

Stakeholder Feedback and IESO Response

Improving Accessibility of Operating Reserve webinar – March 25, 2022

Following the March 25, 2022 engagement webinar on Improving Accessibility of Operating Reserve, the Independent Electricity System Operator (IESO) received feedback from participants on the proposed Market Rule amendments.

The IESO received feedback from:

- [Northland Power](#)
- [Ontario Power Generation](#)

The presentation materials and stakeholder feedback submissions have been posted on the [Improving Accessibility of Operating Reserve webpage](#). Please reference the material for specific feedback as the below information provides excerpts and/or a summary only.

Notes on Feedback Summary

The IESO appreciates the feedback received from stakeholders. The IESO has provided a summary below, which outlines specific feedback or questions for which an IESO response was required at this time.

Proposed Market Rule Amendments

The feedback submission from Ontario Power Generation (OPG) included comments on the Market Rule amendments. These points are included in the tables below.

Chapter 7, Sec. 7.4.3A

Feedback	IESO Response
<p>OPG has no major concerns with the removal of Section 7.4.3A due to de-scoping of OR dispatch tool change provided the removal of this section has no change / impact on the determination of OR activation compliance of a resource / compliance aggregate compared to how it is currently defined. For example, consider a resource that is scheduled to provide +30 MW of standby OR, but the resource is outputting higher than its energy schedule (within its dispatch deadband). As a result, upon receiving an OR activation, the resource is only able to increase output by 20 MW. However, the resource meets its dispatched ORA target.</p> <p>Please confirm:</p> <ol style="list-style-type: none"> 1. If similar to today, the OR activation target will be calculated based on the current energy dispatch, rather than the resource output (i.e. in the above example, +30 MW above energy dispatch, not +30 MW above metered output). 2. If the resource meets the OR activation dispatch target, the resource will be deemed to have met its OR activation, regardless of the incremental MW supplied (in the above example, if the resource meets the target by injecting an additional 20 MW, the resource is in compliance with its activation). 3. Which claw-backs / charges would be applied to the resource in the example? Would the claw-backs / charges be different if the resource had not been activated for OR? 	<ol style="list-style-type: none"> 1 & 2. The IESO can confirm that the removal of the section 7.4.3A due to the de-scoping of the previously proposed changes to the operating reserve dispatch tool does not change the current rules surrounding operating reserve activation compliance. 3. The settlement claw-back applies to individual resources – or compliance aggregates - whenever its operating reserve schedule exceeds the amount of operating reserve that it is capable of providing. In the example provided, since the operating reserve schedule of 30 MW is greater than the 20 MW of reserve energy that the resource has available, there would be a settlement claw-back for the 10 MW of inaccessible operating reserve.

Feedback	IESO Response
	The settlement claw-back does not apply when operating reserve has been activated.
<p>In the absence of OR dispatch tool modification, which types of meters will be used to measure real-time resource output in the determination of accessible OR: operational meter or revenue meter? It is important to note that not all stations have oversight of revenue meters in the control room.</p> <ol style="list-style-type: none"> 1. If revenue meter data is not available at a station, how would the IESO calculate the accessible OR without unnecessarily burdening/penalizing MPs? 2. If the operational meter can act as a surrogate to the revenue meter, how would the IESO address instances when the ORA target may result in discrepancies in settlement for the interval(s) following the end of the activation? 	Data from revenue meters will be used to determine the settlement claw-back for inaccessible operating reserve. The relevant calculations will not occur in real-time. They will occur once the IESO has access to the relevant revenue meter data.

Chapter 7, Sec. 7.4.2.1

Feedback	IESO Response
<p>The IESO states that "A market participant shall be subject to non-accessibility charges...during any interval in which it is scheduled to provide operating reserve but is not dispatched to increase energy generation (or load reduction)."</p> <p>Take the example of a compliance aggregate with two resources. Both resources are scheduled for OR. Resource #1 is activated for 10 MW of OR but only provides 9 MW. Resource #2 is not activated but responds by increasing output by 1 MW to satisfy the ORA target for the compliance aggregate.</p> <p>In the instance above, does the OR non-accessibility charge apply to resource #2, which is in the same compliance aggregate as resource #1 but is not activated? OPG believes that the non-accessibility charge should not be applied to resources within the same aggregate as these</p>	<p>The settlement claw-back - operating reserve non-accessibility charge as described in this comment - does not apply when operating reserve has been activated. It is determined on the basis of whether a resource (or compliance aggregate) has reserve energy equal to, or greater than, its operating reserve schedule.</p> <p>The IESO will only apply the settlement claw-back to a compliance aggregate if the resources making up the compliance aggregate failed to maintain adequate unused capacity in order to meet the scheduled operating reserve obligations.</p>

Feedback	IESO Response
other resources may be used to assist in reaching the ORA target.	

