



February 22, 2021

Independent Electricity System Operator
1600-120 Adelaide Street West
Toronto, ON
M5H 1T1

Via email to engagement@ieso.ca

Re: January 2021 Resource Adequacy Engagement

The Power Workers' Union ("PWU") represents a large portion of the employees working in Ontario's electricity industry. Attached please find a list of PWU employers.

The PWU appreciates the opportunity to provide input on the January 2021 Resource Adequacy engagement. The PWU is a strong supporter and advocate for the prudent and rational reform of Ontario's electricity sector and recognizes the importance of low-cost, low-carbon energy to the competitiveness of Ontario's economic sectors.

The PWU believes that IESO processes and initiatives should deliver energy at the lowest reasonable cost while stimulating job creation and growing the province's gross domestic product (GDP). We are respectfully submitting our detailed observations and recommendations.

We hope you will find the PWU's comments useful.

Yours very truly,

Jeff Parnell

CANADIAN UNION
OF PUBLIC EMPLOYEES,
LOCAL 1000, C.L.C.
244 EGLINTON AVE. E.
TORONTO, ONTARIO
M4P 1K2
TEL.: (416) 481-4491
FAX: (416) 481-7115

PRESIDENT
Jeff Parnell

VICE PRESIDENTS
Andrew Clunis
Mike Hambly
Tom Chessell

List of PWU Employers

Abraflex (2004) Ltd.
Alectra Utilities
Algoma Power
Aptum
Atlantic Power Corporation - Calstock Power Plant
Atlantic Power Corporation - Kapuskasing Power Plant
Atlantic Power Corporation - Nipigon Power Plant
Atura - Halton Hills Generating Station
Atura - Napanee Generating Station
Atura - Portlands Energy Centre
Atura – Brighton Beach Generating Station
Bracebridge Generation
Brookfield Power Wind Operations
Brookfield Renewable Power - Mississagi Power Trust
Bruce Power Inc.
Canadian Nuclear Laboratories
Cochrane Telecom Services
Compass Group (Bruce NPD)
Comapss Group (Pickering NGS)
Compass Group (Darlington NGS)
Corporation of the County of Brant
Covanta Durham York Renewable Energy Ltd.
Electrical Safety Authority
Elexicon Energy Inc.
Enwave Windsor
EPCOR Electricity Distribution Ontario Inc.
Erth Power Corporation
Erth Holdings Inc
Ethos Energy Inc.
Great Lakes Power (Generation)
Greenfield South Power Corporation
Grimby Power Incorporated
Halton Hills Hydro Inc.
Hydro One Inc.
Hydro One CSO
Hydro One Sault Ste. Marie
Independent Electricity System Operator
Inergi LP
InnPower
Kinectrics Inc.
Kitchener-Wilmot Hydro Inc.
Lakeland Power Distribution
Laurentis Energy Partners
London Hydro Corporation
Milton Hydro Distribution Inc.
New Horizon System Solutions
Newmarket -Tay/Midland Hydro Ltd.
Nuclear Waste Management Organization
Ontario Power Generation Inc.
Orangeville Hydro Limited
PUC Services
Quality Tree Service
Rogers Communications (Kincardine Cable TV Ltd.)
Sioux Lookout Hydro Inc.
SouthWestern Energy
Synergy North Corporation
Tillsonburg Hydro Inc.
Toronto Hydro
TransAlta Generation Partnership O.H.S.C.
Westario Power

**PWU Submission on the IESO's January 2021 Resource Adequacy Engagement
February 22, 2021**

The Power Workers' Union (PWU) is pleased to submit comments and make recommendations to the Independent Electricity System Operator (IESO) regarding the Resource Adequacy Engagement webinar held on January 26. 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 PWU supports increased transparency in the procurement process and supports the development of an Annual Acquisition Report (AAR) to achieve those goals. The AAR would work in concert with the Annual Planning Outlook (APO) to communicate Ontario's needs and how they will be procured.

However, there are still significant risk factors facing the IESO's strategic vision to meet Ontario's electricity system needs in a timely, flexible, and cost-effective manner. As noted in our last submission in November, the IESO needs to be using alternative procurement mechanisms now to procure capacity for 2025/2026, when Pickering closes and a sustained long term need for baseload capacity emerges. The PWU supports the current progress, but urges quicker implementation of the plan to procure necessary capacity sooner rather than later. As time passes, the urgency grows along with the risks and consequences of making the wrong choices.

The PWU reiterates two previous recommendations to the IESO:

1. Accelerate the procurement timeline to address upcoming needs; and,
2. Specify the requirements in the AAR in the form of Ontario's demand and reliability needs: baseload, intermediate, and peak.

