

## MPM Responses to Stakeholder Feedback

*Note: Section references in the "Section" column are to the proposed [market rule amendments](#) (PDF) posted December 17, 2021, on the IESO's [stakeholder engagement page](#). Section references in the "Response" column are to the updated version of those proposed market rule amendments posted on March 15, 2022, unless otherwise noted.*

@ ID #	MP	Section	Comment	Response
1	OPG	Ch 7, 22.1.1	Section 22.1.1 should be revised to "...to submit <i>offers or bids</i> ..." to be consistent with 22.1.2.	This section has been changed to include "or bids" in response to this comment.
2	OPG	Ch 7, 22.1.4	22.1.1 speaks to registering "reference levels" whereas 22.1.4 speaks to registered "reference level values". Does the IESO register both reference levels and reference level values? If reference level values are not registered, 22.1.4 should be revised to  "...and reference level values <b>registered</b> for that market participant's..."	This section has been changed in response to your feedback to read as follows (changes in bold):  "The <i>IESO</i> shall make available to each <i>market participant</i> the <i>reference levels that are registered</i> and the <i>reference level values that are calculated</i> for that <i>market participant's resources</i> , in accordance with the applicable <i>market manual</i> ."
3	OPG	Ch 7, 22.1.5	If the reference level is the formula whereas the reference level value is the numerical estimate, shouldn't 22.1.5 apply to the reference level values (or outputs) that are derived by the formula? Suggested re-wording:  "...or an operating reserve reference level <b>whose output</b> does not monotonically increase in quantity..."	This section has been changed in response to your feedback to read as follow (changes in bold):  "The <i>IESO</i> shall not register an <i>energy offer reference level</i> or an <i>operating reserve offer reference level that produces reference level values that do</i> not monotonically increase in quantity, regardless of a <i>resource's short-run marginal costs</i> ."

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			Or  "...or an operating reserve reference level that <b>produces reference level values that do</b> not monotonically increase in quantity..."	
4	OPG	Ch 7,22.1.6, 22.1.7	Sections 3.5.3 and 3.6.2 apply to the numerical PQ pairs in an offer or bid. As the reference level is a formula, it would be more appropriate to ensure that its <b>outputs</b> are consistent with 3.5.3 and 3.6.2.	The following sections have been changed in response to your feedback to read as follows (changes in bold):  "22.1.6 <b>The reference level values of each energy offer reference level</b> shall be consistent with the requirements for <i>energy offers</i> in Chapter 7, section 3.5.3 of the <i>market rules</i> .  22.1.7 <b>The reference level values of each operating reserve offer reference level</b> shall be consistent with the requirements for <i>offers</i> to provide <i>operating reserve</i> in Chapter 7, section 3.6.2 of the <i>market rules</i> ."
5	OPG	Ch 7, 22.2.1	In which situations do reference levels change monthly? The reference level workbooks only appear to allow seasonal (summer or winter) changes to the formulas that calculate reference level values.	The only current example of a monthly varying cost is shown in section 7.6.1.1 of Market Manual 14.2, which addresses fuel-related costs for storage resources. Charging costs for storage resources are calculated based on <u>monthly average electricity purchase prices</u> .
6	OPG	Ch 7, 22.2.2	As above, the reference level (a formula) cannot be "below that resource's short-run marginal costs". Suggested revision:	The following sections have been changed in response to your feedback to read as follows:

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			"...may register a reference level <b>whose outputs are</b> below that resource's short-run marginal cost..."	<p>"22.2.2 The <i>IESO</i> shall determine the <i>reference levels</i> in section 22.2.1 based on a <i>resource's short-run marginal costs</i>.</p> <p>22.2.3 Notwithstanding section 22.2.2, the <i>IESO</i> may register a <i>reference level</i> that produces <i>reference level values</i> below a <i>resource's short-run marginal costs</i> at the request of the relevant <i>market participant</i>."</p>
7	OPG	Ch 7, 22.2.3	Assuming section 22.2.3 applies to energy, start-up, and speed-no-load reference levels, the units of the \$0 reference level should be specified (i.e., \$0/MWh, \$0/start, \$/hour).	This section has been removed in response to feedback received from the Technical Panel.
8A	OPG	Ch 7, 22.6.1, 22.1.1	<p>22.1.1 says "...into the energy or operating reserve markets" whereas 22.6.1 says "...into the energy and operating reserve markets."</p> <p>22.6.1 should be aligned with 22.1.1 by changing "and" to "or".</p>	<p>This section has been changed in response to your feedback as follows (changes in <b>bold</b>):</p> <p>"22.6.1 The <i>IESO</i> shall determine and register, in accordance with the applicable <i>market manual, day-ahead market</i> and <i>real-time market reference quantities</i> for each <i>dispatchable resource</i> registered to submit <i>offers</i> into the <i>energy <b>or</b> operating reserve</i> markets."</p>
8B	OPG	Ch 7, 22.6.1, 22.1.1	Additionally, 22.6.1 suggests the possibility of different reference quantities for the day-ahead and real-time markets, whereas 22.1.1 does not suggest the same variation for reference levels. I suggest to include similar references to the day-ahead and real-time markets in 22.1.1.	This different treatment of reference levels and reference quantities is intentional. The components of the cost structure of a resource does not change after the day-ahead market timeframe. Reference quantities can change between day-ahead and real-time timeframes, as a forced outage subsequent to the day-

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				ahead market may impact availability of supply, but would not be accounted for in the day-ahead reference quantity.
9	OPG	Ch 7, 22.6.7	The use of the word "may" implies that the IESO can register values higher than the maximum active power capability. I suggest 22.6.7.3 is revised to " <b>a value no higher than</b> the sum of the maximum active power capability..."	The proposed language does not permit the IESO to register values that are higher or lower than the maximum active power capability. It only permits the IESO to register the sum of the maximum active power capability. This section allows the IESO to set a reference quantity for a resource if the market participant has not provided the required supporting documentation or information required pursuant to section 22.6.3
10	OPG	Ch 7, 22.7.2	The last sentence in 22.7.2 refers to both reference levels and reference quantities. This sentence should be broken out into a separate section and present in section 22.5 to reflect that it applies to both reference levels and reference quantities sections.	This sentence was inadvertently moved from its own section to section 22.7.2. It has been moved to its intended section, section 22.8.1.
11	OPG	Ch 7, 22.8.3	22.8.3 allows participants five business days to accept or decline the review, whereas other timelines associated with the independent review (i.e., five business days for the IESO to solicit proposals and 10 business days for the review to provide an estimate) are listed only in Market Manual 14.2. I suggest the rules and manuals are aligned.	This timeline is inherently part of the obligation on the IESO to terminate the review if the market participant does not respond within the stated timeframe and, as a result, it is appropriate that it remains in the market rules. The timelines set out in the manuals are not directly tied to obligations in the same way.

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12A	OPG	Ch 7, 22.8.10 (now 22.8.12)	22.8.10 says the IESO "may not" apply a settlement charge." I feel this should say "shall not" apply a settlement charge".	This section has been changed in response to stakeholder feedback (changes in bold):  "22.8.12 The <i>IESO</i> <b>shall</b> not apply a <i>settlement</i> charge for subsequent reviews conducted as a result of the <i>IESO</i> rejecting a finding pursuant to section 22.8.8"
12B	OPG	Ch 7, 22.8.10 (now 22.8.12)	In what situation would the IESO apply a settlement charge over and above what was charged for the review that produced the rejected finding?	The IESO is not permitted to apply a settlement charge for the independent review above the amount equal to the amount charged by the independent consultant. Section 22.8.12 permits the IESO to apply a settlement charge to the market participant equal to the amount charged by consultant, but limits this amount to only the amount charged for the consultant's initial review, as the IESO is prohibited from applying a settlement charge for the cost of any subsequent reviews conducted as a result of the IESO rejecting a finding.
13	OPG	Ch 7, 22.9.3	The first time the term Market Control Entity is used is section 22.9.3. Prior to this, no rules identify that Market Control Entities must be designated, only that the disclosures of ownership must be made pursuant to 22.9.1. I suggest a revision that clarifies that entities disclosed pursuant to 22.9.1 must be designated as Market Control Entities.	Market participants must <u>disclose</u> certain persons and entities pursuant to section 22.9.1 as part of the registration process set out in Market Manual 1.5. One of these persons or entities is then <u>designated</u> as the market control entity for physical withholding pursuant to section 22.9.2. There is no obligation to designate the entities disclosed as "market control entities".
14	OPG	Ch 7, 22.10.2.4	Does 22.10.2.4 refer to 30 Business Days or 30 Calendar Days?	This section refers to calendar days. Section 22.12.4, which previously used the term "calendar days" has been changed to remove "calendar" to align the drafting conventions

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				related to "days" used in these <i>market rule</i> sections.
15	OPG	Ch 7, 22.11.1.2	The term "effective competitive discipline" is not defined elsewhere in the rules. If it is defined in the market manuals the phrase "as per the applicable market manual" should be included in 22.11.1.2.	This phrase is not defined in the market rules. Further details regarding the designation of global market power reference intertie zones have been added to section 4.1 of Market Manual 14.1 specifying that intertie zones that have at least 500 MW of total transfer capacity absent de-rates, outages or effects of ambient conditions, to be of sufficient size relative to the IESO-administered markets to be able to provide effective competitive discipline.
16	OPG	Ch 7, 22.12.1, 22.12.1.1, 22.12.1.2	What does it mean for the IESO to "reasonably determine effective competition is expected to be restricted" – why expected? Is this a forward looking assessment? If the Market Manuals provide further clarity perhaps "as per the applicable market manual" should be added to 22.12.1.2.	The assessment of restrictions to competition contemplates expected competitive conditions as well as current competitive conditions consistent with the use of the words "or is expected to be". Additionally, please see the response to OPG 45A.
17	OPG	Ch 7, 22.12.2 (now 22.12.3)	The section should be revised to "The IESO shall remove the designation..." In what situation would the IESO not remove the designation if the zone no longer meets the criteria?	If the circumstances that lead a currently-designated intertie zone to not meet the conditions in section 22.12.1 are expected to be transitory, then the IESO will not remove the designation for an uncompetitive intertie zone.
18	OPG	Ch 7, 22.15.3.3, 22.15.3.4, 22.15.3.5, 22.15.3.6 (now 22.15.4.3,	22.15.3.4 should end with "or" to identify that any of the conditions in 22.15.3.3-3.6 can trigger the test.	Adding "or" after 22.15.4.4 would be inconsistent with the drafting practice used throughout the market rules of "or" only being used following the second-last item in a list.

