. If OPG wishes to discuss EOSCA processes in greater detail, the project team can connect OPG with the appropriate IESO staff members.</p> <p>3. The IESO will inform the affected market participants via telephone. Market Manual 7.1 section 5.1 has been updated to reflect this.</p>
97	Market Manual 7.1, Sections 5.2.1 and 5.2.4	<p>In paragraph <i>Matters requiring reporting</i>, "auxiliary equipment" is referred to as a defined terms, and points to the "Defined Term" section on page 99. Under the context of the Market Rules and Market Manuals, "defined terms" are terms that appears in Market Rules Chapter 11. If "auxiliary equipment" is a proper defined term, it should be identified in Chapter 11. Otherwise, the "defined term" terminology should not be used in referring to "auxiliary equipment" in the market manual.</p>	<p>The table on page 79 defines "auxiliary equipment" for the purposes of Market Manual 7.1. The term "auxiliary equipment" only appears twice on the market rules and does not need a chapter 11 definition.</p>
98	Market Manual 7.1, Section 6	<p>NSRC standard CIP-008 requires entities to also report attempts to compromise. Would the MP decide on what constitutes an attempt to compromise? Or would the IESO define the scope of the attempts that needs to be reported? Clear guidance would provide clarity and reporting consistency for both MPs and the IESO.</p>	<p>The IESO will report any attempts to compromise to NERC, NPCC, and the OEB. Market participants should promptly notify the IESO of any attempts to compromise. The market participant would decide on what constitutes an attempt to compromise based on the appropriate CIP standards.</p>
99	Market Manual 7.1, Section 7.3	<p>In paragraph Failure and cost recovery, DA-PCG has been replaced by day-ahead make-whole payment. These two settlement processes are not the same. Please provide the rationale for this replacement.</p>	<p>As part of Market Renewal, the Day-Ahead Production Cost Guarantee (DA-PCG) will be discontinued. In the new market, compensation for unit readiness exercises will be consistent with day-ahead make-whole payment settlement process.</p>
100	Market Manual 7.1, Section 10, Table 1	<p>1. The term SBG should be included in the List of Acronyms.</p> <p>2. The following sentence is not clear in conveying its meaning: "Include incremental export transactions beyond two hours before the dispatch hour. This action will allow additional export transactions to be scheduled." OPG suggesting adding a diagram to explain the intent of the sentence</p>	<p>1. The IESO has added SBG to the list of acronyms.</p> <p>2. Pursuant to MR Ch.7 s.5.2.2, the quantity for energy or operative reserve in a registered market participant's pre-dispatch schedule for a boundary entity resource, for any hour after the first two hours relative to the current dispatch hour, shall not exceed the corresponding quantity for that hour in</p>

ID	Section	Feedback	IESO Response
		<p>and its impact on trades. For example, is there a risk that an export will proceed under economic conditions not intended by the trader?</p> <p>3. There is confusion regarding how curtailing linked wheel-throughs provides relief if both ends of the wheel-through are curtailed, i.e. if the net relief is 0 MW. OPG interprets the condition as the IESO is not allowed to curtail only the import leg of a wheel through, and therefore the entire wheel-through is curtailed. This now creates room on the ties for pure exports.</p> <p>4. OPG believes that the term "TLRe-MAX" should be "ADQh-MAX" in "Note: such curtailments are tagged TLRe-MAX."</p>	<p>the registered market participant's day-ahead schedule for the boundary entity resource. This rule prevents the pre-dispatch calculation engine from scheduling import and export transactions in excess of the market participant's day-ahead schedule - also called incremental import or export transactions - except for the first two hours of the pre-dispatch look-ahead period. However, sections 5.2.2.1 through 5.2.2.4 include exceptions to this rule, permitting the pre-dispatch calculation engine to schedule incremental import or export transactions for the full pre-dispatch look-ahead period. This includes for reasons of reliability pursuant section 5.2.2.1, which is the section relied upon in the list of grid control actions set out in Market Manual 7.1, section 10. This exception permits the pre-dispatch calculation engine to schedule incremental import or export transactions further in advance than it usually would; it does not permit the pre-dispatch calculation engine to schedule transactions that would not otherwise be economic.</p> <p>3. This is correct.</p> <p>4. Intertie curtailment coding is not changing as a result of MRP.</p>
101	Market Manual 7.1, Appendix B, Table B-1	Item 21 and Item 31 are new and state: "Include incremental import transactions beyond two hours before the dispatch hour". As per the concern expressed in Section 10 Table 1, please provide further clarification on this requirement and how it may impact economic/non-economic trades.	This pertains to the scheduling restrictions imposed in MR Ch.7 s.5.2.2, discussed above.
102	Market Manual 7.1, Appendix B, Table B-2	Item 3 refers to Footnote 13, should the reference be Footnote 23?	The IESO has deleted the superscript, which was included inadvertently.
Market Manual 7.2			
103	Market Manual 7.2, General	The term "publish" or "publishes" is a defined term and has not been italicized throughout the document appropriately.	The IESO has made the suggested changes.

