

April 30, 2020

Via Email: engagement@ieso.ca

Independent Electricity System Operator
1600, 120 Adelaide Street
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Re: Independent Electric System Operator (“IESO”) – Improving Accessibility of Operating Reserve (“OR”)

On March 30th, the IESO hosted a webinar providing further details of its draft design to improve accessibility of OR. Details of an "after-the-fact" settlement claw-back for inaccessible OR were presented and changes to OR activation (“ORA”) performance measurement criteria were proposed.¹ Capital Power provides the comments below in response to the IESO’s request for stakeholder feedback. These comments are supplemental to those previously provided to the IESO on January 10, 2020.²

A. Proposed settlement claw-back must align with existing dispatch compliance requirements

The IESO is proposing changes to OR settlement that would claw-back standby payments when a generating facility’s remaining capability above its output level during an interval ("headroom capacity") amounts to a lower volume than the OR dispatch scheduled in that period.³ Capital Power previously suggested that a deadband for accessible OR be considered as this would provide generators the ability to manage the compliance of concurrent energy and OR dispatches.⁴ In response, the IESO noted that this would work against the objective of improving OR accessibility and may not drive the desired behaviour.⁵ Capital Power respectfully disagrees and explains in detail below.

The proposed claw-back approach penalizes market participants despite complying with well-established requirements regarding dispatch instructions

Chapter 7 of the IESO’s *Market Rules* requires market participants to follow IESO dispatch instructions. The criteria for determining compliance with this requirement have been in place since 2009 and includes a compliance deadband that allows output to vary from the dispatch level within a given range.⁶ This tolerance is necessary to account for operational deviations and output variances that periodically occur. However, the IESO-proposed OR settlement claw-back is incompatible with the current dispatch instruction rules and its compliance criteria.

¹ IESO March 30, 2020 webinar presentation - “Improving Accessibility of Operating Reserve,” online: <<http://ieso.ca/-/media/Files/IESO/Document-Library/engage/or/or-20200330-presentation.pdf?la=en>> [IESO March 2020 Presentation].

² Capital Power Stakeholder Feedback Form to IESO December 10, 2019 Webinar, online: <<http://ieso.ca/-/media/Files/IESO/Document-Library/engage/or/or-20200110-capital-power.pdf?la=en>> [CPC December 2019 Comments].

³ IESO March 2020 Presentation, *supra* note 1 at slides 17 and 19 through 22.

⁴ CPC December 2019 Comments, *supra* note 2 at page 3.

⁵ IESO March 2020 Presentation, *supra* note 1 at slide 13.

⁶ IESO Market Rule Interpretation Bulletin, IMO_MKRI_0001 Version 6.1 (effective June 30, 2009). For some generators, this range is ± 15 MW and is applicable in the illustrative examples referenced in this submission.

Consider the IESO's 150 MW generator example from its March 30th presentation.⁷ Recall that its entire capability is being dispatched – 100 MW energy and 50 MW OR dispatches. The IESO examined two scenarios under these dispatch instructions: one where the facility is operating at 110 MW and another at 90 MW. In both cases, the generator is operating within its energy dispatch compliance deadband (± 15 MW or a range of 85 MW and 115 MW). Several conclusions can be drawn in assessing the proposed settlement claw-back with the existing compliance requirements.

- The upper range of the compliance deadband (100-115 MW) is effectively removed as any output in this region would lead to a settlement claw-back. This stricter dispatch tolerance reduces operators' ability to manage normal output variances centered around the energy dispatch level.
- Stricter tolerance does not drive desired behaviour. Instead, it incents production below energy dispatch instructions to mitigate OR non-compliance and potential settlement claw-back.
- Claw-back risk and increased compliance requirements could lead to reduced offer volumes in the OR market going-forward putting upward pressure on prices and system costs.

These conclusions clearly illustrate how the proposed claw-back is misaligned with the existing compliance requirements and works against the objectives of this initiative. Therefore, it is strongly recommended that the IESO reconsider its proposed design.