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		22.15.4.4, 22.15.4.5, 22.15.4.6)		
<b>19</b>	OPG	Ch 7, 22.15.4.2.1, 22.15.4.2.2 (now 22.15.5.2.1, 22.15.5.2.2)	To be consistent with 22.15.4.2, section 22.15.4.2.2 should refer to 22.15.3.5 and 22.15.3.6, rather than 22.15.3.4 and 22.15.3.5.	This change has been made in response to your feedback.
<b>20</b>	OPG	Ch 7, 22.1.5	22.1.5 identifies that reference levels must be monotonically increasing. In the event that only a subset of a resource's PQ pairs fails the conduct and impact test, how does the calculation engine ensure that the resulting mitigated offer curve is monotonically increasing? In other words, can mitigated offers violate the monotonically increasing requirement when combined with the unmitigated portion of an offer?	All offers must always be monotonically increasing including offers that are used by the calculation engine following the assessment of ex-ante mitigation. Section 11.6.3 in the day-ahead market draft Market Rules and section 11.6.1.4 in the pre-dispatch engine draft Market Rules provide further details on how the calculation engines will treat mitigated offers.
<b>21A</b>	OPG	Ch 7, 22.2.1	Under what circumstances would a reference level change monthly? Please provide examples.	Similar to the response to OPG 5, the only current example of a monthly varying cost is shown in section 7.6.1.1 of Market Manual 14.2 that addresses fuel-related costs for storage resources. Charging costs for storage resources are calculated based on monthly average electricity purchase prices.
<b>21B</b>	OPG	Ch 7, 22.2.1	Additionally, OPG notes that 22.2.1.2 requires the IESO to determine speed no-load offer reference levels for each thermal state of a resource. While OPG notes this is consistent with table 4-1 in the MPM DES 26.0, OPG is unsure how the	Section 22.2.1.2 has been changed in response to stakeholder feedback to remove the reference to thermal states.

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			concept of thermal state-dependent speed no-load reference levels would be practically implemented. Further, neither the thermal resource "Workbooks" nor MM 14.2 refer to "one speed no-load offer reference level per thermal state." Please clarify and provide rationale as to how thermal state-dependent speed no-load reference levels will be used going forward.	
<b>22A</b>	OPG	Ch 7, 22.2.3	If the IESO finds the documentation submitted by a participant to be deficient, what is the process for the participant to provide documentation and remedy the deficiency?	The language in section 22.2.3 referred to in this comment has been removed in response to comments received during technical panel meetings.
<b>22B</b>	OPG	Ch 7, 22.2.3	The section states that the IESO "may" register a value of \$0.10/MW. Under what circumstances will the IESO, having found the documentation insufficient, register a value other than \$0.10/MW?	The language in section 22.2.3 referred to in this comment has been removed in response to comments received during technical panel meetings.
<b>23</b>	OPG	Ch 7, 22.3.1	The section lists parameters that are not applicable to all resource types. OPG proposes a modification to "for each qualified resource that meets the requirements..."	This section has been amended in response to your feedback to read as follows (changes in <b>bold</b> ):  "The <i>IESO</i> shall determine the following <i>reference levels for non-financial dispatch data parameters</i> <b>in accordance with the applicable market manual</b> , by month or season if applicable, for each <i>resource</i> that meets the requirements in section 22.1.1"



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24A	OPG	Ch 7, 22.4.2	Under what conditions would a non-quick start resource be ineligible to submit start up and SNL offers into DA and RT markets?	Certain non-quick start resources, such as nuclear resources, will not be able to submit start up offers or speed no load offers, as stated in Table 3-1 on page 21 of the Offers, Bids and Data Inputs detailed design document.
24B	OPG	Ch 7, 22.4.2	Please clarify what the "two energy offer reference levels" refer to, and identify which market manual section details this process.	Section 7.1.3.2 of Market Manual 14.2 describes the two energy offer reference levels that are registered for Variant A and Variant B thermal resources. The two energy offer reference levels are the primary energy offer reference level and the secondary energy offer reference level. The distinguishing factor between the two types of energy offer reference levels is that secondary reference levels account for costs associated with start-up and speed-no-load, whereas primary energy reference levels do not.
25A	OPG	Ch 7, 22.4.3	Changes to fuel prices could cause the "lower-cost" profile to be more expensive than the "higher-cost" profile. OPG proposes renaming these categories in more neutral terms.	The IESO has updated the sections that refer to "lower-cost" and "higher-cost" profiles in response to this comment. This change has also been reflected in Market Manual 14.2.
25B	OPG	Ch 7, 22.4.3	Does each set of higher/lower-cost reference levels consist of distinct start-up, speed no-load, and energy offer reference levels?	Yes, if applicable. Section 22.4.3 has been modified in response to your feedback to read as follows (changes in <b>bold</b> ):  "For a <i>resource</i> that does not have multiple sets of <i>reference levels</i> determined pursuant to section 22.4.1 or 22.4.2 and which has indicated to the <i>IESO</i> that it can operate

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				according to two distinct cost profiles, the <i>IESO</i> shall determine a set of <i>reference levels</i> for each profile in accordance with the applicable <i>market manual</i> . <b>Each set of reference levels shall include all reference levels applicable to the resource."</b>
25C	OPG	Ch 7, 22.4.3	Does 22.4.3 apply to all resource types, including hydroelectric? As an example, does the higher cost profile produced by including the "Forebay Refill Opportunity Cost" as outlined in MM 14.2 section 6.4.5 fall under the procedures described in 22.4.4 and 22.5.5?	Section 22.4.3 applies to any resource that has indicated that it can operate according to two distinct cost profiles, including hydroelectric resources. The use of the forebay refill opportunity cost requires that resources request an alternate cost profile under section 22.4.3. Market Manual 14.2 has been updated to make this requirement clear in response to this comment. Requests to use the alternate cost profile reference levels that include the forebay refill opportunity costs are described in section 22.4.4 and 22.5.5 and information regarding the required supporting documentation is found in Market Manual 14.2.
26	OPG	Ch 7, 22.5.1 & 22.5.1.7	Does the IESO intend to review reference levels every two years? Preparing for a regular review of reference levels would require substantial effort and the establishment of internal processes by market participants. OPG would appreciate as much detail as possible on the IESO's planned review timelines and processes.	The IESO does not have an established review plan for reference levels with a two-year cadence. This section does not obligate the IESO to carry out a review of reference levels with any particular cadence, it prevents the IESO from updating reference levels unless certain conditions are met. The IESO anticipates that it will only initiate a process to establish reference levels when there is a significant change to a resource's costs or

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				where the values currently in effect were set a significant amount of time in the past.
27A	OPG	Ch 7, 22.5.2	Will the IESO notify the participant that a review is underway?	Yes. The IESO will provide information to the market participant that will let the market participant know that the review is underway. Section 3.4.2 of Market Manual 14.2 states that after the IESO initiates the process to determine reference levels or reference quantities, it will either issue a request for information or provide a preliminary review to the market participant.
27B	OPG	Ch 7, 22.5.2	Does the IESO have the responsibility to review any additional defenses of the documentation made by the participant prior to the IESO amending the reference level?	Section 22.5.2 enables the IESO to amend a reference level if, upon review, the previously registered reference level was not consistent with the supporting documentation. It is not related to assessment of any particular supporting documentation. Section 22.8.1 requires the IESO to communicate a preliminary view prior to registering a reference level or reference quantity.
28	OPG	Ch 7, 22.5.4	As this process is governed by MM 14.2 section 3.3, OPG proposes adding "in accordance with the applicable market manual" to 22.5.4.	Section 22.5.4 has been modified in response to your feedback to read as follows (changes in <b>bold</b> ):  "A <i>market participant</i> may, <b>in accordance with the applicable <i>market manual</i></b> , request that the <i>IESO</i> review one of its <i>resources' reference levels</i> if the <i>market participant</i> believes the <i>reference level</i> does not accurately describe the <i>short-run marginal</i>

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				<i>costs</i> or operational characteristics of that <i>resource</i> .
<b>29</b>	OPG	Ch 7, 22.5.8	While section 22.5.8 states that the IESO shall temporarily revise the reference level if the request met the applicable deadline, section 22.5.10 then gives the IESO discretion to decline the request if the IESO "...is not satisfied..." These two clauses seem at odds with one another. Since no definition of "temporarily" as used in 22.5.8 is given, the IESO could conceivably replace the reference level as per 22.5.8, then immediately return to the reference in force at the time of the request as per 22.5.10. Without a definition of "temporarily", 22.5.7 and 22.5.8 have no real authority.	Section 22.5.9 states that the IESO may use the reference level value in force at the time of a request despite section 22.5.8 if it is not satisfied that the documentation submitted supports the market participant's request.
<b>30</b>	OPG	Ch 7, 22.5.10.3	OPG proposes amending this section to "...up to 30 days...".	The 30-day period in section 22.5.10.3 provides an incentive for market participants to provide the appropriate supporting documentation in the time required and is intended to be a firm period of time.
<b>31A</b>	OPG	Ch 7, 22.5.11	These sections refer to a settlement charge. What is the basis of the settlement charges?	The basis for levying a settlement charge in these circumstances is that the market participant provided inputs that resulted in reference level values that were not reflective of the short-run marginal costs of a particular resource. This settlement charge will reduce the net settlement for the resource under

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				<p>certain circumstances that will be described in Chapter 9.</p> <p>This settlement charge will be shared for stakeholder review as part of the settlements batch.</p>
<b>31B</b>	OPG	Ch 7, 22.5.11	<p>While OPG acknowledges that the participant and the IESO are to have agreed on the form and content of the documentation in advance, participants should have a minimum of four business days to provide such documentation. Especially in the event that a participant has made requests for multiple facilities, the proposed timeline of two business days could be insufficient to gather accurate and defensible documents. Depending on the form of documentation agreed upon by the MP and IESO (e.g., invoice, financial or plant reporting), such a submission may take up to a month. OPG also notes that other timelines in the Market Rules, such as the Notice of Disagreement process, allow participants up to four business days to submit documentation (see Chapter 9 section 6.3.10).</p>	<p>Please see the IESO’s response to comment OPG 88 in the previous responses to stakeholder feedback on the market power mitigation draft rules and manuals. Market participants are aware of the informational requirements when they submit requests for use of a higher cost reference level profile. As a result, the IESO anticipates that two business days is sufficient preparation time. Market participants can act proactively to ensure that they gather information as they make the request.</p> <p>Lengthening the review window could have design implications on settlement charges that may need to be levied, since pushing the reviews outside a certain window could require further after-the-fact adjustment of make-whole payments.</p> <p>Keeping the duration to two business days supports the efficient resolution of these matters, avoiding unnecessary delays and unnecessary after-the-fact adjustment to make-whole payments.</p> <p>The IESO will continue to assess the appropriateness of this duration as more information comes to light about the nature</p>