ID	Section	Feedback	IESO Response
104	Market Manual 7.2, Sections 3.1 and 3.2	Do the demand forecasts in these reports represent extreme weather, weather normal or actual weather?	<p>The demand forecasts shown in the reports for Days 0 to 10 represent expected actual weather. The demand forecasts shown in reports beyond 10 day represent extreme weather.</p> <p>Please note that the IESO has determined that the content of the proposed Demand Forecasts Report is, and will continue to be, reflected in the Adequacy Report. The Demand Forecast Report is therefore being de-scoped and section 3.2 of Market Manual 7.2 has been deleted.</p>
105	Market Manual 7.2, Section 3.1.2	<p>In accordance with Market Rules Chapter 5 Section 7.3.1.4, it is stated that the report will be published daily, however the Adequacy Report for Day 2 to 34 is published twice daily.</p> <p>The specific timing for when in each day the reports are expected to be published is not provided.</p>	The Adequacy report for Days 2 to 34 will be published at approximately 8:45 EST and 15:00 EST daily. The IESO has updated MM 7.2 to include the expected publishing times of the Adequacy Report for Day 2 to Day 34.
106	Market Manual 7.2, Section 3.4	<p>Specific timing for when in each hour the Day 0 to Day 2 and in each day the Day 3 to Day 34 reports is expected to be published is not provided. Please clarify when in each hour and day the respective reports should be expected to be published.</p>	<p>Transmission Facility Outage Limits Report (Days 0 to 2) will be published by approximately 15 minutes and 45 minutes past the top of the hour.</p> <p>Transmission Facility Outage Limits Report (Days 3 to 34):</p> <ul style="list-style-type: none"> <li>• First report of the day will be published by approximately 8:45 EST; and</li> <li>• Second report of the day will be published by approximately 17:07 EST.</li> </ul> <p>The IESO will update MM 7.2 to include the expected publishing times of the Transmission Facility Outage Limit Reports.</p>
107	Market Manual 7.2, Appendix C	Please clarify how Energy Storage resources are addressed in the Forecast Supply and Forecast Demand in the Adequacy Reports.	<p>There is no change in how energy storage resources are addressed in the adequacy report. Today, storage resources that are registered as a dispatchable generator and a dispatchable load have their generation portion included in "Other" Internal Resources, and their load portion included as part of Dispatchable Loads in the Adequacy Report.</p> <p>Storage resources that are registered as a non-dispatchable generator and a non-dispatchable load will similarly have their generator portion included in</p>