Chapter 7, Sec. 7.4.6

Feedback	IESO Response
<p>The current language in 7.4.6 broadly refers to “inappropriate” congestion management settlement credits (CMSCs). In the May 28, 2021 stakeholder engagement presentation the IESO defined two instances for claw-back:</p> <ul style="list-style-type: none"> • Unwarranted OR CMSC arises when a resource’s accessible OR is different from the constrained OR schedule; • Unwarranted Energy CMSC arises when the ORA dispatch signal is revised to account for actual output/consumption of a resource at the time of the ORA. <p>OPG requests the rationale for using different terminology in the May 28, 2021 presentation versus in 7.4.6, i.e. unwarranted versus inappropriate.</p>	<p>‘Inappropriate CMSC’ is consistent with language used in the Market Rules. There is no specific rationale for the use of the word ‘unwarranted’ in the presentation. The choice of wording in the presentation should have more precisely reflected that used in the Market Rules.</p>

Chapter 9, Sec. 3.4

Feedback	IESO Response
<p>OPG would like to highlight that a resource’s AQEI and MAX_CAP parameters are calculated in different units and with different levels of precision. Specifically, AQEI, as defined in Chapter 9, Section 3.1.9 is presented in MWh, whereas MAX_CAP and other parameters such as AQOR have been defined in “allocated” MW in “metering interval ‘t’”. As the calculations need to be performed in the same units, OPG requests clarity on the computational aspect of ensuring unit consistency.</p>	<p>The maximum capability value used by the settlement systems is normalized to an interval level value (Max_Cap divided by 12); thereby representing the maximum capability value to the same or higher level of precision (decimal places) as AQEI. Consistent with current practice for all charges/payments, the resulting claw-back computation will be rounded off to the nearest cent.</p>
<p>Secondly, based on settlement data, AQEI is presented to three significant digits whereas other components in this calculation are generally presented to a single digit of precision. OPG submits that the higher level of precision of AQEI</p>	<p>See above response.</p>

Feedback	IESO Response
<p>will lead to many, insignificant computations of a charge that will be burdensome from a settlement perspective and requests that the IESO implement measures to prevent this occurrence.</p>	
<p>OPG notes three instances of language used to define an activation:</p> <ul style="list-style-type: none"> • Chapter 7, Section 7.4.2.1 uses “not dispatched to increase energy generation (or load reduction) pursuant to section 7.4.3”. • Chapter 9, Section 3.4.2 states “not dispatched to increase energy generation (reduce load) pursuant to section 7.4.3 of Chapter 7”. • Chapter 9, Section 3.4.2.1 states “not dispatched to increase energy generation (or reduce load)”. <p>OPG requests that the IESO align all points above with the language used in Section 7.4.2.1, which identifies that the exclusion is pursuant to Section 7.4.3.</p>	<p>The IESO will adjust the amendment proposal to reference 7.4.3 in chapter 7, section 7.4.2.1 as well as chapter 9, section 3.4.2 and 3.4.2.1.</p>
<p>OPG notes that Section 3.4.2.1 is applicable to “aggregated facilities”, further clarified to include loads as per the term “reduce load”. The computation of TAOR_CA is strictly based on AQEI for “aggregated generators” only.</p>	<p>As noted by OPG, TAOR_CA is only applicable for aggregated generation facilities. The wording “reduce load” has been removed from chapter 9, section 3.4.2.1.</p>
<p>In Section 3.4.3.2, the IESO proposes an equation to calculate the “Total inaccessible operating reserve for generators”. Please expand this equation to show the calculation for each class of OR in the term ORCF.</p>	<p>IESO will expand the relevant equation to show the calculation for each class of operating reserve.</p>
<p>The following are editorial suggestions:</p> <ul style="list-style-type: none"> • Section 3.4.2.1, defines R as “all class of operating reserve”. OPG proposes that the IESO change this language to “all classes” to be consistent with Section 3.4.2 • Section 3.4.2.1, OPG notes the reference to “de-rates generation capacity”. (OPG proposes that the IESO removes the “s”.) 	<p>The editorial suggestions identified by OPG in the proposed chapter 9, section 3.4.2.1 will be reflected in the proposed amendments.</p>

