

Memorandum

To: Attendees of the Market and Systems Operations (MSO) Q&A Sessions

From: Market Renewal Program (MRP) Implementation Team

Date: October 27, 2023

Re: Responses to Stakeholder Feedback during the MSO Q&A Sessions

This document provides the IESO's responses on the questions received from the following MRP engagement webinars:

- September 26, 2023 Engagement Webinar on the Market and Systems Operations batch for energy storage resources, renewable generators, nuclear generators, and non-dispatch generators
- September 26, 2023 Engagement Webinar on the Market and Systems Operations batch for hourly demand response resources, dispatchable loads, and price responsive loads
- September 28, 2023 Engagement Webinar on the Market and Systems Operations batch for virtual traders
- September 28, 2023 Engagement Webinar on the Market and Systems Operations batch for intertie traders
- September 29, 2023 Engagement Webinar on the Market and Systems Operations batch for dispatchable hydroelectric generators
- October 3, 2023 Engagement Webinar on the Market and Systems Operations batch for GOG-eligible non-quick start generators

If you have any further questions or concerns, please contact IESO Engagement at engagement@ieso.ca.

No.	Topic	MSO Q&A Session	Market Participant	Question/Feedback	Response
1	Day-Ahead Market (dispatch data revision restrictions)	October 3, 2023	OPG	<p>Re: Slide 35</p> <p>With respect to the statement, “post 20:00 EPT timeframe with or without DAM schedule, dispatch data must not be increased limitation,” is that an increase from a resubmitted offer after DAM but before 20:00 or is that an increased offer from <i>your</i> day-ahead offers?</p>	<p>Whether the post 20:00 EST limitation applies to increases from offers into the DAM vs. increases to offer resubmissions between DAM completion and the 20:00 EST Pre-Dispatch (PD) run depends on whether the resource received a DAM commitment and schedule as follows:</p> <p>For hours where the resource received a DAM schedule, the following offers submitted into the DAM may not be increased:</p> <ul style="list-style-type: none"> • energy offer prices up to MLP; and • speed-no-load offers <p>For hours where the resource does not have a DAM schedule, the offers noted above can be resubmitted after DAM but no further increases are permitted after the 20:00 EST pre-dispatch run.</p> <p>For hours where the resource received a DAM commitment, start-up offers into the DAM may not be increased.</p> <p>For hours where the resource does not have a DAM commitment, re-submitted start-up offers are permitted after DAM but may not be increased after the 20:00 EST pre-dispatch run.</p>
2	Day-Ahead Market (dispatch data revision restrictions)	October 3, 2023	Atura Power	<p>Re: Slide 35</p> <ol style="list-style-type: none"> 1. What happens if we violate these restrictions? 2. After 20:00 PD schedule, if our costs increase, what 	<ol style="list-style-type: none"> 1. If restrictions are violated, data will be rejected, and resubmission is required. 2. There is no mechanism to lift these offer restrictions if costs increase after the 20:00 EST PD run.

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		Start Generators		are our options to have the restrictions removed?	<p>While the above answers to both questions are accurate in the context of the restrictions presented in slide 35, for completeness please note the following answers to the same questions relative to the restrictions presented in slide 72:</p> <ol style="list-style-type: none"> 1. If restrictions are violated, data will be rejected, and resubmission is required. 2. The restriction on energy offer prices are for quantities above MLP. There is a mechanism to lift offer price restrictions for quantities above the quantity scheduled by the binding pre-dispatch advisory schedule, for hours that do not have a DAM schedule. Please refer to Market Manual 14.2 Section 5 for information on temporary reference level change requests and Market Manual 4.1 Section F.8 on the reason codes required to be submitted to lift these offer price restrictions.
3	Day-Ahead Market	September 26, 2023	Atura Power	Requested for more information on how storage resources that serve as a load and as a generation resource participate in the DAM, and how they would submit data as both types of resources in the renewed market.	For dispatchable storage resources, the two-resource generation/load model and dispatch data submitted for each generation and load resource mapped to a storage facility remains the same as today. A storage participant may continue to submit hourly dispatch data for both the generation resource and the load resource for each hour of the DAM, PD and RT processes. The dispatch data requirements for the current market are documented in Market Manual 4.2 (Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Market) and they will continue to apply in the future market. These same