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				and form of documentation that will be used to support such requests.
<b>31C</b>	OPG	Ch 7, 22.5.11	In addition, OPG suggests revising the section for clarity as follows: "If the market participant fails to provide the documentation within four business days the specified time or if the IESO..."	The requested change would increase the duration in the section from two business days to four business days. Please see the response to OPG 31B that addresses a prior request by OPG to increase the duration in this section from two business days to five business days.
<b>32</b>	OPG	Ch 7, 22.5.12	OPG suggests that there should be some statement in this section that clearly stipulates that changes are "preliminary views". A similar statement exists in the "change reference quantity section" in 22.7.2. With respect to 22.7.2, OPG suggests separating this statement out into its own section	Please see the response to OPG 10.
<b>33</b>	OPG	Ch 7, 22.8.4 (now 22.8.5)	The MP should have equal input to the statement of issues to be reviewed, as the IESO's framing of the issue may not be aligned with the MP's.	The IESO has removed references to the "statement of issues" and replaced them with "applicable <i>reference levels</i> and <i>reference quantities</i> ". The IESO anticipates that market participants will use a form to trigger the independent review process and that market participants will use the form to indicate the matters to be reviewed. The relevant portions of the form will be provided to the reviewer.

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34A	OPG	Ch 7, 22.8.5 (now 22.8.6)	OPG suggests that the Market Rules/Manuals should establish standards of quality, transparency, and completeness for the consultant's presentation of findings.	The Independent Review Process is still being developed, including expectations for quality, transparency and completeness of consultants' reports. As the IESO continues this development, we will revisit this issue and consider whether further detail is required in the market manuals. Further details are still being developed and future supplements to Market Manual 14.2 on this topic will be brought forward for stakeholder review.
34B	OPG	Ch 7, 22.8.5 (now 22.8.8)	Similarly, 22.8.6.5 identifies that the IESO can reject a finding if the consultant "failed to provide reasons for the finding". The rules/manuals should identify expectations of sufficient reasoning on the consultant's part.	Please see the response to OPG 34A.
35	OPG	Ch 7, 22.8.9 (now 22.8.12)	Please clarify which set of reference levels or quantities are referred to as those "originally requested" by the MP.	The originally requested reference levels and/or reference quantities are those requested pursuant to section 3.3.2 of Market Manual 14.2.
36	OPG	Ch 7, 22.8.10 (now 22.8.12)	OPG suggests amending to "The IESO shall not apply a settlement charge..." The rule as written gives the IESO unnecessary flexibility to apply a settlement charge.	This section has been changed in response to stakeholder feedback (changes in bold):  "22.8.12 The <i>IESO</i> <b>shall</b> not apply a <i>settlement</i> charge for subsequent reviews conducted as a result of the <i>IESO</i> rejecting a finding pursuant to section 22.8.8."

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37	OPG	Ch 7, 22.9.1.5	Please clarify what is meant by "are controlled by the market participant". OPG suggests expanding 22.9.1.5 to include a definition of the term "controlled".	Control, with respect to an affiliate, should be understood consistent with Ontario's <i>Business Corporation Act's</i> deemed control provisions, as the term "affiliate" is defined in the market rules as "having the meaning ascribed thereto in the <i>Business Corporations Act</i> (Ontario)".
38A	OPG	Ch 7, 22.9.2 & 22.9.3	OPG notes that both 22.9.2 and 22.9.3 include requirements to designate the market control entity for physical withholding (MCEPW) for a resource. These sections should be harmonized to eliminate any overlap.	These sections address different matters. Section 22.9.2 contains the obligation to designate market control entities for physical withholding. Section 22.9.3 obligates market participants to do so in accordance with the applicable market manual.
38B	OPG	Ch 7, 22.9.2 & 22.9.3	Additionally, while the definition of market control entity (MCE) references entities disclosed pursuant to 22.9.1, OPG feels it is unclear that this is the case when reading 22.9.3. A helpful addition to 22.9.3 might be:  "a market participant shall designate any entities disclosed pursuant to 22.9.1 as market control entities ... in accordance with the applicable market manual."	This clarification is already provided by the definition of MCE:  "market control entity means a person or entity disclosed by a market participant to the IESO pursuant to section 22.9.1 of Chapter 7 of the market rules [...]."
39	OPG	Ch 7, 22.10.1.1	The section identifies that the IESO may designate constrained areas "in advance of" configuration changes. While OPG acknowledges the value of anticipating constraints, for the purposes of market power mitigation, an area should not be designated as constrained until such	This section states that the IESO may designate an area as a <i>potential constrained area</i> in advance of configuration changes. It does not permit the IESO to designate either <i>narrow constrained areas</i> or <i>dynamic constrained areas</i> in advance of configuration changes.



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			configuration changes have actually occurred.	<p>The IESO must be able to designate <i>potential constrained areas</i> in advance of configuration changes to ensure that any congestion-related issues that manifest as a result of these configuration changes are remedied through designation of a <i>dynamic constrained area</i> or a <i>narrow constrained area</i>.</p> <p><i>Dynamic constrained areas</i> and <i>narrow constrained areas</i> are only designated after significant import congestion leading into a <i>potential constrained area</i> actually occurs.</p>
40A	OPG	Ch 7, 22.10.2.1 (now 22.10.2.2)	MM 14.1 section 2.2 identifies that in the [real-time market], if a single interval is import constrained, the entire hour will be considered constrained. OPG feels this would lead to NCA's being too broadly applied. As an example, a region in which one interval (i.e., 8% of the hour) was import constrained for 4% of the hours in the previous 365 days would be deemed an NCA, despite the fact that this means the region was constrained only 0.3% of the time. OPG proposes that the IESO only consider an hour in RTM constrained if the majority of intervals were import constrained.	<p>It is appropriate that a single interval of a binding constraint in the real-time market results in the potential constrained area to be considered as import constrained for the entire hour.</p> <p>During this interval, the DSO is not able to use resources that are external to the NCA to meet the supply requirements in the NCA. As a result, even a single interval of a dispatch hour can significantly restrict competition within the NCA, leading to inefficient scheduling and pricing.</p> <p>Making the requested changes would allow significant restrictions to competition to persist without triggering the intended response, which is to designate an NCA.</p> <p>In the example provided, competition was restricted in 4% of the hours in the study period, which means that resources inside the NCA had a significant amount of market power during those dispatch hours. Viewing the total</p>

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				number of intervals across the study period, rather than the number of dispatch hours where competition was restricted, does not properly account for the extent to which even a single interval of a binding constraint into an NCA restricts competition within that dispatch hour.
<b>40B</b>	OPG	Ch 7, 22.10.2.1 (now 22.10.2.2)	OPG notes that the implications of 22.10.2.1 are not readily apparent without a complete reading of MM 14.1 section 2.2. OPG feels that this rule (and others) would benefit from Technical Panel review of the Market Manuals, rather than just the Rules.	The draft market manuals have been publicly available since August 2021. The IESO has received comments on the market manuals both prior and following the technical panel vote-to-post. The IESO has encouraged technical panel members to review the market manuals and has provided links. The Market Manuals provide clear references to the Market Rules they supplement.
<b>41</b>	OPG	Ch 7, 22.10.2.4	Section 22.12.2 identifies when the IESO may remove the designation of an intertie zone as uncompetitive. For consistency, similar provisions should be included for all constrained area designations.  Further, MM 14.1 outlines the process for removing such a designation for dynamically constrained areas, but OPG is unclear how the same assessment is performed for narrowly constrained areas.	Section 22.10.2 has been updated and further content has been added to Market Manual 14.1 in response to your feedback.

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42	OPG	Ch 7, 22.11.1.2	Assuming MM 14.1 defines the process for assessing whether an intertie zone is able to provide effective competitive discipline, 22.11.1.2 should be amended to reference "the applicable market manual".	Section 22.11.2 requires the IESO to designate global market power reference intertie zones in accordance with the applicable market manual. In addition, please see the response to OPG 15, which addresses evaluating an intertie zone's ability to provide effective competitive discipline.
43	OPG	Ch 7, 22.11.3	"Publication" is italicized, but is not a defined term ("publish" is). OPG suggests removing the italics.	Please see Chapter 1, section 7.1.1.3: "when italicized, other parts of speech and grammatical forms of a word or phrase defined in the market rules have a corresponding meaning".
44A	OPG	Ch 7, 22.12.1.1	Please explain how this assessment is performed directionally. That is, can an MP trigger the condition if they have 90% of the scheduled injections and 5% of the scheduled withdrawals?	The IESO will analyze the total volume of day-ahead-scheduled imports and exports per market participant for all the boundary entity resources for a particular intertie zone. If any one market participant makes up at least 90% of either of either of these, then the designation criteria in section 22.12.1.1 is met and the intertie zone is designated as uncompetitive. In the scenario outlined in the comment, the market participant makes up at least 90% of scheduled injections and the criteria is met to designate the intertie zone as uncompetitive.
44B	OPG	Ch 7, 22.12.1.1	Please confirm the meaning of "over boundary entity resources connected to that intertie zone".	In order to carry out this analysis, the IESO will assess all day-ahead scheduled imports and exports scheduled on any boundary entity resource for that intertie zone.

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44C	OPG	Ch 7, 22.12.1.1	The term "day-ahead market" may be repeated unnecessarily in this section.	This section has been amended to remove the second reference to the "day-ahead market" in response to your feedback.
45A	OPG	Ch 7, 22.12.1.2	Similar to the above comment on 22.11.1.2, if the criteria for determining whether competition is expected to be restricted is outlined in the MM, this section should reference it.	A new section 22.12.2 has been added:  "The IESO shall designate an <i>intertie zone</i> as uncompetitive in accordance with the applicable <i>market manual</i> ."
45B	OPG	Ch 7, 22.12.1.2	With respect to the forward-looking statement "is expected to be restricted", does the IESO contemplate a specific time horizon for the assessment (e.g., competition is expected to be restricted in the next two days)?	Additional content has been added to Market Manual 14.1 in response to this comment. The new content specifies that future-dated designations cannot take effect before the intertie zone is expected to be uncompetitive.
46	OPG	Ch 7, 22.12.2 (now 22.12.3)	The section gives the IESO discretion (i.e., "may", rather than "shall"). OPG understands this wording choice may be intended to avoid requiring a change of designation when the change to the intertie is expected to be short-lived. This is reasonable, but OPG suggests adding language to clarify this intention.	The IESO has added content to Market Manual 14.1 in response to this comment.
47A	OPG	Ch 7, 22.12.5 (now 22.12.6)	OPG suggests the term "material change in market trade" should be defined.	At this time, the IESO is of the view that the ordinary meaning of the phrase is adequately descriptive based on the context in which it is deployed.