General Comments/Feedback

Feedback	IESO Response
OPG requests to have transparency of all settlement-ready data, including the parameters and method behind calculating a resource's MAX_CAP value. OPG also requests that the IESO to provide feedback on the ability to separate the calculations for offers and real-time derates/constraints for settlement purposes.	<p>The IESO is able to provide the variables used to determine the settlement claw-back amount each interval, including the MAX_CAP value used.</p> <p>The MAX_CAP value itself is determined as the lesser of the MWs offered and any submitted derates or other resource specific constraints affecting the resource's maximum output.</p>

General Comments/Feedback

Both stakeholder submissions included general comments, which are detailed in the table below.

Feedback	IESO Response
<p>Northland Power:</p> <p>Will compliance be assessed in line with the <i>Compliance with Dispatch Instructions Issued to Dispatchable Facilities</i> Interpretation Bulletin issued by the Market Assessment and Compliance Division (MACD) of the IESO in 2009?</p> <p>Section 2.1 of the Interpretation Bulletin states the following: "Activation of Operating Reserve for Individual Resources Dispatch instructions for energy that are flagged by the IESO as activation of operating reserve are accompanied by an "ORA" flag. Failure to comply with these dispatch instructions occurs when a dispatchable generation facility fails to be at or above the dispatch instruction within the timeframe specified by the operating reserve market for which the dispatchable generation facility was scheduled."</p> <ul style="list-style-type: none">• For example, if a dispatchable generation facility was offline and then received an ORA dispatch for 10-minute operating reserve (i.e., ORA), would the facility have to be at or above the ORA dispatch instruction 10 minutes after receipt? In	<p>This initiative does not alter any existing rules related to compliance with dispatch instructions.</p>

Feedback	IESO Response
<p>this example if the ORA dispatch was to 30 MW, it would have to be at or above 30 MW exactly 10 minutes after receiving the ORA?</p> <ul style="list-style-type: none"> • Further, if a dispatchable generating facility was online and scheduled for 20 MW in the energy market, but was generating at 22 MW, at which point it received an ORA dispatch to 30 MW, would the generating facility be deemed compliant with its ORA obligation if it was generating exactly 30 MW at 10 minutes following the receipt of the ORA instruction? • What is the expectation on Market Participants to assess compliance with an ORA in real time if the IESO uses operational meters and assesses compliance down to the second when ORA dispatches do not provide the exact second that an ORA was sent/received? 	
<p>OPG:</p> <ol style="list-style-type: none"> 1. Please clarify if the de-scoping of the change to the OR dispatch tool (i.e. removal of proposed Chapter 7 Section 7.4.3A) have any impact on the proposed Market Rule amendments outlined in the May 28, 2021 Stakeholder Engagement session for unwarranted CMSC and OR settlement claw-backs. 2. Is the go-live date of this engagement November 1, 2022, to be implemented in combination with the Replacement Settlement System project? 3. OPG previously proposed additional OR scheduling parameters, such as the "Energy plus OR Limit" parameter for hydro resources, to help address OR scheduling issues for both hydro and gas plants for Market Renewal. IESO feedback was "These comments should continue to be submitted to the relevant MRP engagement." Considering the delay to the current stakeholder engagement and the Market Renewal in-service date (Nov 2023), OPG is of the view that this proposal should be 	<ol style="list-style-type: none"> 1. The de-scoping of the change to the operating reserve dispatch tool does not have any impact on the proposed market rule amendments for inappropriate CMSC and OR settlement claw-backs. 2. Yes, the market rules associated with this initiative are scheduled to be implemented in combination with the Replacement Settlement System project. 3. Changing how operating reserve is scheduled is not within scope of this initiative. The proposed market rule amendments associated with this initiative are intended to ensure that operating reserve payments are made for scheduled operating reserve that was accessible.

Feedback	IESO Response
<p>considered within this stakeholder engagement as well as in the Market Renewal Program. This consideration is important because the changes proposed in this engagement and in the Market Renewal Market Power Mitigation framework have significant impact on hydro resource OR availability, and should not be evaluated independently of each other. OPG requests the IESO to assess and provide feedback on the use of the proposed "Energy plus OR Limit" parameter for the improvement OR accessibility.</p>	