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					<p>requirements for the future market will be documented in Market Manual 4.1 (Submitting Dispatch Data in the Physical Markets) which are available for review as part of the MSO batch of rules and manuals.</p> <p>For non-dispatchable (self-scheduling) storage resources, the only change is that the market participant will have to register the load resource as a price responsive load (PRL) and submit hourly bids into the DAM to reflect the expected load consumption for the hours it expects to consume energy. The process for submitting self-schedules for a generation resource for the hours it is expected to produce energy remains the same as today.</p>
4	Day-Ahead Market	September 28, 2023	OPG	<p>Re: Slide 18</p> <p>Confirmation requested that the DAM execution deadlines will be based on EPT, and not EST.</p>	<p>Yes, the slide correctly shows DAM execution will be based on EPT.</p>
		Virtual Traders			
5	Pre-Dispatch	September 26, 2023	Evolugen	<p>Clarification requested on when the PD engine will begin its initial run for the next dispatch day.</p>	<p>The first PD engine run for the next dispatch day is at 20:00 EST, which includes schedules for the last three hours of the current day and all 24 hours of the next dispatch day.</p>
		Storage, Renewables, Nuclear and Non-Dispatchable Generators			

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6	Pre-Dispatch	October 3, 2023	Atura Power	<p>Re: Slide 30</p> <p>The slide indicated PD schedule can be issued prior to 20:00. Please advise how MPs would know when the PD schedule is issued earlier. I just want to know so that means the start-up schedule will tell us whether we have to schedule early correct – instead of PD?</p>	<p>The illustration presented in slide 30 does not indicate that a PD schedule can be issued prior to 20:00 EST.</p> <p>The illustration shows a scenario where the DAM creates a schedule for a resource in the early hours of the dispatch day but has a lead time that requires a start-up notification before the first run of the PD engine at 20:00 EST can even see it. Because of this, the PD engine cannot issue a start-up notice for the DAM schedule so the IESO will manually issue a start-up notice to the participant prior to 18:00 EST to indicate by when a resource should synchronize to satisfy its DAM schedule.</p>
7	Pre-Dispatch	October 3, 2023	OPG	<p>Re: Slide 40</p> <ol style="list-style-type: none"> Does the PD engine consider lead time when considering advancing a DAM commitment? Would it schedule a start earlier than the lead time? 	<ol style="list-style-type: none"> Yes, the PD engine considers lead time when evaluating whether to advance a DAM commitment. No, it will always respect lead time when scheduling commitments and issuing associated start-up notices for those commitments.
8	Pre-Dispatch	September 28, 2023	OPG	<p>Re: Slide 29</p> <p>Can you expand on the “manage SBG reference”? What is incrementally changing in the current market?</p>	<p>The ‘manage SBG reference’ refers to the ability for the IESO to manage SBG by including incremental intertie transactions, over what was scheduled in the DAM, beyond the first two hours of a given PD look-ahead period. One of several triggers for whether this action is required to manage SBG includes (but is not limited) to the anticipated need for maneuvering nuclear generation.</p>

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9	Pre-Dispatch	September 28, 2023	OPG	Re: Slide 30/31 If the quantity submitted for intertie transactions decreases from what was originally scheduled in DAM, it will be evaluated, but if it increases, then it will not be evaluated?	Yes, that is correct for changes beyond the first 2 hours of the PD look-ahead period. For example, if an intertie trader offered 100 MW in DAM and was scheduled to 100 MW but then decreased the offered quantity to 80 MW beyond the first 2 hours of the PD look-ahead period, they could still be scheduled for 80 MW. However, if the intertie trader decided to increase their offer to 120 MW, they could only be scheduled up to 100 MW and not with the additional 20 MW being offered.
10	Pre-Dispatch	September 29, 2023	OPG	Re: Slide 50 With respect to the MinDEL constraint example from PD to RT, what is the logic for which hour is chosen to schedule the 100 MW?	In this example, the PD engine logic used to choose 100 MWh for hour ending 21 is based on the PD engine determining this hour as the lowest cost opportunity to satisfy the remaining 100 MWh of the 1100 MWh MinDEL submitted by the market participant. This decision reflects the likelihood that it would be less efficient to satisfy the MinDEL in subsequent PD hours. To avoid a situation of violating the resource's MinDEL before the end of the day, the 100 MWhs will be passed to the real-time market engine as a minimum constraint for hour ending 21.
11	Thermal States	October 3, 2023	OPG	Re: Slide 43 What happens if your down time warm and cold is greater than 24 hours? Does it look back to the last time the unit was online?	Yes, the logic determines how many hours the resource has been below MLP, effectively looking back to the last time the resource was at or above MLP, even if that time was not in the current dispatch day.

