

Market Renewal Program Feedback Form

Market Renewal Implementation – Consolidated Draft of Market Rules and Market Manuals – September 1, 2022

Feedback Provided by:

Name: Kristine Liao

Title: Senior Market Specialist

Organization: Ontario Power Generation

Email: [REDACTED]

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Market Rules – Chapter 7 System Operations and Physical Markets

Section / Topic	Feedback
<p>Sections 22.13.1.2, 22.13.1.3 and 22.13.1.4</p>	<p>These three sections list the conduct thresholds for the Minimum Generation Block Down Time (MGBDT) in the three different hot/warm/cold thermal states.</p> <p>The MGBDT conduct thresholds listed in Sections 22.13.1.2, 22.13.1.3 and 22.13.1.4 are not in alignment with the MGBDT conduct threshold listed in Market Power Mitigation Design Document Version 2.0, Section 3.5 Table 3-4. Within Table 3-4, the MGBDT conduct threshold is the same for all three thermal states.</p> <p>Which conduct threshold(s) take precedence?</p> <p>Additionally, Table 3-4 includes “or submitted MGBDT across all thermal states more than 6 hours above the total reference levels across all thermal states.” OPG is unable to find this conduct threshold within the Market Rules. Can the IESO clarify this apparent discrepancy?</p>
<p>Sections 22.13.1.2, 22.13.1.3, 22.13.1.3.2, 22.13.1.4 and 22.13.1.4.2</p>	<p>Section 22.13.1.2: “<i>minimum generation block run-time</i> is more than the lesser of 100% or three hours above the <i>reference level value</i>;</p> <p>Sections 22.13.1.3, 22.13.1.3.2, 22.13.1.4 and 22.13.1.4.2: “<i>minimum generation block down-time</i> is below... <i>the reference level value</i> minus three hours for the...”</p> <p>The conduct threshold for MGBDT (hot) is the inverse of the conduct threshold conditions of MBGDT (warm) and MGBDT (cold), i.e., “more than” vs “is below”; “above” vs “minus”. What is the rationale for the inversion?</p>
<p>Section 22.13.1.10</p>	<p>Suggest revising: “<i>energy per ramp hour</i> is more than 50% above the upper bound <i>reference level value</i> or 50% below the lower bound <i>reference level value</i> for any thermal state; or”</p> <p>to:</p> <p>“<i>energy per ramp hour</i> is more than 50% above the upper bound <i>reference level value</i> or less than 50% below the lower bound <i>reference level value</i> for any thermal state; or”</p> <p>for improved clarity, as the original wording implies “more than 50% above the upper bound or more than 50% below the lower bound”, which can be inconsistent in determining how the lower bound is calculated.</p>

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Section 22.15.4	<p data-bbox="505 170 1455 281">OPG reads that Section 22.15.4 corresponds to Market Power Mitigation Detailed Design Version 2.0 Section 3.9.3. If this interpretation is correct, OPG requests clarity on the structure of Section 22.15.4.</p> <p data-bbox="505 327 1459 441">The wording within Section 22.15.4 infers that the IESO may test if [22.15.4.1] OR [22.15.4.2 AND (22.15.4.3 OR 22.15.4.4 OR 22.15.4.5 OR 22.15.4.6)] is satisfied.</p> <p data-bbox="505 487 1516 600">Market Power Mitigation Detailed Design Version 2.0 Section 3.9.3 infers that the IESO may test if (Section 22.15.4.1 OR Section 22.15.4.2) AND (22.15.4.3 OR 22.15.4.4 OR 22.15.4.5 OR 22.15.4.6) is satisfied.</p> <p data-bbox="505 646 1516 877">The confusion of the different conditions stems from the wording within Section 22.15.4.2: "...maximum resource active power capabilities, and the resource met at least one of the following conditions in the <i>day-ahead market</i> or the one-hour ahead run of the <i>pre-dispatch calculation engine</i>:" where the last "and" condition, along with the preceding comma, infers that Sections 22.15.4.3 to 22.15.4.6 are sub-conditions of Section 22.15.4.2.</p> <p data-bbox="505 924 1516 1037">Can the IESO please provide clarification to address the ambiguity stemming from the current wording? OPG suggests following the same section layout as in Section 22.15.11 for Section 22.15.4.</p>

Sections 22.15.4.3 to 22.15.4.6

Sections 22.15.4.3 to 22.15.4.6 outlines the four conditions for Market Control Entity (MCE) conduct test. All four sections begin with: "the energy offer was below the resource's reference quantity value **and** the resource..."