Recommendation: Revise the proposed “after-the-fact” settlement claw-back to account for the compliance deadband. Claw-backs should only apply when production rises beyond the upper deadband limit. Exceptions should also be granted if, in response to an activation, the directed incremental energy was delivered in full. In both cases, reasonable compliance is demonstrated. These changes respect the compliance deadband, do not create the unintended consequences above and do not require tool changes since it could be incorporated as part of settlement.

B. ORA performance measurement criteria must be applied consistently & not require delivery beyond what was offered or is physically possible

The IESO proposes changes to its ORA performance measurement criteria that would require market participants to “...provide both the incremental energy and meet their ORA dispatch targets (at or above the targets for generators and at or below the targets for DLs) to be compliant.”⁸ Capital Power does not support the proposed revision for reasons outlined below.

Proposed ORA performance criteria combined with claw-back could require delivery of more incremental energy than was offered by the market participant or is physically possible by the facility

Consider again the IESO example. When the generator's output is at 90 MW, it would receive full payment for the 50 MW OR dispatch and is in full compliance with its energy dispatch. However, the IESO's proposed change to ORA performance would require the generator to produce 150 MW and deliver 60MW of incremental energy to be compliant. This is 10 MW more than had been offered and for which some facilities may not be able to provide in 10 minutes.⁹ Instead, the generator should only be expected to provide the 50 MW of incremental energy that it originally offered.

The same generator, now at 110 MW, would be clawed back 10 MW for the OR dispatch prior to an ORA yet the IESO is proposing that it still be required to provide an incremental 50 MW of energy by producing at 160 MW. Given the 150 MW maximum capability however, only an incremental 40 MW may be safely provided. This would be considered non-compliant under the proposed design and could potentially lead to MACD sanctions. If the generator is being clawed back for 10 MW prior to the ORA, it should only be required to deliver 40 MW of incremental energy. On the other hand, if the generator delivers the full 50 MW of incremental energy, it should not be subject to any claw-back.

⁷ IESO March 2020 Presentation, *supra* note 1 at slides 37-49 regarding illustrative examples for a generator.

⁸ *Ibid* at slide 30.

⁹ If the example generator has a maximum 5 MW/min ramp rate across its entire operating range, the maximum OR volume it could provide is 50 MW. Requiring the generator to deliver any more than this would violate its physical operating capability.

Not only are the proposed ORA performance measurement criteria applied asymmetrically, it presents impossible performance requirements with little to no tolerance – one that could only be managed by offering less OR volumes. Less OR in the market clearly works inapposite to the objectives of this initiative.

Recommendation: Performance should be measured and applied symmetrically. The IESO should assess compliance by evaluating the instantaneous output at the time the ORA was issued and after ten minutes. The resource should be deemed compliant if this amount is equal to or greater than the ORA volume.

C. MACD response to contraventions should be commensurate with the degree of the infraction

Capital Power is not opposed to revenue claw-backs for inaccessible OR or failed ORAs. However, the design of such mechanisms must respect physical operating constraints and provide market participants reasonable means to achieve compliance. It is also bears repeating that these failures may occur, for example, as a result of a force majeure or an unplanned operational event. Assessing any further penalty beyond claw-backs could disincite participation in the OR market and/or increase the cost of doing so.

Recommendation: Market participants should not be subject to a non-compliance investigation and sanctions from MACD beyond IESO claw-backs, particularly if the IESO had been properly notified by the market participant of the operational deviation and all other reasonable steps to demonstrate compliance were taken.

Summary and Next steps

There are significant issues with the elements being proposed as part of the IESO's efforts to improve OR accessibility. These can be addressed by the recommendations provided above. However, the issues identified are driven, in part, by current tool limitations and should be further considered as part of the MRP process given interrelated design elements that could be impacted.

Capital Power appreciates the IESO's ongoing efforts to communicate with and engage stakeholders regarding potential market design changes. Please contact the undersigned should the IESO have any questions or comments regarding the feedback provided.

Sincerely,



Santi Churphongphun

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Capital Power