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					Note for clarification: The question asks about looking back at the last time the unit was “online” (taken to mean the last time the resource was synchronized to the grid). The logic is based on the last time the unit was at or above MLP, not the last time the unit was online.
12	Thermal States	October 3, 2023 GOG-Eligible Non-Quick Start Generators	Atura Power	Re: Slide 43 For the down time hot, warm, cold values – are they registered values?	No, MGBDT (hot, warm and cold) are not registered values. They are submitted as daily dispatch data. However, there are registered reference level values for MGBDT (hot, warm and cold). The submitted dispatch data values must pass validation against these registered reference level values. These validation rules are documented in the draft Market Rules Chapter 7 Sections 22.13.1.2 through 22.13.1.4.
13	Thermal States	October 3, 2023 GOG-Eligible Non-Quick Start Generators	Northland Power	Re: Slide 43 Are the minimum generation block down time numbers going to be declared in the energy market interface tool?	Yes, the values for the three MGBDT daily dispatch data parameters (hot, warm and cold) will be submitted through the Energy Market Interface (EMI) tool.
14	Thermal States	October 3, 2023 GOG-Eligible Non-Quick Start Generators	RC Energy Markets Consulting Inc	Re: MP actions for feasible ramp after outage (slide 53). Looking to verify the IESO’s concern around decreasing the minimum generation block downtime on a warm resource.	<ol style="list-style-type: none"> 1. It is assumed the MGBDT in question is for the 3rd PSU. While MGBDT (warm) can be reduced, in this scenario, such a reduction would actually tell the PD engine that the PSU is in a colder state, not a hotter state. To have the PSU appear hotter, the MGBDT (warm) could be increased (as clarified in the response to question no. 15), subject to MPM validations. 2. While a decrease to lead-time (warm) cannot influence the thermal state calculated by the PD engine, it would still allow the engine to consider

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				<p>The scenario provided involves the following:</p> <ul style="list-style-type: none"> • 3 PSUs were all at a warm state at the beginning of the day, • 2 PSUs come online during the day, and • 3rd PSU (although technically in a hot state) is still recognized as operating in a warm state by our engines. <ol style="list-style-type: none"> 1. Can MPs reduce the MGBDT to 2 hours or what would be a hot start? 2. Since the IESO is determining the thermal state of the resource based on the MGBDT, if the 3rd PSU in the example above is still recognized as operating in a warm state (even though its ST is already online and technically in a hot state), can the MP change their lead time to update the thermal state from warm to hot? 	<p>scheduling the PSU sooner. The market participant may also need to consider changing the resource's start-up offer (warm) and ramp hours to MLP (warm) to reflect hotter values, again subject to MPM validations.</p>

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15	Thermal States	October 3, 2023	OPG	Re: Slide 43 To confirm, if I increase MGBDT warm that indicates the unit is hot for longer.	Yes, if the MGBDT (warm) ramp hours are increased, then the resource's hot thermal state parameters will be used for more hours.
		GOG-Eligible Non-Quick Start Generators			
16	Thermal States	October 3, 2023	OPG	Re: Slide 52 and 53 Essentially, what the engine is doing here is trying to look for the warm hours and we're just trying to adjust our hot and cold values to what the warm hours are?	Yes, that is the intent.
		GOG-Eligible Non-Quick Start Generators			
17	MP actions for feasible ramp after outage	October 3, 2023	OPG	Re: MP actions for feasible ramp after outage (slide 53). Where can I find this in the market manual?	Please refer to draft Market Manual 4.3 section 2.5.1.6.
		GOG-Eligible Non-Quick Start Generators			
18	MP actions for feasible ramp after outage	October 3, 2023	Capital Power	Re: Slide 53 Is this MP action done in real-time and using what medium or mechanism? Trying to figure out the timing of when we would make that submission and it sounds like we do it at the same time as we receive that dispatch.	No, the MP action will not be performed at the time of dispatch. The MP action, whether it is adjusting warm ramp hours to MLP or submitting a derate to MLP may be submitted in advance as soon as the MP is aware that they will not be able to ramp up to MLP in the submitted warm ramp hours, but definitely before the resource's lead time is reached.
		GOG-Eligible Non-Quick Start Generators			