The "and" wording in Sections 22.15.4.3 to 22.15.4.6 implies that the resource must meet condition A and condition B to be included in the MCE conduct test. However, this wording would exclude any resources that offered above its reference quantity under constrained area condition in the MCE conduct test and would negatively bias the assessment outcome.

Taking the example from Market Manual 14.1 Section 5.4: consider Generator B. Suppose that Generator B is in an NCA, with a reference quantity of 100 MW and offered energy quantity of 101 MW. As Generator B is offering above its reference quantity, it would not meet the condition "the energy offer was below the resource's reference quantity value" as stated in Sections 22.15.4.3 to 22.15.4.6, and thus be excluded from the MCE conduct test. *Why would such a generator be excluded in the MCE's aggregated offered energy quantity?* Similar to the comment for Section 22.15.5, this exclusion unduly puts the MCE at a disadvantage for conduct testing.

OPG proposes the following revision to address this inequity in the MCE conduct test Market Rules:

22.15.4.2 had a day-ahead market or a real-time market locational marginal price for energy greater than \$25/MWh and the market control entity for physical withholding for that resource was designated as the market control entity for physical withholding for resources that can supply at least 10 MW of energy in aggregate based on those resources' maximum resource active power capabilities,

and the energy offer was below the resource's reference quantity value, and the resource met at least one of the following conditions in the day-ahead market or the one-hour ahead run of the pre-dispatch calculation engine:

22.15.4.3 ~~the energy offer was below the resource's reference quantity value and~~ the resource was part of a narrow constrained area where at least one of the transmission constraints that defines that narrow constrained area was binding;

22.15.4.4 ~~the energy offer was below the resource's reference quantity value~~ and the resource was part of a dynamic constrained area where at least one of the transmission constraints that defines that dynamic constrained area was binding;

Section / Topic	Feedback
	<p data-bbox="602 205 1503 317">22.15.4.5 the energy offer was below the resource's reference quantity value and the resource had a positive congestion component greater than \$25/MWh; or</p> <p data-bbox="602 365 1511 554">22.15.4.6 the energy offer was below the resource's reference quantity value and the resource could have met incremental load within Ontario when the conditions for testing for global market power for energy price impact set out in Appendix 7.1A and Appendix 7.2A were met.</p> <p data-bbox="506 604 1487 751">The repositioning of "and the resource met at least one of the following conditions in the day-ahead market or the one-hour ahead run of the pre-dispatch calculation engine:" is in alignment with the format used in Section 22.15.11.2 for MCE OR conduct test.</p>

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Section 22.15.5	<p>Section 22.15.5 provides the details for ex-post mitigation testing for resources that share an MCE. The market rules for testing the MCE resources correspond to the examples provided in Market Manual 14.1 Section 5.4. There is discrepancy in the conditions laid out in the Market Rules and the information provided in the example.</p> <p>Sections 22.15.5.1.2 and 22.15.5.2.2 states that “the registered market participant for that resource and every other resource with which that resource shares a market control entity for physical withholding [in the same constrained area condition]...” This implies that the aggregated reference quantity value used for physical withholding assessment should be based upon the offered capacity of all resources controlled by the same MCE that are under the same constrained area condition.</p> <p>This contrasts with what is presented in Market Manual 14.1 Section 5.4, where the example for the MCE conduct test specifically excluded the resources that had failed the individual conduct test that triggered the subsequent MCE conduct test (i.e., Generator C and Generator H). This exclusion is not reflected in the Market Rules Section 22.15.5.</p> <p>Regardless of failure of the individual conduct test, all the resources in the same constrained area condition and sharing the same MCE should be included in the aggregated total for the MCE test, not excluded. The exclusion presented in the Market Manual example can lead to potential false positives in the mitigation assessment, as the aggregated total of all generators might not have failed the MCE conduct test, notwithstanding the offered quantities and reference quantities used in the example. The exclusion presented in the MCE conduct test example puts the MCE at a pre-emptive disadvantage by excluding physical quantities that impact the outcome of the assessment.</p> <p>For reference, Market Power Mitigation Detailed Design Version 2.0 Table 3-27 does not give specific details regarding resource aggregation for MCE conduct testing.</p>