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47B	OPG	Ch 7, 22.12.5 (now 22.12.6)	Both 22.12.4 and 22.12.5 refer to IESO review of intertie zones already designated as uncompetitive. Please identify when a zone not currently designated as uncompetitive would be reviewed.	Undesignated intertie zones will be reviewed quarterly, as section 22.12.1.1 requires the IESO designate an intertie zone as uncompetitive when a single market participant received at least ninety percent of the day-ahead market scheduled energy withdrawals or injections over boundary entity resources connected to that intertie zone scheduled in the previous calendar quarter.
48	OPG	Ch 7, 22.13.1.5	In general, OPG proposes that all MPM thresholds are defined more consistently as “[greater/less] than [X] % of”, unless not applicable. As an example, 22.13.1.5 could be re-written as:  “minimum loading point greater than 200% of the reference level;”  OPG feels this would improve readability and clarity of the rules.	The IESO will supplement Market Manual 14.1 by adding one or more tables that provide all of the conduct thresholds and impact thresholds in an appendix and will make the updated Market Manual publicly available. These conduct thresholds and impact thresholds are already captured in the calculation engine market rules, so the introduction of this content in Market Manual 14.1 will be to support transparency and does not represent any change.
49	OPG	Ch 7, 22.14.1	Section 22.15.1 specifies that the IESO shall assess “physical withholding of energy and operating reserve”, whereas 22.14.1 specifies more generally “economic withholding”. The sections should be aligned for consistency.	This section has been changed in response to your feedback to read as follows (changes in <b>bold</b> ):  “The <i>IESO</i> shall, for <i>dispatchable resources</i> , apply a conduct test and impact test <b>to assess economic withholding of energy and operating reserve</b> in any <i>dispatch hour</i> using <i>day-ahead market</i> and <i>real-time market reference levels</i> in the processes to determine <i>day-ahead schedules</i> and <i>pre-dispatch</i> ”

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				<i>schedules, respectively, as set out in Appendix 7.1A and Appendix 7.2A of the market rules."</i>
<b>50A</b>	OPG	Ch 7, 22.15	The eligibility and conduct tests in 22.15 refer to an "energy offer" and "operating reserve offer". Given that offers contain multiple fields, only one of which is appropriate for comparison with the reference quantity value, the language should be updated to "the highest MW value in the energy offer" and "the highest MW value in the operating reserve offer". OPG's understanding is that only the highest price quantity pair in a given offer will be eligible for assessment of physical withholding.	New section 22.15.3 has been added in response to this feedback. It reads as follows:  "When comparing an <i>offer</i> to the relevant <i>reference quantity value</i> pursuant to section 22.15.4, 22.15.5, 22.15.11, or 22.15.13 the <i>IESO</i> shall use the highest MW quantity value from that <i>offer</i> ."
<b>50B</b>	OPG	Ch 7, 22.15	Additionally, section 5.3 of MM 14.1 states:  "In addition, to assess physical withholding that can impact a commitment decision for a GOG-eligible resource, the IESO considers the conditions in the pre-dispatch run that was the last opportunity to operationally commit at that GOG-eligible resource for a given dispatch hour. In these cases, a GOG-eligible resource must meet conditions for a given dispatch hour in both of these pre-dispatch runs."  Please explain which constrained area a resource would be grouped within under	Constrained area conditions for the non-quick start resource will be determined for each dispatch hour in the look ahead period. The first step is to identify the constrained area condition for the final pre-dispatch run for a given dispatch hour. In this example, for HE 15, the final pre-dispatch run (initiated in HE 14) constrained area condition for the non-quick start resource is DCA. The second step is to identify whether the non-quick start resource met any condition for the same dispatch hour (HE 14) in the pre-dispatch run that was the last opportunity to operationally commit the NQS resource; in this example the pre-dispatch run at HE 8.

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			<p>the following scenario:</p> <p>An NQS resource is committed for HE15-HE17, with a lead-time of 6 hours. The “last opportunity to operationally commit” is before the HE9 PD run. The final PD run before reaching MLP is during HE14.</p> <p>Based on section 5.3 of MM 14.1, this NQS resource must meet the testing eligibility conditions for a given dispatch hour (e.g. HE15) in both the HE8 and HE14 PD runs.</p> <p>If the resource is in a BCA during the HE8 PD run and a DCA during the HE14 PD run, which constrained area thresholds will be applied to this resource for the purposes of the conduct and impact tests? How would this resource be grouped in the Market Control Entity conduct test?</p>	<p>The constrained area condition that determines the conduct and impact thresholds that apply is the condition from the final pre-dispatch run, consistent with section 22.15. This approach to determine the relevant conduct threshold applies for both the resource conduct test and the market control entity conduct test.</p> <p>Therefore if the non-quick start resource meets the DCA conditions in the final pre-dispatch run, the market control entity conduct test would assess if the aggregate offers for all of the resources in the same market control entity for physical withholding offered an aggregate quantity below the relevant market control entity conduct test threshold.</p>
51	OPG	Ch 7, 22.15.2	Please provide an example of a situation in which the IESO would cease an assessment of physical withholding.	There are many reasons why the IESO might cease an assessment of physical withholding including, but not limited to, the following: If a market participant requested an alternate reference quantity value and provided documentation supporting an alternate reference quantity value that resulted in the conduct test no longer being failed, the IESO would cease the assessment (since the conduct test was no longer failed) and issue a first notice of physical withholding to the market participant, consistent with section 22.15.19.

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52A	OPG	Ch 7, 22.15.3.2 (now 22.15.4.2)	In the real-time market, does the entire hour need to have a locational marginal price greater than \$25/MWh, or will a resource trigger the condition if a single interval meets 22.15.3.2?	The IESO determines if conditions in section 22.15.4 and 22.15.11 are met for assessments of physical withholding in the real-time market on an interval basis. The conditions from section 22.15.4.1, 22.15.4.2, 22.15.11.1 and 22.15.11.2 that pertain to the real-time market are met for any intervals where the relevant locational marginal price is greater than the relevant threshold (\$25/MWh for energy and \$5/MW for operating reserve). If these conditions are met for only a subset of the intervals of a dispatch hour in the real-time market, then only those intervals will be assessed for physical withholding for that dispatch hour.
52B	OPG	Ch 7, 22.15.3.2 (now 22.15.4.2)	The requirement that resources “can supply at least 10 MW” is unclear. How will the IESO assess how much energy a resource can supply? Will resources on outage be considered able to supply energy? If this assessment is based on the aggregate reference quantity of the resources, this should be specified. Note that this comment applies to 22.15.3.1, 22.15.10.1, and 22.15.10.2.	The assessment of the power that a resource can supply is based on registration data, maximum resource active power capability, and the maximum registered dispatchable load. Sections 22.15.4.1 and 22.15.11 have been updated in response to this comment.
52C	OPG	Ch 7, 22.15.3.2 (now 22.15.4.2)	The phrase “market control entity for physical withholding was associated with resources...” is unclear, as the term “associated” is unspecific. A reference to section 22.9 may help improve clarity.	Sections 22.15.4.2 has been clarified in response to this comment to read as follows (changes in <b>bold</b> ):



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				<p>"The <i>IESO</i> may test an <i>energy offer</i> submitted by the <i>registered market participant</i> for a <i>resource</i> to assess <i>physical withholding of energy</i> if the <i>resource</i>:</p> <p>[...]</p> <p>had a day-ahead market or a real-time market locational marginal price for energy greater than \$25/MWh and the <i>market control entity for physical withholding</i> for that <i>resource</i> was <b>designated as the market control entity for physical withholding for resources</b> that can supply at least 10 MW of <i>energy</i> in aggregate <b>based on those resources' maximum resource active power capabilities"</b>.</p> <p>Similar changes have been made to section 22.15.11.2 (formerly 22.15.10.2).</p>
53	OPG	Ch 7, 22.15.3.3 & 22.15.3.4 (now 22.15.4.3 & 22.15.4.4)	Please explain how the IESO will assess whether a transmission constraint is "binding".	A transmission constraint will be assessed to be binding if the shadow price of that transmission constraint is non-zero.
54	OPG	Ch 7, 22.15.4.1.2 (now 22.15.5.1.2)	The August 2021 drafting of MM 14.1 stated that only resources located in the same dynamically or narrowly constrained area would be assessed as an "aggregate" according to 22.15.4.1.2. Updates to 14.1 in this second draft significantly broaden	This modification was made in response to IESO solution development, as indicated in the table entry for section 5.4 of Market Manual 14.1 from the document outlining the market power mitigation batch market manual and market rule changes.