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					For example, if the resource has a lead time of 5 hours then the derate or change to warm ramp hours should be entered at least 6 hours in advance of the end of the outage or grid-incapability.
19	MP actions for feasible ramp after outage	October 3, 2023 GOG-Eligible Non-Quick Start Generators	OPG	Re: Slide 53 Would a derate/outage be submitted on an hourly basis each time PD runs?	A revised hourly derate profile would only be recommended for future PD runs if the market participant believes the initial hourly derate submission is no longer valid from the derate profile submitted in a prior PD run. For example, if a given PD schedule showed a schedule to MLP occurring 3 hours after the outage and the resource requires 5 hours, then it would be necessary to submit a derate for the 2 extra hours. Unless conditions changed, there would be no need to update that 2 hour derate profile for additional PD runs.
20	MP actions for feasible ramp after outage	October 3, 2023 GOG-Eligible Non-Quick Start Generators	Atura Power	Re. MP actions for feasible ramp after outage (slide 53). Noted that there are concerns with submitting derates due to potential issues or interactions with obligations in their generation contracts.	Stakeholders are encouraged to bring up any specific contractual concerns as part of their ongoing discussions with the IESO's Contract Management group.
21	Dispatch Data Validation	September 26, 2023 HDRs, Dispatchable Loads, and PRLs	Workbench Energy	Please confirm that cross validation is only applied for PRLs with physical HDRs, and not applied for bids submitted by dispatchable loads.	Yes, this is correct.

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22	Dispatch Data Validation	September 28, 2023	Evolugen	Re: Slides 12-16 What are the market design arguments supporting the financial, volumetric, and locational limits around virtual transactions?	The limits introduced for virtual transactions are consistent with implementations and lessons learned in other North-American energy markets. Financial limits protect the overall market from the risk of a market participant defaulting on their payments, whereas the volumetric and locational limits are intended to preserve DAM engine performance, if necessary.
23	Dispatch Data Validation	September 28, 2023	Evolugen	Re: Slides 12-16 Will the information regarding thresholds/limits applied to virtual transactions be available to market participants in real-time or after-the-fact?	The limits will be published well in advance of the pre-DAM submission window and will be publicly available to market participants.
24	Dispatch Data Validation	October 3, 2023	OPG	Is there any thought to increasing the thresholds used to validate MGBDT?	No, the thresholds have already been reviewed with stakeholders and provisionally approved as part of the Market Power Mitigation (MPM) batch of Market Rules and Market Manuals.
25	Dispatch Data Validation	October 3, 2023	Atura Power	Re: Slide 53 Will the reference level validations prevent a market participant from reducing MGBDT daily dispatch values, and in so doing prevent a resource from being scheduled earlier?	There is flexibility to reduce MGBDT values, which provides market participants with the ability to signal that their resource can be scheduled earlier. There are however limits to how much a market participant can reduce their MGBDT value for the warm and cold thermal states. The relevant MPM validations for MGBDT are documented in the draft Market Rules Chapter 7 Sections 3.5.31, 3.5.32.3, 22.13.1.

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26	Dispatch Data Validation	October 3, 2023 GOG-Eligible Non-Quick Start Generators	TransAlta Corporation	Re: MP actions for feasible ramp after outage (slides 51 to 53). 1. From what I understand, you're saying that you can adjust things down from your registered values so it shouldn't trigger rejection, correct? 2. MLP is not part of the registered value, is that correct?	1. There is flexibility to decrease all dispatch data parameters but there are limits to how much they can be decreased. Changes that make a resource less flexible are the changes that may be rejected by validations. For reference, all of the MPM validations for the future market are documented in the draft Market Rules Chapter 7 Section 22.13. 2. MLP is submitted as dispatch data but also has two types of registered values: a. registered value that is only used to establish GOG-eligibility which in turn allows for the submission of MLP as dispatch data; and b. reference level value that is used to validate the submission of MLP as dispatch data
27	Pre-Dispatch Reports	September 29, 2023 Hydroelectric Generators	OPG	Re: Slide 46 Is DEL tracking only for hydro resources or for all resources?	The DEL tracking report will be issued to market participants who submit minimum and/or maximum daily energy limits for eligible resources. All dispatchable generation resources, except nuclear, are eligible to submit MaxDEL. Only dispatchable hydroelectric resources are eligible to submit MinDEL.
28	Offer Restriction Rules	October 3, 2023 GOG-Eligible Non-Quick Start Generators	OPG	Re: Slide 72 Are there offer restriction rules after receiving a PD binding schedule?	Yes. These restrictions were covered on slide 72 of the October 3rd presentation for GOG-Eligible Non-Quick Start Resources. For reference, the restrictions are documented in the MSO batch under Market Rules Chapter 7 Sections 3.3.3.8 to 3.3.3.13.