ID	Section	Feedback	IESO Response
			<p>"Other" Internal Resources. Their load portion will continue to be included as part of the Forecast Ontario Demand in the Adequacy Report.</p> <p>Appendix C has been updated to indicate how Energy Storage resources are addressed in the Forecast Supply and Forecast Demand sections of the Adequacy Reports</p>
108	Market Manual 7.2, Appendix D	For the second paragraph, please clarify the interfaces that are referenced from Market Rules Chapter 5 Section 7.4.2. The market rule section does not contain interfaces list.	<p>The reference to MR Ch.5 s.7.4.2 in the second paragraph is not intended to specify that this section of the market rules contains the list, but rather to identify that the statement in the second paragraph is in alignment with that section of the market rules. In this case, the reference to MR Ch.5 s.7.4.2 is referring to the IESO's obligation to conduct the quarterly assessment for the purposes of the Reliability Outlook.</p> <p>All of the interfaces and interconnections that are used in the Reliability Outlook are a subset of those interfaces and interconnections that are listed in Appendix D of Market Manual 7.2.</p>
109	Market Manual 7.2, Appendix D, Table D-1	The internal interfaces listed in Table D-1 are not marked as redlined, and it is assumed that they already exist in the current Transmission Limits reports. However, upon reviewing the current report, it is evident that there are several interfaces that do not align with Table D-1 and the current Transmission Limits reports. Please provide clarification regarding this misalignment.	<p>Thank you for identifying the misalignment. There are internal interfaces that do exist in the All-In-Service Limits report that are not listed in MM7.2 Table D-1. This misalignment exists today and it is not due to an MRP change. The IESO will add the following missing internal interfaces to Table D-1 of MM 7.2:</p> <ol style="list-style-type: none"> <li>1. Queenston Flow West</li> <li>2. Fort Frances Area Inflow (FAI)</li> <li>3. St. Lawrence West [SLW]</li> <li>4. Dryden Area Inflow [DAI]</li> </ol>
110	Market Manual 7.2, Appendix E	The GRH definitions should be formatted similar to other appendices with a definition section.	The IESO has revised Market Manual 7.2, Appendix E in accordance with OPG's suggestion.
111	Market Manual 7.2, General	Definitions for GRH, SBG, and Baseload Generation should be included as defined terms in Market Rules Chapter 11.	The terms generation reserve holdback, surplus baseload generation and baseload are not referenced in the market rules nor are the terms being introduced by Market Renewal.

ID	Section	Feedback	IESO Response
			<p>Section 5 of Market Manual 7.2 defines both surplus baseload generation and baseload. While generation reserve holdback is defined in Appendix C of Market Manual 7.2.</p> <p>The IESO believes the definitions that exist in the current Market Manual 7.2, which will be maintained as part of Market Renewal, is the appropriate document to define the terms.</p>
112	Market Manual 7.2, General	Please clarify and confirm how the timelines outlined in Market Manual 7.2 will be incorporated into the technical specification report, which is targeted for release in Q1-2024. Please ensure the alignment of the Market Manual 7.2 timelines with the report's content and delivery.	The timelines will be incorporated in the Technical Reference Materials and sample files which are targeted for release in Q2-2024.
113	Market Manual 7.2, References	Hyperlink provided to NPCC Directory 5: Reserve document is not functioning correctly.	The IESO has updated the hyperlink.
<b>Market Manual 7.3</b>			
114	Market Manual 7.3, Section 4.3.1	In the definition of "Best Efforts" the term "Reasonable Effort" is introduced. Please quantify or provide the definition of "Reasonable Effort".	"Best efforts" in the context of Market Manual 7.3 section 4.3.1 are "reasonable efforts" and the section outlines the IESO's expectations with respect to the actions a market participant should take.
115	Market Manual 7.3, Section 4.5	The hyperlink to IESO portal is not functioning correctly.	The IESO has updated the hyperlink.
116	Market Manual 7.3, Section 3.2.1, Table 4-3	Recommend the table to be revised to clarify insignificant changes rather than referring to Section 3.2.1.3, which only defines significant changes.	Insignificant changes are any changes other than the significant changes outlined in Market Manual 7.3, section 3.2.1.2.
117	Market Manual 7.3, Section 5.1.4	Please provide a list of Critical Transmission Elements.	A list of critical elements cannot be made public to maintain confidentiality. The existing process whereby the equipment owner agrees to provide a market participant with third party viewership of their equipment continues to be in place in the future market, which in turns provides visibility of whether that equipment is considered critical or not.