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			<p>the scope of eligibility to any resource under the same MCEPW that is located within any constrained area of the same type.</p> <p>Given the fact that constrained areas represent distinct regions in which transmission limitations could give local generators increased ability to exercise market power, OPG fails to see how resources located in entirely different constrained areas should be assessed together under the more restrictive MCE conduct test. OPG proposes that the wording originally proposed by the IESO in MM 14.1 section 5.4 is restored and Chapter 7 section 22.15 aligned.</p>	<p>This approach is required given solution restrictions around the conduct test development for physical withholding. Amending this section in the requested manner is not possible given the features of the solution that will support the conduct test for physical withholding.</p> <p>This approach will not expose market participants to increased risk as any simulation and impact tests will be limited to a particular <i>narrow constrained area</i> or <i>dynamic constrained area</i>. In order to carry out the impact test, the IESO will only assess resources within the same constrained area. This approach will ensure that only where the resources in a constrained area held back supply that significantly impacted LMPs within that constrained area will the resources fail the impact tests.</p>
55	OPG	Ch 7, 22.15.5 (now 22.15.6)	In the event that a resource generated energy without having submitted offers, how would the conduct and impact tests for physical withholding be applied?	Actual injections of energy are not considered as part of the assessment of physical withholding of energy. The conduct test for physical withholding for energy involves comparing submitted energy offers to energy reference quantity values.
56	OPG	Ch 7, 22.15.6 (now 22.15.7)	Please explain what is meant by “the most restrictive of the conduct thresholds”. How would the MCE conduct tests be applied to a single resource?	The most restrictive of the conduct thresholds in section 22.15.7 means that if more than one condition was met at a resource, the IESO will determine which condition results in the lower conduct threshold. That condition and conduct

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				threshold will be used for the conduct test for physical withholding. The MCE conduct tests (found in sections 22.15.5.1.2 and 22.15.5.2.2) compare the submitted energy offers in aggregate for a number of resources to the aggregated reference quantity values for those same resources.
<b>57A</b>	OPG	Ch 7, 22.15.8 (now 22.15.9)	Given the financial implications of the simulated locational marginal prices, MPs will need assurance that the calculation is performed according to an open, transparent and accurate methodology. Will the IESO store all calculation engine inputs for every hour-1 for each trade date?	The IESO will store all of the inputs that it requires to run the simulations necessary to carry out the impact tests for physical withholding. The IESO intends to supplement Market Manual 14.1 with additional process-level information about how the simulations for the impact test will be carried out. This supplemental content will be provided for stakeholder review.
<b>57B</b>	OPG	Ch 7, 22.15.8 (now 22.15.9)	Additionally, calculation engine inputs are only a part of a complex optimization process. How will the IESO ensure controlled simulations that account for any external variables?	To carry out impact tests, the IESO will compare the simulated as-offered results to the simulated reference quantity results, as found in sections 22.15.8 and 22.15.16. This ensures that the simulation will isolate the impact of the relevant MWs on the energy LMP or operating reserve LMP. This prevents external variables from affecting the outcomes of impact tests.

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<b>58A</b>	OPG	Ch 7, 22.15.9 (now 22.15.10)	How will the IESO treat non-quick start and other multi-resource commitment dispatch that may have changed as a result of a simulated quantity? In other words, how are the impacts of one simulated outcome that with multi-resource dispatch impacts treated for the assessment of a subsequent hour?	<p>To carry out an impact test for physical withholding, the IESO will carry out the simulation across the dispatch hours where conditions were met, including modeling of commitment for NQS resources.</p> <p>If a NQS resource failed the conduct test, the IESO will run the simulation to determine LMPs that are calculated for the NQS resource using the reference quantity value in place of the submitted offer.</p> <p>The simulation will update the offers for the resource to use the reference quantity for the relevant dispatch hour(s) for the resource in all pre-dispatch runs for the dispatch day to assess any changes to commitment decisions and LMPs.</p>
<b>58B</b>	OPG	Ch 7, 22.15.9 (now 22.15.10)	Please explain why the reference quantity energy locational marginal price uses not only the reference quantities for the resource but its reference levels. Could this approach flag a resource as having had a price impact over and above the actual impact of it having physically withheld? As an example, if a resource's offer price was above its reference level, but within the appropriate threshold, this would not trigger the economic withholding conduct test, but could contribute to the assessment of price impact for physical withholding. The implications of using both reference quantities and levels in the simulated	<p>The IESO will use the submitted offer, combined with the relevant reference level values for that dispatch day to create an offer curve that it will use to calculate the relevant simulated reference quantity locational marginal price.</p> <p>The IESO intends to supplement Market Manual 14.1 with additional process-level information about how the simulations for the impact test will be carried out. This supplemental content will be provided for stakeholder review.</p>

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			engine runs are complex, and OPG requests examples detailing the calculation.	
<b>58C</b>	OPG	Ch 7, 22.15.9 (now 22.15.10)	<p>Please clarify whether the simulated reference quantity energy locational marginal price uses the reference quantities of:</p> <p>a) any resource that failed any of the conduct tests in 22.15.4;</p> <p>b) any resource that failed the same conduct test as the resource being tested;</p> <p>c) any resource that failed any of the conduct tests and had the same MCEPW as the resource being tested;</p> <p>d) any resource that failed the same conduct test and had the same MCEPW as the resource being tested; or</p> <p>e) only the resource being tested.</p>	<p>For assessment of physical withholding for NCA or DCA conditions from section 22.15.4 the reference quantities to be used to calculate the simulated reference quantity energy locational marginal price will be the reference quantities of all resources in that NCA or DCA that failed any of the conduct tests in 22.15.5 and share the same market control entity for physical withholding.</p> <p>The IESO intends to supplement Market Manual 14.1 with additional process-level information about how the simulations for the impact test will be carried out. This supplemental content will be provided for stakeholder review.</p>
<b>59A</b>	OPG	Ch 7, 22.15.10 (now 22.15.11)	Are the conduct tests applied to each of the three operating reserve markets?	Conduct tests are applied for all classes of operating reserves for assessments of physical withholding for operating reserve. Section 5.5 of Market Manual 14.1 describes how the relevant conduct tests are applied.
<b>59B</b>	OPG	Ch 7, 22.15.10 (now 22.15.11)	Section 3.6.2 of the MPM Detailed Design states that "When a particular class of operating reserve is tested for market power mitigation, it includes testing all offers that can satisfy that specific requirement". This requirement is not specified in the rules.	See response to OPG 59A.

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			Additionally, the ability of higher quality classes of OR to satisfy requirements of lower quality classes should be included. As an example, if a resource has a 10N OR reference quantity value of 30 MW, and a 10S OR reference quantity value of 15 MW, offers of 45 MW (10S) and 0 MW (10N) should not fail the conduct test for 10N.	
60	OPG	Ch 7, 22.15.10.3 (Now 22.15.11.3)	This section should be revised to specify that the class of operating reserve is considered in the assessment. A possible clarification: "the offer quantity for a given operating reserve class was below the resource's reference quantity value and the operating reserve class's locational marginal price..."	This level of detail is beyond what is required for the market rules. Section 5.5 of Market Manual 14.1 explains how the IESO carries out the conduct test when assessing physical withholding of operating reserve.
61A	OPG	Ch 7, 22.15.18.1 (now 22.15.19.1)	Offers submitted in the RTM on a given day could be related to two different dispatch days. As an example, offers submitted on January 1st could be for either January 1st or January 2nd. Given that 22.15.18.1 states the notice will be issued 180 days following the day the offer was submitted, please confirm that notices relating to offers submitted for different dispatch days could be issued on the same day.	This section has been changed in response to your feedback to read as follows (changes in <b>bold</b> ):  "Notices issued pursuant to this section shall be issued no later than 180 days following the <i>dispatch day</i> <b>for</b> which the <i>offer</i> was submitted that failed the impact test for <i>physical withholding</i> . "

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61B	OPG	Ch 7, 22.15.18.1 (now 22.15.19.1)	Additionally, will two hours within the same day be treated as separate instances of physical withholding for the purposes of the persistence multiplier?	Two hours within the same day are both part of the same instance of physical withholding. See the definition of <i>instance of physical withholding</i> :  "instance of physical withholding means a <i>dispatch day</i> on which <b>at least one of a market participant's offers</b> for a <i>resource</i> failed a conduct test and associated impact test used to assess <i>physical withholding</i> in either <i>the day-ahead market</i> or <i>real-time market</i> " [Emphasis added.]
62A	OPG	Ch 7, 22.15.20 (now 22.15.21)	As written the rules place no obligation on the IESO to review the documents provided by the participant. Participants should also have the opportunity to represent their opinion of the reference quantity, rather than simply presenting documentation. A potential revision to the section might be "...the market participant may submit to the IESO a proposal for an alternate reference quantity value, which the IESO shall review within five business days..."	See response to OPG 89A.
62B	OPG	Ch 7, 22.15.20 (now 22.15.21)	Will a proposal received pursuant to 22.15.20 be considered differently if the reference quantity in question had previously been subject to the independent review process?	The IESO's review of the supporting documentation is not impacted by any consideration of previous use of the independent review process. If a market participant has used the independent review process to determine a reference quantity, then the reference quantity

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				values for that resource will be consistent with the outcome of the independent review process. If a conduct test is failed with this reference quantity value, then any submissions by the market participant for alternate reference quantity values are incremental and separate to the independent review process.
63A	OPG	Ch 7, 22.15.21 (now 22.15.22)	Please explain the significance of the phrase "the quantity that the resource was calculated to have been able to supply using the reference quantities". Does this have a different meaning than "the reference quantity value"? If not, OPG suggests replacing with the latter phrasing.	This section has been changed in response to your feedback to read as follows (changes in bold):  "If the <i>IESO</i> determines that the supporting documentation demonstrates that a <i>resource</i> was able to supply a quantity of <i>energy</i> or <i>operating reserve</i> different than the quantity that the <b><i>resource than the resource's reference quantity values during the instance of physical withholding</i></b> , the <i>IESO</i> shall determine an <i>alternative reference quantity value</i> for the <i>resource</i> and repeat the conduct test applied pursuant to section 22.15.5 or 22.15.13 and impact test applied pursuant to section 22.15.8 or 22.15.16, as applicable, using the <i>alternative reference quantity value</i> in the place of the applicable <i>reference quantity</i> ."
63B	OPG	Ch 7, 22.15.21 (now 22.15.22)	OPG notes that it is possible that the new assessment of a resource's capability may cause it to no longer meet the eligibility conditions in 22.15.3.1 and 22.15.10.1, which state that the conduct test is applied to resources that "can supply at	The assessment of the supply that a resource can provide is based on registration data. As a result, this consideration is not impacted by a request for an alternate reference quantity value and the modification proposed here is not necessary.