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29	Acknowledgment of Notices	October 3, 2023 GOG-Eligible Non-Quick Start Generators	OPG	Regarding the acknowledgement of notices, is that a verbal acknowledgement to the control room or is it handled through EMI?	It is not verbal. It will be done electronically by the market participant through the dispatch services tool.
30	Post-PD (Dispatch Data Revisions)	October 3, 2023 GOG-Eligible Non-Quick Start Generators	OPG	Re: Slides 35 and 72 Will offers be rejected if they are outside the restrictions?	Yes, offers that violate the restrictions will be automatically rejected. Please see response to question number 2 for additional context.
31	Standing Offers	October 3, 2023 GOG-Eligible Non-Quick Start Generators	OPG	Are standing offers evaluated as normal daily offers by DAM in absence of any new DAM offers for that resource?	Yes, that is correct.
32	Market Power Mitigation	September 26, 2023 Storage, Renewables, Nuclear and Non-Dispatchable Generators	Evolugen	When and where does MPM ex-ante mitigation occur?	Ex-ante mitigation is a feature built into the calculation engines, and occurs during DAM execution (10:00 EPT to 13:30 EPT) and PD execution (hourly starting at 20:00 on the day prior to dispatch day).
33	Market Power Mitigation	September 26, 2023	OPG	Do the results of Pass 2: Reliability Scheduling and	No. Ex-ante mitigation only occurs in Pass 1. If an offer is mitigated, reference levels are used in the two remaining passes.

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		Storage, Renewables, Nuclear and Non-Dispatchable Generators		Commitment go through ex-ante MPM again?	
34	Market Power Mitigation	September 26, 2023	OPG	Please provide details on how the "enhanced MPM" works.	<p>The IESO interprets the term "enhanced" used in this question to reference the addition of ex-ante mitigation to the MPM framework being used in the current market.</p> <p>An overview of the ex-ante mitigation process was presented upon release of the Calculation Engine batch in early 2022. The recorded presentation can be found on the Energy Implementation engagement page, posted February 22, 2022. If there are additional questions related to how the MPM framework will be integrated in the Market and System Operation batch, we would encourage specific questions to be submitted separately.</p>
		Storage, Renewables, Nuclear and Non-Dispatchable Generators			
35	Market Power Mitigation	September 26, 2023	Evolugen	Clarification required – if offers are updated after DAM execution, are mitigated values still carried over from the DAM execution to be used in the hourly PD execution all the way to real-time?	No, mitigated values from DAM are not carried over into PD and real-time. DAM ex-ante mitigation and PD ex-ante mitigation are independent processes. Only PD ex-ante mitigation decisions are carried through subsequent PD runs and into real-time.
		Storage, Renewables, Nuclear and Non-Dispatchable Generators			
36	Market Power Mitigation	September 26, 2023	Workbench Energy	If there is ex-ante mitigation from a round of pre-dispatch that's carrying forward to the next hour's pre-dispatch but	No, once an ex-ante mitigation decision is made by a given run of PD, there is no re-evaluation of the decision to apply mitigation. If mitigation is applied, reference level values are used in subsequent PD