ID	Section	Feedback	IESO Response
118	Market Manual 7.3, Section 5.1.4	Please clarify if the deadline in Section 5.1.4.1 is referring to critical transmission equipment only while Market Manual 4.2 Section 2.2 is the deadline for critical generation equipment.	Both referenced sections refer to requests for Segregated Mode of Operation which require outages to critical transmission equipment.
119	Market Manual 7.3, Section 5.1.4.1	<p>The IESO uses the term "outage" within the first and second paragraph of this section, while the section header uses the term "operation". These two terms can have significantly different meanings.</p> <p>Please clarify which is the true intent of this section: an operation or an outage.</p>	<p>The intent of this section is to use the term "outage" which is aligned with MR Ch.7 App.7.7 s.1.3.</p> <p>MM 7.3 Section 5.1.4.1 header has been updated to use the term "outage".</p>
120	Market Manual 7.3, Section 5.3.2	Please provide additional information on the process for appointing a test coordinator.	The market participant may specify the test coordinator in the outage submission. This process has not changed as part of Market Renewal.
121	Market Manual 7.3, References	Recommend updating this section with appropriate hyperlinks to all documents.	The IESO has updated the hyperlink.
122	Market Manual 7.4, Section 2	<p>This comment is regarding the listing order of the four IESO operating states: Normal, Conservative, High-Risk and Emergency.</p> <ul style="list-style-type: none"> <li>• In the previous version of Market Manual 7.4, the listing order was written as: High-Risk, Conservative, Normal and Emergency.</li> <li>• In the current draft of Market Manual 7.4, the listing order is written as: Normal, High Risk, Conservative and Emergency.</li> <li>• The order in the draft version of Market Manual 7.1 is listed as: Normal, Conservative, High Risk and Emergency.</li> </ul> <p>It appears that the operating states are listed in order of escalating degradation of the system. OPG recommends that the listing order be consistent across all market rules and manuals, and proposes the following order: Normal, Conservative, High-Risk and Emergency.</p>	The IESO amended the market rules and market manuals in 2022 as part of MR-00470-R00: Improving Awareness of System Operating Conditions to introduce the conservative operating state. Market Renewal is not introducing any amendments to this framework. Accordingly, the IESO prefers not to make any further changes.

ID	Section	Feedback	IESO Response
		It is noted that this draft of Market Manual 7.4 contains a definition of the Normal Operating State. This definition has been removed from Market Manual 7.1 (see Market Manual 7.1 Section 2.3.1 comment). Please revise for alignment between the market manuals. The recommendation is to include the definition of Normal Operating State in the market manuals for reader clarity.	

### Workbench Feedback and IESO Responses

ID	Section	Feedback	IESO Response
123	Energy market participation for a PRL with a physical HDR capacity obligation	Is the HDR curtailment offer included in the DAM, PD and RT LMP price determinations?	HDR bids are considered in our price setting eligibility rules for the DAM and PD. While HDR bids aren't considered in LMP determination for RT, the associated curtailment or consumption (if not activated) will have an impact on LMPs.
124	Energy market participation for a PRL with a physical HDR capacity obligation	Is there a non-PRL energy price published out of the DAM, or is the first non-LMP price not published until the first PD run after 20:00 EPT?	A resource registered as a PRL will receive an energy LMP from the DAM, PD, and RT. The resource will be settled based on their DAM and RT LMPs, and their settlement will not be impacted by the Ontario Zonal Price by which NDLS are settled.
125	Energy market participation for a PRL with a physical HDR capacity obligation	Can the IESO provide sample reports for the DAM schedules for a PRL resource with HDR, specifically with all hours of the day so we can see the difference between obligation hours (13-21) and non-obligation hours (1-12, 22-24)?	This sample report titled CNF-TestMPHDRPRL_DAScheduledEnergy2 can be found in the Day-Ahead Schedule (.zip) folder on the Technical Reference Materials webpage under "IESO Reports Impacted by MRP".
126	Energy market participation for a	Can the IESO provide a set of settlement examples for this resource type parallel to the example in the presentation, but expanded to see schedules and	Please see the example below:



