

Power Workers' Union Submission on the IESO's October 2021 Resource Adequacy Engagement

November 12, 2021

The Power Workers' Union (PWU) is pleased to submit comments and make recommendations to the Independent Electricity System Operator (IESO) regarding its October 21st Resource Adequacy Engagement webinar. The PWU remains a strong supporter and advocate for the prudent and rational reform of Ontario's electricity sector and recognizes the importance of planning for low-cost, low carbon energy solutions to enhance the competitiveness of Ontario's economy.

The webinar addressed three topics: A recap of capacity auction (CA) and planned enhancements; updates on the medium-term (MT) RFP; and a high-level overview of the of the Long-Term (LT) RFP/RFQ. The PWU's comments are focused on design decisions associated with the LT RFP.

The PWU remains concerned that the proposed design parameters will not achieve a competitive procurement for the resources required. The PWU recommends the following:

1. Commitment and forward periods for the LT RFP must be longer to provide a fair and transparent process for all candidate technologies.
2. The target capacity of 1,000 MW should be increased and include assets needed by 2030 or even later.
3. Expand the LT RFP's resource eligibility to include existing resources to ensure that this mechanism cost effectively procures the resources needed for the long term.
4. RFP objectives and criteria should distinguish peak/reserve capacity needs and capacity needs for intermediate and baseload generation.

Recommendation #1: Commitment and forward periods for the LT RFP must be longer to provide a fair and transparent process for all candidate technologies.

The LT RFP has a commitment period of 7-10 years, which is insufficient to enable new large-scale non-emitting resources, such as nuclear, hydro, and carbon capture. To better facilitate the participation of the full suite of available technologies, the PWU recommends that the IESO extend the commitment period associated with the LT RFP for the following reasons:

- a) Large-scale infrastructure requires longer commitment and forward periods to attract investment;
- b) Shorter commitment periods are biased to higher cost, higher emitting supply options; and,
- c) There are better alternative risk mitigation options for procurement than the IESO's proposed commitment periods for the LT RFPs.

- a) Large-scale infrastructure requires longer commitment and forward periods to attract investment;

The proposed LT RFP parameters will not attract investors to build new large-scale, low-carbon generation and energy infrastructure that Ontario needs to renew or replace 50% of its capacity over the next 10 to 15 years.¹ The target commitment period for the LT RFP is 7-10 years, with a

¹ PWU submission to the MENDM, April 2021

forward period before operations of just 4-5 years. These timelines are unrealistic to allow for the development of new, large-scale options or to secure the investment required for large-scale capital-intensive infrastructure.

During the webinar, several stakeholders expressed concerns that the proposed commitment period provides insufficient revenue certainty for developers. Large-scale, low carbon generating assets, such as nuclear, hydro, carbon capture and sequestration and the associated delivery and transmission infrastructure are required to ensure Ontario's low carbon energy future. These options involve economic life spans that exceed 7-10 years: nuclear plants operate for 60+ years while hydro facilities and transmission system assets can operate for even longer periods.

Short commitment periods represent high risks that investors will be unable to recoup their costs and that the associated cost of price mitigation will be exorbitant.

The IESO's procurement framework for long-term energy resource planning should not preclude, but encourage, investments in Ontario's low-carbon, baseload nuclear and hydro and/or in carbon capture for Ontario's gas fleet.

- b) Shorter commitment periods are biased to higher cost, higher emitting supply options; and,

The IESO's resource eligibility guidance refers to the following resources as candidate participants:

- New-build facilities e.g., renewables, storage, etc.;
- Expanded, uprated and upgraded existing facilities that meet certain thresholds; and,
- Co-located/hybrid facilities e.g. renewables plus storage.

The examples indicate a distinct bias towards renewables and storage options. The short commitment periods also align well with the capabilities of these technologies to help cement this bias. It is worth noting that these resource types are higher cost and will lead to a higher-emitting electricity grid.²

This short commitment period precludes the procurement of other low-cost, low-carbon resources, such as nuclear. Excluding these other effective options in favour of specific technologies can be expected to result in higher, unnecessary costs to ratepayers and higher greenhouse gas emissions.

The PWU agrees with the Minister of Energy's direction that the IESO set a framework that is focussed on the energy system performance needs and is transparent, fair and technology agnostic.³ The increased investment certainty provided by properly sized commitment periods will benefit investors in all the options while lowering the costs to ratepayers.

- c) There are better alternative risk mitigation options for procurement than the IESO's proposed commitment periods for LT RFPs.

During the August Resource Adequacy (RA) webinar, the IESO indicated that longer-term commitment periods would encourage the participation of new entrants and new builds options for

² Strapolec, Distributed Energy Resources in Ontario, 2018.

³ In the letter to the IESO of November 10, 2021, the Minister encourage that the LT RFP be designed to be technology agnostic and allowing all technologies to participate as long as the proposed facilities can provide the required services.

the LT RFP. The IESO also stated that longer-term contracts would not be offered given the uncertainty of demand and supply conditions in the next 10+ years and to avoid the risk of over-procurement of locking in the bulk system supply mix. However, the IESO has not clarified how it intends to manage the risks of under supply associated with these short commitment and forward periods, particularly for low-carbon electricity.

In several previous submissions, the PWU recommended that the IESO consider its demand forecast and the IESO's identified sustained need to renew or replace 50% of Ontario's capacity and use that information to inform how much capacity is confidently known to continue to be needed in the long term.⁴ From the IESO's own APO forecast, it is known with absolute certainty that Ontario needs to procure approximately 10,000 MW of new or renewed supply to even meet the modest demand forecasts in the IESO's most recent APO.⁵ It is further recognized that climate action will induce new electrification demand and the IESO has indicated that its next APO will reflect this new electrification demand. It can be anticipated that the growing demand outlook will provide even greater confidence that the IESO should be procuring for the sustained long-term needs for generation capacity in this province.⁶ There is no need to arbitrarily limit the commitment periods that will reduce the long-term options that proponents may offer.