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		Storage, Renewables, Nuclear and Non-Dispatchable Generators		the underlying condition that led to that mitigation decision has changed (either through a change in dispatch data or system conditions), will the mitigation decision change?	<p>runs and in real-time regardless of system conditions changing.</p> <p>However, if fuel costs change, MPs will have the ability to change the resource's reference level value and the updated value will be used in the subsequent runs of the PD engine.</p> <p>In addition, any time market participants submit offer prices below reference level values, the reference level used by the engine will be reduced to match the lower, submitted offer prices.</p>
37	Market Power Mitigation	September 26, 2023 HDRs, Dispatchable Loads, and PRLs	Workbench Energy	Confirm if MPM on the operating reserve for dispatchable loads is only applied to OR offers, not on activation.	Yes, that is correct, it is only applied to OR offers.
38	Market Power Mitigation	October 3, 2023 GOG-Eligible Non-Quick Start Generators	Calpine Corporation	Is the mitigation done by internal or external people? If the latter, please provide the company name.	Ex-ante mitigation is performed automatically by the calculation engines and not manually by any other organization.
39	Market Power Mitigation	October 3, 2023 GOG-Eligible Non-Quick Start Generators	OATI	When an energy offer curve is mitigated, are all segments set to the reference level or only the segments that had violated the conduct test?	In most cases, mitigation will replace the entire energy offer curve with the energy offer reference level value curve. The exception is if the conduct test only failed for the portion of the energy offer curve up to the MLP, then only the portion of the energy offer curve up to MLP is replaced with the corresponding reference level curve.

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40	Market Power Mitigation	September 28, 2023	Evolugen	Re: Slide 14/15 Would ex-post mitigation continue in real-time?	No. While ex-post mitigation assesses behaviour from the both the day-ahead market and real-time market, the process itself occurs after-the-fact, i.e., after the dispatch day.
41	Market Power Mitigation	September 29, 2023	Evolugen	Re: Slide 48 The market participant commented that they are struggling to see how the new hydroelectric parameters will prevent overrun of their generation, other than submitting an outage or declaring a S.E.A.L. event. With these changes, is the intention to limit a hydroelectric resource's ability to signal to the IESO if they are experiencing low flexibility or limited fuel resource through the adjustment of their offers? With the introduction of ex-ante mitigation, a concern was raised that their original offers would be further mitigated and if scheduled, their inability to meet this dispatch instruction would force them to either put the unit offline or declare a S.E.A.L. event.	The IESO understands that there could be challenges in using current practices to signal resource limitations however these are still available alongside new ways to signal resource limitations in the future market. Please submit any specific scenarios of concern for review and the IESO can help clarify available options.

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42	Reference Levels	September 26, 2023 Storage, Renewables, Nuclear and Non-Dispatchable Generators	OPG	If there is a change to a resource's reference level value prior to the DAM execution, will that value be reflected in the Day-Ahead Financial Reference Level Values Report at 9:30 EPT? What happens if the change is submitted at or close to 9:30 EPT?	If the change to the reference level values is submitted and approved prior to the scheduled run of the Day-Ahead Financial Reference Level Values Report, it will be included as part of the report. If the update is made close to the scheduled time of when the report is published, it may not be noted as part of the report but would be captured by ad-hoc reports that are republished in response to any reference level change requests such as fuel cost changes.
43	Reference Levels	September 26, 2023 Storage, Renewables, Nuclear and Non-Dispatchable Generators	OPG	Will market participants be notified of the updated reference level data or is that only confirmed via the Day-Ahead Financial Reference Level Values Report?	It is only confirmed via the noted report which is published at various times throughout the day and also ad-hoc in response to reference level change requests.
44	Reference Levels	September 29, 2023 Hydroelectric Generators	Evolugen	Re: Slide 22 What are the timelines around providing requests for changes to reference level values if the updated day-ahead financial levels reference report is published by 9:30 EPT? Worried about timelines for submitting offers past 9:30 EPT and potential need for alternative cost profiles after 9:30 EPT. Is	Changes to reference level values must be provided by 9:30 EPT due to timelines necessary for the engines to perform the necessary calculations and publish reports. Time is also required for the IESO to evaluate the submissions.