Recommendation #1: Accelerate the procurement timeline to address upcoming needs

Capacity needs in the province begin to emerge in 2025, aligning with the closure of the 3000 MW Pickering Nuclear Generating Station. As stated in the APO, this supply gap persists despite the availability of existing resources. However, in the resource adequacy webinar in September, the IESO stated it would not begin procurements until 2025. Waiting until this date to begin implementing the IESO's procurement framework design could leave Ontario without cost-effective, viable solutions, potentially resulting in:

- **Procurement only of generation that can get built quickly** – i.e., in less than three years. Only new natural gas-fired generation can be built assuming such short timelines for the scale required to supply Ontario's need – and site selection processes may extend this time.
- **Long-term legacy of higher greenhouse gas (GHG) emissions in the electricity system** – a direct consequence of increasing natural gas-fired generation. The IESO's emissions forecast in the APO shows emissions rising from 5 Mt CO₂ in 2020 to 15 Mt in 2040. The province will transition from being a recognized clean energy jurisdiction to one emitting more GHGs. This will undermine the effectiveness of Ontario's other climate change initiatives, including electric vehicles and hydrogen, as the incremental electricity consumed for each will be supplied by new, GHG-emitting natural gas-fired generation.

- **A higher cost solution** – Generation built in less than 3 years will not be low-cost as the schedule will be the primary driver. Furthermore, natural gas will not be the cost-effective solution by the end of the decade.¹ This outcome is recognized in the IESO’s APO, which forecasts the marginal cost of electricity will more than double from 2020 to 2040, driven by the marginal cost of natural gas-fired generation. In addition, the expected increase in carbon pricing can be expected to drive new natural gas-fired generation to become uneconomic even sooner.

These consequences can be avoided if the IESO begins procuring sooner. Indeed, the IESO does not need four years to prepare for procurements of long-term assets. This assumption appears to be driven by a process overcomplicated by the focus on electricity markets solutions – in particular, capacity auctions, which will not be used to procure long-term assets. The IESO should accelerate their procurement timeline to ensure better alignment with upcoming capacity needs.

The IESO has shown that they can use alternative procurement mechanisms to quickly procure capacity that is needed, such as in the recent re-contracting of the Lennox gas plant using an unsolicited procurement. While the PWU still supports the development and use of competitive procurement mechanisms, this example shows that the IESO can move quickly when there is a need. The longer the IESO waits, the more likely it is that Ontario will lock itself into a high-cost, high-emission future.

Recommendation #2 – Specify the requirements in the AAR in the form of Ontario’s demand needs: baseload, intermediate, and peak.

Energy demand in this province comes in three distinct forms: baseload, intermediate, and peak. The upcoming AAR is expected to provide an integrated understanding of the province’s electricity requirements. These requirements include provincial planning products; local planning products; government policy objectives and directives; and, ancillary services. It will specify the approach to long, mid, and short-term procurement mechanisms. However, it remains unclear how the AAR will be used to procure for the distinct forms of energy demand described above. Furthermore, different viable, economic technology options may involve different timeframes to commission the procured supply.

Within the AAR, the demand to be serviced by new supply should be clearly stated in terms of baseload, intermediate, and peak needs. As the PWU previously submitted,² cost-effectively satisfying these needs requires an optimized mix of supply components, which experience shows are difficult to procure through markets.³ Characterizing these distinct forms of demand enables each to be matched to an optimal supply mix, with cost and system implications taken into account. If necessary, these forms of demand can then be matched to different procurement mechanisms or commitment timeframes.

In addition, the uncertainty stemming from demand assumptions can be communicated for each form of demand. This will help define how much supply could be procured with confidence via long-term procurement mechanisms, while legitimate uncertainties in demand can be deferred to short-term

¹ Tyson, Madeline, Charlie Bloch. Breakthrough Batteries: Powering the Era of Clean Electrification. Rocky Mountain Institute, 2019. <http://www.rmi.org/breakthrough-batteries>

² PWU, Resource Adequacy Engagement Feedback Submission, November 2020

³ Strapolec, Electricity Markets in Ontario: An Examination of Mismatched Conditions and Options for Future Competitive Procurements, 2020.

approaches. Such an approach allows for the optimal matching of supply requirements to procurement mechanisms, lowers the risks for longer-term procurements and encourages technology agnostic bundled solutions specific to the demand needs to be serviced.

The IESO should apply this demand-characterization approach to determine Ontario’s procurement needs applicable to each of its medium and long-term procurement mechanisms; and use it to inform details such as the minimum acquisition floor in the Annual Capacity Auction. The IESO should consider the implications of this approach on its other mechanisms before moving forward.

Closing

There is evident urgency to resolve Ontario’s go-forward procurement strategy. The contracting/RFP process should begin much earlier than the IESO’s planned 2025 completion for its process design.

The PWU has a successful track record of working with others 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.

Appendix

IESO has asked for specific feedback as part of this resource adequacy engagement and below is a table mapping our feedback to the desired feedback areas.

Requested Feedback	Recommendation Mapping
Does the proposed process to set acquisition targets and select competitive mechanisms align with stakeholder needs?	Recommendation 1 – need to accelerate procurement timeline
Is there any additional information that the IESO should consider including in the Annual Acquisition Report (AAR) to help participants make investment decisions?	Recommendation 2 – include different types of demand to better procure supply
What are the timing considerations from a stakeholder perspective with respect to the AAR?	Recommendation 1 – accelerate the development to better align with need
Are there any concerns with the proposed Capacity Auction enhancements?	Recommendation 2 – no issue with the enhancements, except how the minimum floor is set.