The LT RFP should clarify the long-term nature of Ontario's capacity needs, when the needs arise, and how much is appropriate to procure. This would allow proponents to identify the commitment requirements and lead times associated with their bids. In this manner the IESO will be assured of getting the most cost-effective proposals over the timeframes of interest and minimize their own planning risks.

Recommendation #2: The target capacity of 1,000 MW should be increased and include generation requirements needed by 2030 and beyond.

The PWU supports the IESO's proposed procurement of over 1000 MW of capacity for the LT RFP. The IESO's APO shows that Ontario requires over 10,000 MW of new or renewed capacity by 2030. About 6 GW of this capacity gap is baseload and intermediate supply.⁷

The IESO's LT RFP should not only be focused on procuring the resources required between 2026 and 2028 but also those that are forecast to be needed 10+ years from now. The lowest-cost solutions – nuclear, hydro and carbon capture – require longer lead times than the proposed 5 years to advance siting, regulatory, and environmental processes, and the associated stakeholder consultations. Stakeholders at the November SAC meetings expressed concerns that the IESO is moving too slowly with the procurement process. These views are consistent with those expressed by the PWU in our previous recommendations.⁸ By delaying the procurement of the long-term resources required beyond 2028, the IESO exposes the province to the significant risk that these resources not be available when needed. The

⁴ PWU feedback to Resource Adequacy engagements: September 2020

⁵ Strapolec, Electricity Markets in Ontario, 2020

⁶ Strapolec, Electrification Pathways for Ontario to Reduce Emissions, 2021

⁷ Peak & reserve requirements can be supplied through the CA and are ideally suited to existing gas generators.

⁸ PWU feedback to Resource Adequacy engagements: January, March, and April 2021; November 2020.

importance of “lead time” was referenced in the in the Minister’s recent letter to the IESO.⁹ Immediately commencing the procurement of these long-term resources would send a strong positive signal to investors and ensure that these resources are in place when required.

Recommendation #3: Expand the LT RFP’s resource eligibility to include existing resources to ensure that this mechanism cost effectively procures the resources needed for the long term.

The IESO’s procurement plan includes: annual Capacity Auctions accommodating short term variations in peaking and reserve capacity; MT RFPs to renew existing capacity on a rolling 3-year time frame; and the LT RFP to address any resulting gaps.

The IESO should reverse the roles of the LT RFP and subsequent MT RFPs. The MT RFPs may be best suited to addressing any medium-term supply gaps because the results of the LT RFP will be known before the second MT RFP is issued. The LT RFP should thus be open to any resource interested in offering bids to meet Ontario’s long-term capacity needs, including existing resources. This would help the IESO optimize procurement and lower contract costs while meeting the less certain capacity requirements with unavoidable shorter-term but higher cost resources.

Recommendation #4: RFP objectives and criteria should distinguish peak/reserve capacity needs and capacity needs for intermediate and baseload generation.

In previous submissions, the PWU has stressed the importance of procuring resources that meet all three types of demand in Ontario: baseload, intermediate, and peak + reserve.¹⁰ The IESO has state that its procurement framework is focussed on “capacity style” contracts. Capacity style contracts may be very appropriate for procuring peaking and reserve capacity, but they are uniquely suited to gas-fired generation, which Ontario may be phasing out over time.¹¹ Securing the energy infrastructure to meet Ontario’s intermediate demand for normal daytime activities and baseload for 24x7 365 days a year requires the procurement of low-carbon energy and capacity. The IESO’s proposed procurement design splits the capacity needs from energy needs and does not encourage the participation of non-emitting resources.¹² The economic viability of all non-emitting resources depends on the generation performance requirements that their capacity solutions are intended to meet. The LT RFP should explicitly state how much capacity is being sought for each category of need and specify the generation performance requirements to be met for each application. This approach will ensure a fair and transparent process for securing the cost-effective solutions needed to operate Ontario’s system as the Minister of Energy has requested.¹³

⁹ Letter from the Minister of Energy to the CEO of the IESO, November 10, 2021

¹⁰ PWU feedback to Resource Adequacy engagements: January & April 2021; September & November 2020.

¹¹ Letter from the Minister of Energy to the IESO, October 2, 2021, requesting studies on how to phase out natural gas fired generation

¹² Strapolec, Electricity Markets in Ontario, 2020

¹³ Letter from the Minister of Energy to the CEO of the IESO, November 10, 2021

Closing

The PWU supports the IESO's efforts to develop a procurement framework for meeting Ontario's electricity needs. As this submission notes, several critical elements of the IESO's proposed framework remain to be clarified and resolved. The PWU looks forward to future consultations.

The PWU has a successful track record of working with other stakeholders in collaborative partnerships. We look forward to continuing to work with the IESO and other energy stakeholders to strengthen and modernize Ontario's electricity system. The PWU is committed to the following principles: Create opportunities for sustainable, high-pay, high-skill jobs; ensure reliable, affordable, environmentally responsible electricity; build economic growth for Ontario's communities; and, promote intelligent reform of Ontario's energy policy.

We believe these recommendations are consistent with and supportive of Ontario's objectives to supply low-cost and reliable electricity for all Ontarians. The PWU looks forward to discussing these comments in greater detail with the IESO and participating in the ongoing stakeholder engagements.