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				there any flexibility to move the timelines?	
45	Reference Levels	October 3, 2023 GOG-Eligible Non-Quick Start Generators	OPG	Will temporary reference level change or fuel cost change submission be covered in future slides? Inquiring about the submission timelines with respect to DAM, PD and real time.	The change/approval process for reference levels is not covered in the MSO batch of market rules and manuals. Please refer to Market Manual 14.2 Section 5, which was issued as part of the MPM batch.
46	Reports	September 26, 2023 Storage, Renewables, Nuclear and Non-Dispatchable Generators	Workbench Energy	Please clarify what is included in LMP components for the DAM reports.	For the Energy LMP, this refers to the Reference Bus Price, Congestion Component Cost and Loss Component Cost. For the OR LMP, this refers to the Reference Bus Price and Congestion Component Cost. Note: to minimize report generation run-time and publish the reports in a timelier manner, the reference bus price will only be provided once on the reports and not be published for each LMP since it is the same value for every LMP.
47	Reports	September 26, 2023 HDRs, Dispatchable Loads, and PRLs	Workbench Energy	Are sample PD schedules/reports for HDRs already available?	No, however the IESO is currently estimating publication of the Pre-Dispatch Schedules report sample file in Q2 of 2024.
48	Reports	September 26, 2023 HDRs, Dispatchable	Workbench Energy	Re: DAM schedule for HDRs 1. Will this only be available if the HDR is on standby or will the new report	1. Schedules are produced regardless of whether the resource is on standby, which is consistent with today's DACP.

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		Loads, and PRLs		provide the schedule regardless of the resource being on standby or not? 2. Will it be consistent with what MPs see in today's DACP schedules?	2. Yes, it will be consistent of what MPs see in today's DACP schedules.
49	Reports	September 28, 2023 Virtual Traders	OPG	Re: Slide 17 Clarification requested on the schedule/publish times of the Adequacy Report.	The Adequacy Report noted on slide 17 refers to the report covering tomorrow's dispatch day, published pre-DAM and after DAM completion. The Adequacy Report covering 2 through 34 days from the dispatch day will still be published twice per day, once in the morning and once in the evening.
50	Reports	September 29, 2023 Hydroelectric Generators	OPG	Re: Slide 22 What is the timeline of pre-DAM reference quantity reports?	It will be published by 6:00 EPT.
51	Intertie LMP Components	September 28, 2023 Intertie Traders	OPG	Re: Slide 20/34/39 (DAM/PD/RTM) Clarification requested on the comment made: "NISL is new for MRP". Is the comment meant to reflect that there is a new pricing impact in terms of NISL-related congestion specifically?	Yes, Net Interchange Schedule Limits (NISL) will now be included in the calculation of intertie prices.
52	Intertie LMP Components	September 28, 2023	Evolugen	Re: Slide 22	1. The external congestion component comes into effect if the transfer limit on a specific intertie path binds, measured as the cost of congestion

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		Intertie Traders		<ol style="list-style-type: none"> 1. How is the external congestion component determined? 2. Is it based off of historical prices of neighbouring zones? 3. Can it be negative or positive? 4. When it binds, does it reduce the spread between those zones? 	<p>between the Ontario side of the intertie and the external jurisdiction's side of the intertie.</p> <ol style="list-style-type: none"> 2. No, it is not based off historical prices. It is based on the economic evaluation of export and import bids submitted at a specific intertie location. 3. The magnitude can be positive or negative depending on the direction the intertie is congested. 4. When it binds, it increases the spread between the LMPs on either side of the intertie.
53	Virtual Trading	September 28, 2023	Evolugen	<p>Re: Slide 22</p> <p>Can you confirm if there will be virtual trading for intertie LMPs?</p>	No, there won't be virtual trading for intertie LMPs.
54	Settlement	September 28, 2023	Evolugen	<p>Re: Slide 39</p> <p>If I have a bid to export out of Ontario in DAM that clears, and in RT that transactions flows through and I still buy in RT, is there any exposure financially in RT?</p>	No, there would be no RT financial exposure when the RT schedule equals the DAM schedule.
55	Settlement	September 29, 2023	Evolugen	<p>Re: Slide 28</p> <p>How are resources on a cascade system settled in real-time if there is a time lag?</p>	The question as presented is too broad for the IESO to be able to provide a helpful response. Please submit any specific scenarios and the IESO will follow up with separately with a response.