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			least 10 MW” of energy or operating reserve. To cover the case of a resource that, following the review, is determined to be able to supply less than 10 MW, 22.15.21 should be amended to require reassessment according to 22.15.3.1 and 22.15.10.1.	
<b>63C</b>	OPG	Ch 7, 22.15.21 (now 22.15.22)	The section indicates that the conduct test will be repeated, and the impact test will be repeated “as applicable”. OPG’s interpretation is that the impact test will only be performed if the conduct test has been failed. Is this correct?	OPG’s interpretation is correct. This section cross-references section 22.15.8 and section 22.15.16. These sections describe the impact tests for physical withholding and state that the impact test for either energy or operating reserve may only apply an impact test when the conduct test failed.
<b>64</b>	OPG	Ch 7, 22.15.24 (now 22.15.25)	The section cites 22.15.20.1, but the “request” referred to is outlined in 22.15.20. OPG suggests revising.	The IESO has made the suggested change to section 22.15.21.
<b>65</b>	OPG	Ch 7, 22.15.25 (now 22.15.26)	Sections 22.15.24 and 22.15.25 appear to be redundant to one another. If OPG’s view is incorrect, could the IESO please explain the differences in application of each section?	These sections address different issues. Section 22.15.24 obligates the IESO to issue a second notice of physical withholding if: (1) the repeated conduct and impact tests are failed or (2) the IESO determines that the supporting documentation does not demonstrate that a resource was able to supply a different quantity of energy or operating reserve than the resource’s reference quantity value. Section 22.15.25 obligates the IESO to issue a second notice of physical withholding if: (1) the market participant does not request that the IESO determine an alternative reference

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				quantity or (2) if the market participant notifies the IESO that it will not make such a request.
<b>66A</b>	OPG	Ch 7, 22.15.26 (now 22.15.27)	The section states that additional information regarding the conduct and impact tests will be presented "if applicable". OPG suggests that information regarding the tests shall always be applicable and should always be provided to the participant.	<p>The language "if applicable" in this section applies to the additional information regarding the conduct test and the impact tests. There are a number of scenarios under which there would be no additional information that would be provided.</p> <p>These scenarios include occasions when the market participant does not request an alternate reference quantity value under section 22.15.21 and occasions when the IESO has determined that the initial reference quantity value continues to be correct, even taking the request for an alternate reference quantity value under section 22.15.21 into consideration.</p> <p>In these scenarios, the conduct tests and the impact tests that precede the second notice are identical to the conduct tests and impact tests that precede the first notice.</p> <p>In these scenarios, the market participant is not provided additional information as part of the second notice as it has already been provided with the relevant information in the first notice.</p>
<b>66B</b>	OPG	Ch 7, 22.15.26 (now 22.15.27)	Given that the charge will relate to a dispatch day approximately 315 days previously, on which settlement statement will the charge be issued?	The timelines associated with application of a settlement charge relating to an instance of physical withholding will be found in the settlement market manuals and will be brought

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				forward for stakeholder review with the settlements batch.
<b>66C</b>	OPG	Ch 7, 22.15.26 (now 22.15.27)	The notice of physical withholding is issued to the market participant, but the persistence multiplier is applied broadly based on previous second notices issued to any resources under the same Market Control Entity for Physical Withholding. Without communicating with other market participants under the same control entity, participants are unable to verify that a persistence multiplier was correctly applied. As an example, if Gen A and Gen B are both under the same MCEPW, and Gen B receives a second notice of physical withholding that applies a persistence multiplier of 2, Gen B would need to verify that Gen A was previously issued a second notice in order to verify the accuracy of the persistence multiplier.	Details regarding assessments of physical withholding are confidential to the relevant market participant. As such, the IESO is prohibited under the market rules from providing this information to anyone other than the relevant market participant.
<b>66D</b>	OPG	Ch 7, 22.15.26 (now 22.15.27)	Finally, the section references the applicable market manual. A reference to Chapter 9: Settlements may also be appropriate in this situation.	The IESO will assess whether or not this language needs to be modified in the manner suggested as part of the drafting and stakeholder engagement associated with the settlements batch. If there are incremental updates needed for this section of chapter 7 in order to reconcile this section with the placement of content in the settlement batch between market manuals and market rules, the IESO will bring forward any applicable updates to stakeholders for

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				discussion and review with the settlements batch.
67	OPG	Ch 7, 22.16.3	The previous section, 22.16.2 states that hours will be assessed in two groups (roughly on-peak and off-peak), whereas 22.16.3 says "the IESO shall consider all the dispatch hours..." OPG suggests revising this section to "...all the dispatch hours determined pursuant to 22.16.2..."	This is already captured in section 22.16.2, which states:  "The <i>IESO</i> shall consider only the <i>dispatch hours</i> within each period when determining <i>intertie reference levels</i> for that period."
68A	OPG	Ch 7, 22.16.5	Does section 22.16.5 include all offer laminations submitted in a given hour, or only the highest? Lower laminations may be priced far below \$0/MWh, leading to unreasonably low "unweighted averages" of offers.	The calculation of energy offer intertie reference levels only consider the highest offer lamination associated with the relevant schedule. This section has been changed in response to your feedback to read as follows (changes in <b>bold</b> ):  "If a <i>market participant</i> had an <i>energy offer</i> that met the conditions in section 22.16.3 scheduled in the <i>day-ahead schedule</i> for at least one <i>dispatch hour</i> in 15 of the 90 days prior to a <i>dispatch day</i> , then its <i>day-ahead market energy offer intertie reference level</i> for a <i>boundary entity resource</i> for a particular <i>dispatch hour</i> on a particular <i>dispatch day</i> shall be the unweighted average of the <b>highest price offer lamination that was scheduled</b> contained in all <i>energy offers</i> submitted by that <i>market participant</i> for that <i>boundary entity resource</i> that met the conditions in section 22.16.3."

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				Similar changes have also been made to sections 22.16.11 and 22.16.17.
<b>68B</b>	OPG	Ch 7, 22.16.5	OPG would appreciate an example outlining this calculation and its application to tests for economic withholding. Ideally, the example would highlight an instance in which energy prices (and therefore intertie bids) in the 90 days previous were lower than the energy prices on the day being assessed (approx. \$15/MWh for the 90 days prior, followed by a high demand day with \$90/MWh energy prices).	<p>The IESO has recently published an example that is responsive to this request. While the offer prices and locational marginal prices do not perfectly match the ones requested here, the example illustrates the concepts in this request.</p> <p>The example calculation of the intertie reference level is found here:  <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2022/iesotp-20220215-mrp-intertie-reference-level-calculation.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2022/iesotp-20220215-mrp-intertie-reference-level-calculation.ashx</a>.</p> <p>The example of the assessment of intertie withholding that uses this intertie reference level is contained in the following presentation:  <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2022/iesotp-20220215-mrp-market-power-mitigation-batch-scenarios.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2022/iesotp-20220215-mrp-market-power-mitigation-batch-scenarios.ashx</a>.</p>
<b>69</b>	OPG	Ch 7, 22.16.15	In general, 22.16.15 does not distinguish between the two types of operating reserve eligible for intertie bids (30R and 10N).	Please see the response to OPG 60.
<b>70</b>	OPG	Ch 7, 22.17.2	Under what circumstances would the IESO cease to assess intertie economic withholding? Does this apply to the overall assessment framework, or only to a specific instance?	Please see the response to OPG 51 for an example of when the IESO should cease assessment of withholding.

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71	OPG	Ch 7, 22.17.7	The section implies that there is only one simulated as-offered energy locational marginal price, covering both the day-ahead and real-time markets. OPG suggests including the phrase "as applicable" to improve clarity.	This section has been changed in response to your feedback to read as follows (changes in <b>bold</b> ):  "An <i>energy offer</i> or <i>energy bid</i> submitted by a <i>registered market participant</i> for a <i>boundary entity resource</i> shall fail the impact test if the <i>boundary entity resource's simulated as-offered energy locational marginal price</i> is the lesser of 100% or \$50/MWh above the <i>simulated inertia reference level energy locational marginal price</i> in the <i>day-ahead market</i> or the lesser of 100% or \$50/MW above the <i>simulated inertia reference level energy locational marginal price</i> in the <i>real-time market</i> , <b>as applicable.</b> "
72	OPG	Ch 7, 22.18.3.1	This section should end with the word "or" to specify that meeting any of 22.18.3.1-3 is sufficient to trigger 22.18.3.	The terminal "or" in 22.18.3.2 addresses this comment.
73	OPG	N/A	How does the pre-dispatch calculation engine infer the thermal state of these resources? OPG notes that Table 3-6 of the Pre-Dispatch Calculation Engine design document identifies that Minimum Generation Block Down Time is used by the PD engine to infer a resource's thermal state. This role of MGBDT should be recognized in the term's definition.  Additionally, some resources could have a MGBDT greater than 24 hours for the warm or cold thermal states. How would	This question relates to information that will be addressed in the market and system operations batch of market rules and market manuals.

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			the PD engine infer the thermal state of these resources?	
74	OPG	Chapter 11: ramp hours to minimum loading point	OPG suggests expanding the definition of ramp hours to minimum loading point to reflect its role as dispatch data as per section 3.4.2.3 of the Offers, Bids, and Data Inputs Detailed Design Document DES-21 (i.e, the time between synchronizing and reaching MLP in hours).	The definition of <i>ramp hours to minimum loading point</i> has been updated and a new term, <i>ramp hours to minimum loading point reference level</i> has been added in response to your feedback.
75	OPG	Chapter 11: reference level	The definition of reference level, reference level value, reference quantity, and reference quantity value should include "as per the applicable market manual". OPG feels that referring to these parameters as "IESO-determined" undermines the bilateral, fair consultation process outlined in MM 14.2.	All reference levels and reference quantities are established in accordance with the applicable market manuals pursuant to section 22.1.1 and 22.6.1, respectively. Reference level values and reference quantity values are calculated based on reference levels and reference quantities, respectively.
76	OPG	N/A	Please confirm that Opportunity Costs are included in the scope of "short-run marginal cost".	Certain opportunity costs are eligible to be included in reference levels. Section 6.4 of Market Manual 14.2 describes which opportunity costs are eligible to be included in reference levels. As stated in that section "opportunity costs that are related to foregone energy or operating reserve revenues may be included in the energy offer reference level or operating reserve reference level for resources with intertemporal production limitations."

