

Feedback Form

Resource Adequacy webinar – January 26, 2021

Feedback Provided by:

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Following the January 26, 2021 engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the following items discussed during the webinar. Background information related to these feedback requests can be found in the presentation, which can be accessed from the [engagement web page](#).

Please submit feedback to engagement@ieso.ca by February 17, 2021. If you wish to provide confidential feedback, please submit as a separate document, marked "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

Feedback Requested

Topic	Feedback
Does the proposed process to set acquisition targets and select competitive mechanisms align with stakeholder needs?	
Is there any additional information that the IESO should consider including in the Annual Acquisition Report (AAR) to help participants make investment decisions?	
What are the timing considerations from a stakeholder perspective with respect to the AAR?	
Are there any concerns with the proposed Capacity Auction enhancements?	

General Comments/Feedback

- Changes and causes of the changes in grid-connected demand shape (due to increasing embedded generation, storage, demand management, etc.) should be available to the public, especially the shift of the peak hours and summer-peak season. For example: solar capacity and peak contribution should be identified, especially the diminishing peak capacity contribution for incremental solar capacity. (e.g. Embedded solar generation pushes the grid-connected demand peak from mid-day to late afternoon/early evening). When the peak is pushed to the hours that solar cannot generate, there is no more peak capacity contribution for additional solar. Also, summer peak is pushed to later in the season.
- In determining the acquisition targets in the AAR, special consideration must be given to storage and its peak contribution, as there are diminishing returns as more storage is added to the system. In 2006, the maximum differential between the daily minimum and maximum demand was close to 11,000 MW, which was the highest in history. This is the amount of flexible generation that has to be online during the peak of the day but off-line at night. Solar compresses the on-off peak differential and the addition of solar generation over the last decade reduced this differential by about 1000 MW. This diminishes the value of energy storage and consequently batteries have diminishing returns. Peak contribution of batteries flattens with increased installed capacity. As we add capacity, shorter duration batteries offer

much less effective capacity. OPG estimates that there is a 3000 MW impasse above which batteries are ineffective at reducing peak demand. This is a consequence of having to charge the battery off peak. A longer battery life (longer than 4 hours) would be required to mitigate the peaking problem.

- Similar to the bullet above, the Unforced Capacity (UCAP) amount will also have diminishing returns. This will be further complicated by the fact that what is purchased in the capacity auction might be stated or displayed differently from what appears in the APO.
- OPG would like additional details on the different UCAPs proposed for each of the different technologies. Will the numbers change and if so, what is the methodology used to calculate these UCAP amounts?
- OPG would like to request additional information on the concepts presented to the IESO Board to receive approval / direction for the Resource Adequacy Framework. More specifically, which mechanisms were discussed for the short, medium and long-term time frames.
- Is the plan for the Annual Acquisition Report to publish capacity targets for each timeframe? Is the capacity amount pre-set and predetermined and will there be an opportunity to consult and provide modifications to these amounts?
- Is the IESO considering obtaining an assessment by a third party to ensure that the acquisition target share is reasonable? This was also a recommendation made by the MSP (see recommendation number 3-6 from MSP Report Number 34, released February 11, 2021).
- The focus of the Annual Acquisition Report should be at least five years out and not just three years. As a minimum the last two years of the five could be identified as indicative. A report that goes out to the three year timeframe will not appropriately capture shortfalls such as Pickering retirement, for example. A three year commitment does not provide sufficient time to plan for a major investment.