No.	Topic	MSO Q&A Session	Market Participant	Question/Feedback	Response
56	Settlement	September 29, 2023	Evolugen	Re: Slide 56 In the RTM, is there a MWP settlement payment that will be applied to hydroelectric generators specifically? Stakeholder is trying to find more information and if there are resources we can refer to.	There are RTM make whole payment rules and calculations specific to dispatchable hydroelectric resources. These can be found in Market Rules Chapter 9 Sections 3.5.4.1 (c) , 3.5.6.1 (a) and (b), and 3.5.6.2 (b) and (c).
57	Hydroelectric Parameters	September 29, 2023	H2O	Re: Slide 14 For a facility that has a minimum flow requirement, which will have a flat 10 MW requirement (i.e., no less or no more than 10 MW). How do we satisfy the dispatch data requirement?	A market participant may submit a 10 MW value for the Hourly Must Run (HMR) dispatch data parameter to achieve no less than a 10 MW schedule for a given hour and submit a derate to 10 MW for the same hour to ensure the resource is scheduled to no more than 10 MW.
58	Hydroelectric Parameters	September 29, 2023	OPG	Re: Slide 14 1. Do you validate against HMR and Min DEL? 2. Can I submit HMR without Min DEL?	1. No, there is no cross validation between HMR and MinDEL values. 2. Yes, a HMR value may be submitted without submitting a MinDEL value.
59	Hydroelectric Parameters	September 29, 2023	H2O	Re: Slide 15 If I have one forebay with 2 resources, do I submit Min DEL and Max DEL for both resources?	No, you would only submit MinDEL and MaxDEL on the forebay. The forebay construct recognizes that both resources are associated to the forebay.
60	Hydroelectric Parameters	September 29, 2023	H2O	Re: Slide 17	Time lag values must be submitted as whole numbers. If your time lag is not a whole number, round up or down in order to allow the hourly

No.	Topic	MSO Q&A Session	Market Participant	Question/Feedback	Response
		Hydroelectric Generators		For the time lag validation, how do we handle values that are not whole numbers?	schedules produced by the day-ahead and pre-dispatch calculation engines to most closely reflect the required time lag.
61	Hydroelectric Parameters	September 29, 2023	OPG	Re: Slides 15 and 17 1. Is Min DEL and Max DEL only applicable to linked resources? 2. For linked resources, can we operate as a linked resource or not? 3. Will the validation be removed if we are not registered to a forebay?	1. No, MinDEL and MaxDEL can be submitted for individual resources, provided that the resources are not registered to a forebay. If a resource is registered to a forebay, MinDEL and MaxDEL are submitted only on the forebay. 2. To link resources and submit time lag and MWh ratio parameters, you must register a cascade group and forebays within the cascade group. This allows you to submit the time lag and MWh ratio dispatch data parameters, between forebays which effectively 'links' those resources for the dispatch day. 3. No, the MinDEL and MaxDEL validations still apply for individual resource submissions.
62	Hydroelectric Parameters	September 29, 2023	OPG	Re: Slide 28 Does linked forebay apply to real-time calculation engine?	No, linked forebay submissions cannot be evaluated by the real-time market calculation engine.
63	Hydroelectric Parameters	September 29, 2023	Evolugen	Re: Slide 38 How do we enter start indication values?	Start indication values are registration parameters. A single value, in MW, for each generation unit associated with a dispatchable hydroelectric generation resource may be registered. Registered values must be greater than 0 MW, and less than or equal to the maximum generator resource active power capability value registered for the generation unit.

No.	Topic	MSO Q&A Session	Market Participant	Question/Feedback	Response
64	Hydroelectric Parameters	September 29, 2023	OPG	<p>Re: Slide 48</p> <p>Please cover when a market participant may submit linked forebays? This may help: Market Rule Chapter 7 s3.5.23 A registered market participant for a dispatchable hydroelectric generation resource that intends to establish a linked forebay shall submit the corresponding set dispatch data consisting of (i) the downstream linked forebay, (ii)time lag, and (iii)MWh ratio, 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. Concerned about preceding language.</p>	<p>The intent of the last bullet (iii) is to provide market participants with the ability to submit linked forebays, time lag and MWh ratios when they reasonably expect that these constraints are required to prevent the noted resource limitations. Feedback on the current market rules language is welcome.</p>
65	ADE	September 29, 2023	H2O	<p>Re: Slide 28</p> <p>Concerned about exceeding the ADE in the DAM scheduling example.</p>	<p>The ADE is not set by the DAM schedule received. Rather it is set by the maximum quantity of energy bid or offered before DAM execution.</p>