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77	Parry Sound	N/A	While abstract, is there any way to extend or communicate the impact of these rules on consumers? While I'm particularly focusing on residential, I'm also interested in other market consumers (Class A and B)	<p>The market power mitigation batch of market rules outlines the obligations and authorities associated with preventing market participants from taking advantage of market power that they might have, and is a form of consumer protection built into the market. Periods of participants exercising market power can occur when lack of competition in an area enables the possibility for participants to elicit unfair profits by raising their offers significantly above their short-run marginal costs.</p> <p>The exercise of market power reduces economic efficiency because prices impacted by market power do not reflect short-run marginal costs, resulting in inefficient outcomes in both the short- and long-run. These exercises of market power could lead to higher consumer costs associated with the commodity price of electricity (market clearing prices) as well as unnecessary uplift costs paid by Class A and Class B loads.</p>
78	Evolugen	N/A	The Technical Panel should actively review the Market Manuals in conjunction with the Rules to ensure consistency.	See response to OPG 40B.
79	Evolugen	Ch 7, 22.5.1 & 22.5.1.7	Requesting generators to update reference level data every two years or earlier at the decision of the IESO might not be feasible given our experience compiling such data during the engagement process. We recommend an update every five years, given that much	Section 22.5.1 and 22.5.1.7 do require generators to update reference levels with a certain regularity. Those sections prevent the IESO from changing a reference level unless at least 2 years have passed since the reference level was registered or last updated. This section protects market participants from



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			of the historical data requested by the IESO cover a five-year period.	having to update reference levels more frequently. It is important that the IESO has the ability to update reference levels to ensure that they are consistent with short-run marginal costs of a resource while at the same time balancing the administrative burden on market participants that could result from this process if it were triggered too frequently. The current limit of two years appropriately balances those risks.
80	Evolugen	Ch 7, 22.8.10 (now 22.8.12)	With reference to “[t]he IESO may not apply a settlement charge for subsequent reviews conducted as a result of the IESO rejecting a finding” We recommend changing “may not” to “shall not” to avoid generators being repeatedly liable for such review fees until the IESO approves the new reference levels.	This section has been changed in response to stakeholder feedback (changes in bold):  “22.8.12 The <i>IESO</i> <b>shall</b> not apply a <i>settlement</i> charge for subsequent reviews conducted as a result of the <i>IESO</i> rejecting a finding pursuant to section 22.8.8.”
81	Evolugen	Ch 7, 22.10.2.1 (now 22.10.2.2)	With reference to how a “narrow constrained area” would be designated. Under the proposal, a region in which one single interval (i.e., 8% of the hour) was import constrained for 4% of the hours in the previous 365 days would be deemed a narrow-constrained area, despite the fact that this region was constrained only 0.3% of the time. We recommend the IESO reconsider this criterion.	See response to OPG 40A.

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82	Evolugen	Ch 7, 22.15.8 (now 22.15.9)	With reference to “[t]he IESO shall calculate a resource’s simulated as-offered energy locational marginal price using the same inputs as those used by the relevant calculation engine to calculate that resource’s energy locational marginal price.” We request more openness and transparency on how this mechanism would be calculated due to the significant financial impacts it poses.	The IESO will provide the simulation tool with the inputs that were used to determine the schedules and prices on a particular dispatch day by the relevant calculation engines. The simulation tool will be run for the relevant hours to determine the simulated as-offered prices. To carry out impact tests, the IESO will compare the simulated as-offered results to the simulated reference quantity results, as found in sections 22.15.8 and 22.15.16. This ensures that the simulation will isolate the impact of the relevant MWs on the energy LMP or operating reserve LMP. This prevents external variables from affecting the outcomes of impact tests.
83	Evolugen	Ch 7, 22.15.10 (now 22.15.11)	With reference to “[t]he IESO may test an offer for operating reserve of a registered market participant for a resource for physical withholding of operating reserve if the resource...” Please clarify if these conduct tests would be applied to each of the three operating reserve markets.	Confirmed. Section 5.5 of Market Manual 14.1 describes how the conduct test for assessing physical withholding of operating reserve will account for the three operating reserve classes.
84	Evolugen	Ch 7, 22.15.10.3 (Now 22.15.11.3)	With reference to “the offer for operating reserve was below the resource’s reference quantity value and the operating reserve locational marginal price for the resource exceeded \$15/MW...” Please clarify whether generators are expected to submit OR-related reference level costs.	Section 22.2.1 and section 22.2.1.4 state that the IESO shall determine reference levels for financial dispatch data parameters, including one operating reserve offer reference level for each class of operating reserve for the resource, depending on the classes of operating reserve that the resource can provide, according to its registered data.

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				<p>Section 7.2.3 of Market Manual 14.2 outlines the eligible costs that can contribute to an operating reserve offer reference level for hydro resources. There are other sections in Market Manual 14.2 that describe the eligible costs that can contribute to operating reserve offer reference levels per technology type. Market participants are free to request an operating reserve reference level that is below their short-run marginal costs of supplying incremental operating reserve per section 22.2.3 of Chapter 7.</p>
<b>85A</b>	OPG	N/A	<p>In the February 15 Technical Panel meeting, the IESO explained that when any PQ pair ("tranche") of an offer fails the conduct test, the impact test compares the LMP associated with the original offer to the LMP calculated by replacing all offer tranches with the reference levels. If that offer fails the impact test, the engine replaces the entire set of offer prices with the reference level. Panel members asked the IESO to explain why every tranche is replaced, rather than only those that exceeded their corresponding reference level.</p> <p>The IESO subsequently sent out materials highlighting issues with the incremental approach suggested by the TP members. OPG acknowledges these issues, but argues that replacing every tranche with the reference levels could bias the impact</p>	<p>The IESO has proposed this design, and worked with stakeholders throughout the Detailed Design and Implementation processes to gain advice and insights to improve the design. The IESO firmly believes that this design is the most appropriate choice for the Ontario market, and does not agree with the characterization in the question.</p> <p>Market participants can find the rationale for this design decision (to replace the entire offer curve with the reference level when any tranche of the offer curve is too high above the reference level) here: <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2022/iesotp-20220215-mrp-market-power-mitigation-cover-memo.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2022/iesotp-20220215-mrp-market-power-mitigation-cover-memo.ashx</a>.</p>

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			test towards failure. For example, if every tranche in an offer was above its reference level, but within the applicable threshold, this offer would not be deemed an attempt at economic withholding. However, in the IESO's approach, if one of these tranches was outside the threshold, the impact test would compare the offer to the (possibly much lower) reference levels. This could result in very different outcomes if only the tranche that failed the conduct test was replaced during the impact test.	
<b>85B</b>	OPG	N/A	As a side note, please illustrate how offer replacement would function for hydroelectric resources whose reference levels are based on a single opportunity cost value, rather than an offer curve with multiple tranches.	The IESO has created a supplementary example in response to this comment that shows the assessment of the conduct test and subsequent substitution of a reference level with a single tranche. That will be posted with these responses to stakeholder feedback.
<b>86</b>	OPG	N/A	OPG stresses that because the outputs of the impact test can result in financial charges for MPs, it is very important that all MPs understand the detailed process by which the engine produces the simulated reference level LMPs. OPG acknowledges that mathematical formulae describing the calculations are included in the calculation engine appendices, but suggests that illustrative examples highlighting the inputs and outputs of the process should be provided to MPs.	The IESO has provided examples of ex-ante mitigation in a number of presentations. The examples that it presented to the technical panel in February 2022 are found here: <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2022/iesotp-20220215-mrp-market-power-mitigation-batch-scenarios.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/tp/2022/iesotp-20220215-mrp-market-power-mitigation-batch-scenarios.ashx</a> The examples that it presented to stakeholders as part of the review of the calculation engine draft market rules can be found here: <a href="https://www.ieso.ca/-/media/Files/IESO/Document-">https://www.ieso.ca/-/media/Files/IESO/Document-</a>

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				<a href="Library/engage/imrm/imrm-20220222-calculation-engine-presentation.ashx">Library/engage/imrm/imrm-20220222-calculation-engine-presentation.ashx</a>
<b>87A</b>	OPG	Ch 7, 22.8	Section 22.8.4.1 states that the IESO will provide the independent consultant with a "statement of issues to be reviewed". The form and content of this statement of issues should be agreed upon between the MP and the IESO prior to submission to the reviewer. MPs cover the cost of the review, and therefore have an interest in ensuring the statement of issues provided to the reviewer does not have excessive scope.	The IESO has amended certain sections, including this one, regarding the independent review process to provide more clarity. The new language (in <b>bold</b> ) in this section states that the IESO shall provide a consultant engaged on an independent review with: "a statement of <b>the applicable reference levels and reference quantities to be reviewed and the nature of such review</b> ". As part of the process to request the independent review process, the market participant will provide the language that describes the nature of the review via an IESO form that will be developed as part of solution development.
<b>87B</b>	OPG	Ch 7, 22.8	The market rules and manuals should detail the process by which the IESO selects an independent reviewer, specifically: <ul style="list-style-type: none"> <li>• how the IESO (and MPs) produces a qualified roster of independent reviewers,</li> <li>• how the IESO issues a request for proposals from the roster, and</li> <li>• how the IESO adjudicates multiple proposals to choose a reviewer.</li> </ul>	See response to APPrO 95.

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87C	OPG	Ch 7, 22.8	Please explain the expected path of recourse for an MP if no qualified reviewers respond to the request for proposals. OPG acknowledges that MPs can repeat the request after 60 days, but suggests that this path only addresses the case where scheduling conflicts prevented reviewers from responding. If instead, no reviewers responded because none had sufficient technical expertise to review the submission, the 60 day window is of little help.	In the unlikely event of the scenario posed in the question, Section 22.8.3 of Chapter 7 states that "if no responses to the request for proposal are received, the IESO shall register the reference levels and reference quantities communicated in the preliminary view." Section 3.3.1.3 of Market Manual 14.2 states that market participants may initiate the process to update their reference levels when one or more components of the reference level need to be updated. Should reference levels be registered when the independent review process was not completed due to a lack of respondents, market participants may initiate the process to determine reference levels at their convenience to attempt to update the relevant reference level component.
87D	OPG	Ch 7, 22.8	Finally, at the February TP meeting, the IESO commented that two reviewers could plausibly reach different conclusions given the same statement of issues. OPG is concerned that such uncertainty will lead to frequent recourse through the DRP.	In the IESO's opinion, it is possible for different experts to reasonably arrive at different determinations with respect to reference levels or reference quantities without any related market rule being misinterpreted or misapplied. Because the DRP only addresses disputes with respect to whether a market rule has been correctly interpreted or applied, the IESO does not believe that variance between determinations of independent reviewers and the IESO will frequently give rise to grounds for recourse through the DRP.