ID	Section	Feedback	IESO Response
	PRL with a physical HDR capacity obligation	<p>settlements? Example is a PRL of 80 MW with a 30 MW physical HDR obligation in the following scenarios:</p> <p>a. DAM schedule 50 MW PRL, 30 MW HDR not activated, RT load 80 MW all day,</p>	<p>Assuming a DAM LMP of \$35 and RT LMP of \$30:</p> $(-1 * ( Q\_DA*LMP\_DA + Q\_DA-HDR* LMP\_DA )) + (-1 *( Q\_RT*LMP\_RT - Q\_DA*LMP\_RT - Q\_DA-HDR * LMP\_RT))$ $= (-1 * (50 * \$35 + 30 * \$35)) + (-1 * (80 * \$30 - 50 * \$30 - 30 * \$30))$ $= (-1 * (\$2800)) + (-1 * (\$0))$ $= -\$2800 - \$0$ <p>Net Energy Settlement = -\$2800</p>
127	Energy market participation for a PRL with a physical HDR capacity obligation	<p>Can the IESO provide a set of settlement examples for this resource type parallel to the example in the presentation, but expanded to see schedules and settlements? Example is a PRL of 80 MW with a 30 MW physical HDR obligation in the following scenarios:</p> <p>b. DAM schedule 50 MW PRL, 30 MW HDR activated for 4 hours, RT load 50 MW for 4 hours of obligation window (17-20), 80 MW for remaining hours of obligation window (13-16, 21).</p>	<p>Please see the example below:</p> <p>Hours outside of obligation window (13-16, 21), assuming a DAM LMP of \$90 and RT LMP of \$95:</p> $(-1 * ( Q\_DA*LMP\_DA + Q\_DA-HDR* LMP\_DA )) + (-1 *( Q\_RT*LMP\_RT - Q\_DA*LMP\_RT - Q\_DA-HDR * LMP\_RT))$ $= (-1 * (80 * \$90 + 0 * \$90)) + (-1 * (80 * \$95 - 80 * \$95 - 0 * \$95))$ $= (-1 * (\$7200)) + (-1 * (\$0))$ $= -\$7200 - \$0$ <p>Net Energy Settlement = -\$7200</p> <p>Two examples are given below. (i) assumes no HDR curtailment in the DAM schedule and (ii) assumes full HDR curtailment in the DAM schedule.</p>

ID	Section	Feedback	IESO Response
			<p>i) Any hour of obligation window (17-20), assuming a DAM HDR schedule of 30 MW (no DAM curtailment), DAM LMP of \$95 and RT LMP of \$105:</p> $(-1 * ( Q\_DA*LMP\_DA + Q\_DA-HDR* LMP\_DA )) + (-1 *( Q\_RT*LMP\_RT - Q\_DA*LMP\_RT - Q\_DA-HDR * LMP\_RT))$ $= (-1 * (50 * \$95 + 30 * \$95)) + (-1 * (50 * \$105 - 50 * \$105 - 30 * \$105))$ $= (-1 * (\$7600)) + (-1 * (-\$3150))$ $= -\$7600 + \$3150$ <p>Net Energy Settlement = -\$4450</p> <p>ii) Any hour of obligation window (17-20), assuming a DAM HDR schedule of 0 MW (full curtailment), DAM LMP of \$105 and RT LMP of \$110:</p> $(-1 * ( Q\_DA*LMP\_DA + Q\_DA-HDR* LMP\_DA )) + (-1 *( Q\_RT*LMP\_RT - Q\_DA*LMP\_RT - Q\_DA-HDR * LMP\_RT))$ $= (-1 * (50 * \$105 + 0 * \$105)) + (-1 * (50 * \$110 - 50 * \$110 - 0 * \$110))$ $= (-1 * (\$5250)) + (-1 * (\$0))$ $= -\$5250 - \$0$ <p>Net Energy Settlement = -\$5250</p>
128	Energy market participation for a PRL with a physical HDR capacity obligation	Can the IESO provide parallel reports and settlements examples for HDR that are not PRLs?	<p>This sample report titled CNF-TestMPHDR_DAScheduledEnergy2 can be found in the Day-Ahead Schedule (.zip) folder on the Technical Reference Materials webpage under "IESO Reports Impacted by MRP".</p> <p>Settlement of HDR without a PRL will follow the same process as the current market and will not be impacted as a result of MRP. HDR resources that are not PRLs will be settled based on their capacity obligation that they receive through the Capacity Auction. Applicable</p>

ID	Section	Feedback	IESO Response
			charge types will be 1315 to 1320 and the formulas can be viewed in the IESO's charge types and equations document below: <a href="https://ieso.ca/-/media/Files/IESO/Document-Library/engage/imrm/ieso-charge-types-and-equations-20240129.pdf">https://ieso.ca/-/media/Files/IESO/Document-Library/engage/imrm/ieso-charge-types-and-equations-20240129.pdf</a>