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<p>Sections 22.15.11.3 and 22.15.11.4</p>	<p>Sections 22.15.11.3 to 22.15.11.4 outline the two conditions for MCE OR conduct test. Both sections begin with: “the offer for operating reserve was below the resource’s reference quantity value and the resource...”</p> <p>Similar to the comment for the energy conduct test above (Sections 22.15.4.3 to 22.15.4.6), the current format of the Market Rules unnecessarily puts the MCE on a negatively biased position regarding OR conduct test for physical withholding. Along with the similar rationale above, OPG proposes the following changes to Sections 22.15.11.2 to 22.15.11.4:</p> <p>22.15.11.2 has a day-ahead market or a real-time market locational marginal price for operating reserve greater than \$5/MW and the market control entity for physical withholding for the resource was designated as the market control entity for physical withholding for resources that can supply at least 10MW of operating reserve in aggregate based on those resources’ maximum resource active power capabilities and maximum registered dispatchable loads,</p> <p>and the offer for operating reserve was below the resource’s reference quantity value, and the resource meets at least one of the following conditions in the day-ahead market or the one-hour ahead pre-dispatch run of the pre-dispatch calculation engine:</p> <p>22.15.11.3 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; or</p> <p>22.15.11.4 the offer for operating reserve was below the resource’s reference quantity value and the resource was located in a reserve area where the value of a minimum constraint for a class of operating reserve that the resource is eligible to offer was greater than 0 MW.</p>

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Sections 22.15.13.1 and 22.15.13.2	<p>Sections 22.15.13.1 and 22.15.13.2 correspond to Market Power Mitigation Detailed Design Version 2.0 Section 3.9.4 and references are made to Sections 22.15.11.1 and 22.15.11.2, respectively. However, Sections 22.15.11.1 and 22.15.11.2 outlines a resource’s Locational Marginal Price and capacity, and not the global and local operating reserve market power conduct conditions. The global and local operating reserve market power conduct conditions are listed in Sections 22.15.11.3 and 22.15.11.4.</p> <p>Should Sections 22.15.13.1 and 22.15.13.2 be referencing Sections 22.15.11.3 and 22.15.11.4, so that the linkage is to the definitions of global and local operating reserve market power conditions, respectively? This would bring the referencing in Sections 22.15.13.1 and 22.15.13.2 to be in alignment with the referencing in Sections 22.15.5.1 and 22.15.5.2.</p>
Section 22.15.13.1.2	<p>“... that <i>resource</i> and at least one other resource and every other <i>resource</i> with which...”</p> <p>The term “at least one other resource” is used in this section, but does not appear in other similar sections, such as in Section 22.15.13.2.2. What is the rationale for the addition of this condition in Section 22.15.13.1.2?</p>

General Comments/Feedback

General question:

1. When resources are aggregated for MCE conduct testing based on constrained area, would the resources be aggregated from the same constrained area (i.e., the area where the initial resource failed the individual conduct test and triggers the MCE conduct test), or would the resources be aggregated globally based on the same constrained area type? Would the aggregation methodology change depending on the type of constrained area?
 - a. For NCA resource aggregation, would the resources need to be within the same NCA area and controlled the same MCE, or would aggregation apply to all resources within all NCA areas controlled by the same MCE? Is the reference quantity aggregation for NCA MCE conduct test global or local?
 - b. For resources located in different DCAs triggered by independent system constraints, e.g., DCA-1 triggered by QFW congestion and DCA-2 triggered by FNFS congestion, would the resources within DCA-1 and DCA-2 be aggregated together under a single MCE conduct test? Or would there be independent MCE conduct tests performed for DCA-1 and DCA-2?
 - c. Would the BCA MCE conduct test aggregation be applied globally?

There are inconsistencies between the Market Power Mitigation Design Document Version 2.0, Market Manual 14.1, and Market Rules Chapter 7 in the application of mitigation testing conditions, as well as inequities applied to market participants in the case of MCE mitigation testing. It is important that these inconsistencies and inequities are addressed prior to the finalization of the Market Rules to ensure consistency and fairness in the Market Power Mitigation framework. This would be in the best interest of both market participants and the IESO.

OPG thanks the IESO for this opportunity to provide feedback on the Consolidated Draft of Market Rules and Manuals.