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88	OPG	Ch 7, 22.9	<p>The Market Control Entity framework is entirely new to MPs and its use in the physical withholding conduct test can significantly reduce the conduct test thresholds for any MP with multiple resources. Do other jurisdictions impose similar controls for associated participants? Please provide an overview of the IESO's rationale for the chosen MCE framework and the thresholds identified in 22.15.</p>	<p>The use of concepts similar to market control entities occurs in other jurisdictions. For example, the approach for assessing physical withholding in NYISO relies on a term, "affiliates", that is conceptually similar to the market control entity.</p> <p>The NYISO Market Administration and Control Area Services Tariff describes how affiliates are used in assessing physical withholding. Their use is similar to the way that the IESO will use market control entities – the conduct thresholds for determining physical withholding in NYISO are applied on the basis of offers from the resource and also on the basis of offers from the "Market Party and its Affiliates." As noted in response to stakeholder comments received during detailed design (comment id 180: <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrp-edd/edd-20201019-response-to-stakeholder-feedback.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrp-edd/edd-20201019-response-to-stakeholder-feedback.ashx</a>), These decisions are informed by the practices of other jurisdictions, and (where applicable) are consistent with those in the current ex-post local market power framework. The thresholds become less permissive as competition is more restricted.</p> <p>The rationale for these thresholds was one of the topics discussed during the January 23, 2020 technical session on physical withholding. The meeting summary of this technical session is available here: <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrp-edd/edd-20201019-response-to-stakeholder-feedback.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrp-edd/edd-20201019-response-to-stakeholder-feedback.ashx</a></p>

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				<p><a href="#">Library/engage/mrp-edd/edd-20200123-meeting-summary.ashx</a>.</p> <p>As part of detailed design feedback, the IESO received a comment that the conduct thresholds for physical withholding were too restrictive and would result in adverse outcomes. These conduct thresholds were adjusted in response and the current conduct thresholds appeared in the final version of the market power mitigation detailed design document.</p> <p>The IESO also responded to additional stakeholder comment related to the market control entity conduct thresholds for assessing physical withholding in December 2021. The response to this comment (comment id 102: <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/imrm/imrm-20211214-response-to-stakeholder-feedback.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/imrm/imrm-20211214-response-to-stakeholder-feedback.ashx</a>) provides further discussion on the conduct thresholds applied specifically within narrow constrained areas and dynamic constrained areas.</p>
<b>89A</b>	OPG	Ch 7, 22.15.21 (now 22.15.22)	22.15.21 states that the IESO shall calculate an alternate reference quantity if “the IESO determines” that the reference quantity in force at the time of the instance of physical withholding was incorrect. OPG suggests the rule as written does not provide sufficient guarantee that an MP’s request submitted pursuant to	Sections 22.15.22 and 22.15.24 have been changed in response to your feedback. The dispute resolution process is available to participants that believe the IESO has misapplied the market rules.



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			22.15.20 will be thoroughly and fairly considered by the IESO. The rules should include language that obligates the IESO to review the request and prove that the basis of the IESO's opinion is sound.	
<b>89B</b>	OPG	Ch 7, 22.15.21 (now 22.15.22)	OPG also notes that the process for requesting an alternate reference quantity is not subject to the independent review process, meaning MPs who disagree with the IESO's findings will need to find recourse in the Dispute Resolution Process. Please clarify why the alternate reference quantity process is not eligible for adjudication through the IRP. Further, to facilitate an efficient DRP, the rules should clearly outline the limited reasons the IESO may cite in its refusal of a request for alternate reference quantity (a listing of these reasons could take the same form as in 22.8.6, though the content would need to be updated).	<p>The independent review process affords market participants the ability to request review of a reference quantity or reference level as part of the registration process to determine reference levels and reference quantities.</p> <p>Requesting alternate reference quantity values is not part of the registration process of determining reference levels or reference quantities.</p> <p>The current draft market rules provide guidance as to how the IESO will respond to a given request for an alternate reference quantity value. Section 22.15.22 states that the IESO will determine if supporting documentation demonstrates that a resource was able to supply a different quantity of energy or operating reserve when assessing requests for alternate reference quantity value.</p>
<b>90</b>	OPG	N/A	OPG appreciates the IESO's presentation of example scenarios at the TP, and feels they highlighted important details. As a follow up, OPG requests a detailed example regarding mitigation of make whole payments for Non-Quick Start resources.	<p>The scenario discussed requests information regarding the process of settlement mitigation, including calculation of settlement amounts.</p> <p>This request will be addressed when the relevant information is available, as part of the stakeholder review of the settlement batch of draft market rules.</p>

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			<p>An illustration of the following example would be helpful in understanding mechanics of mitigation for NQS resources:</p> <p>Resource A is located in a BCA in the DAM. Resource A is scheduled by the DAM for its MGBRT hours. In pre-dispatch (after the resource has been committed but before it has reached MLP), the BCA becomes an NCA.</p> <p>Please identify which offers (energy, SUC and SNL) and hours will be assessed under the BCA constrained area threshold and which under the NCA thresholds. Assuming the resource is eligible to receive a make whole payment but fails the impact test for one or more hours in pre-dispatch, please describe the process of settlement statement/mitigation measures/penalties/guarantee payments.</p>	
91	APPPrO	MM 14.2, 3.4.1.2	<p>The IESO states it MAY initiate a reference level update if a reference level was determined or updated more than 2 years ago. Consequently, it is unclear if there will or will not be a formal review/need to resubmit workbooks every 2 years. Further clarity is requested on this point.</p>	See response to Evolgen 79.

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92	APPrO	N/A	Developing reference level workbooks is burdensome and time consuming and if there will be a formal requirement every 2 years to update the workbook this could become unwieldy.	See response to Evolugen 79.
93	APPrO	N/A	APPrO suggests that IESO review reference level setting & updating processes in an effort to be more efficient. Perhaps a "Lessons Learned" workshop post with the various technologies would help refine this process going forward.	The IESO will consider this feedback. The IESO encourages participants to continue to provide feedback through the one on one consultations as we have been able to already make several process improvements as result The IESO has published an "instructions and frequently asked questions document" ( <a href="https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/irl/irl-20210422-workbook-instructions-and-faq.ashx">https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/irl/irl-20210422-workbook-instructions-and-faq.ashx</a> ) that is a living document, that will continue to be updated on an ongoing basis, to this end.
94	APPrO	N/A	APPrO seeks to understand whether there is an obligation on a MP to inform the IESO of any changes to its costs (increase or decrease). The market manual is not clear that such an obligation exists.	Market participants are not obligated to inform the IESO of any such changes. Sections 3.3.1 and 3.4.1 of Market Manual 14.2 describes the situations under which market participants and the IESO respectively may initiate the process to determine reference levels and reference quantities.
95	APPrO	N/A	APPrO seeks to know if the IESO will issue the RFPs to a select few (from a pre-determined list) or more broadly? Will this prospective list be provided to market participants?	The IESO will establish a roster of independent consultants by issuing a publicly posted request for qualified vendors. The IESO intends to categorize the requirements according to technology type. Requirements underlying the procurement to secure the consultants that can

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			In APPrO's view, the independent reviewer must be knowledgeable/have expertise in the technology it will be reviewing. This suggests that a short list of 2 or 3 will be insufficient.	be used for the independent review process will be made available for input from stakeholders.
96	APPrO	N/A	Concerns arise if: (i) The RFP does is not successful (i.e., no one responds to the RFP) (ii) Respondents do not have the proper qualifications for the resource type they will be reviewing (i.e. have nuclear expertise but not hydro for a review of a hydro workbook)	The IESO will only issue a request for quotation for the review to consultants that have been qualified in the relevant categories to avoid the scenario contemplated in the comment.
97	APPrO	N/A	Will the MP be able to help frame the questions/determine the scope of the review?	See response to OPG 87A.
98	APPrO	N/A	As neither the IESO nor MP will be able to defend/argue their positions it is possible that the process could be ineffective. Assuming a reviewer comes up with a reference level lower than that put forward by the MP and it would have a significant impact – this would ultimately lead to DR – which can be lengthy.	<p>The effectiveness of the proposed Independent Review Process is not a function of its ability to facilitate opportunities for argument. The benefit of the Independent Review Process is that it avoids the need for argument and dispute all together.</p> <p>The Independent Review Process introduces a new option for Market Participants. Absent the Independent Review Process, Market Participants who disagree with an IESO determination with respect to reference levels or reference quantities, and who wish to seek an alternate determination, would be required to demonstrate that that the IESO has made an</p>

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				<p>error in its application of the relevant market rules. Technical and complicated disputes of this kind are inherently time consuming and costly. Under the proposed Independent Review Process, Market Participants may seek an alternate determination from an independent and qualified reviewer, without having to demonstrate that the IESO has made an error. The IESO proposes to obligate itself to adopt the independent determination of the reviewer, without argument, subject to limited exceptions.</p> <p>In the event a market participant believes that the IESO has misapplied the applicable market rules in setting reference levels or reference quantities, the market participant would continue to have access to the dispute resolution process set out under the market rules Chapter 3, section 2.</p>
99	APPrO	N/A	<p>Concern with the comment at the TP that 2 independent reviewers could come up with 2 different reference levels/recommendations. Does this suggest that, ultimately, this process is flawed and IESO should go back to drawing board and make this IRP process an "expedited DR process"?</p>	<p>Please see the response to OPG 87D.</p>

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100	APPrO	N/A	The current framework will likely lead to Dispute Resolution (DR) regardless, so it would be a shame to waste time on the IRP. IRP should allow the MP (and IESO) to defend and argue their positions on costs	Please see response to APPrO 98. In addition, please note that the Independent Review Process and the Dispute Resolution Process are not mutually exclusive, nor do they have the same scope or objects. The purpose of the Independent Review Process is to facilitate the determination of reference levels or reference quantities by a qualified and independent expert. The purpose of the Dispute Resolution Process is to determine whether a market rule has been misinterpreted or misapplied.
101	APPrO		Questions will likely arise respecting a consultant's independence. How will the MP and the IESO identify conflicts? If the IESO has all consultants engaged, will there be a sufficiently independent consultant?	Please see the IESO's response to H2O Power 8 in the previous set of responses to stakeholder feedback on these market rules and manuals. The IESO must adhere to the requirements for "Other Included Entities" in the Ontario Public Service Procurement Directive, which includes requirements regarding declaring conflicts of interest. These controls will ensure that any consultant procured is sufficiently independent of the IESO and the market participant. Requirements underlying the procurement to secure the consultants that can be used for the independent review process will be made available for input from stakeholders.

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102	APPrO		<p>IESO should provide a "Day in the Life" example. MPs would benefit if the IESO developed a couple examples: one with mitigation and one without mitigation but take it a few steps further than those provided at the TP</p> <p>IESO should start with a resource's DA offers with that resource being in a BCA and receiving a schedule based on that. Then after the DAM during PD the BCA changes to an NCA</p> <p>Which offers (energy, SUC and SNL) and hours will now be affected the NCA versus the BCA thresholds?</p> <p>This example should continue all the way through RT and resulting in presentation of a settlement statement/mitigation measures/penalties/guarantee payments.</p>	See response to OPG 90.