



**POWER  
WORKERS'  
UNION**

October 15, 2021

Independent Electricity System Operator  
1600-120 Adelaide Street West  
Toronto, ON  
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Via email to [engagement@ieso.ca](mailto:engagement@ieso.ca)

**Re: Resource Adequacy September 2021 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 Resource Adequacy 2021 September engagement meeting. 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  
President

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## **List of PWU Employers**

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Atlantic Power Corporation - Kapuskasing Power Plant  
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Halton Hills Hydro Inc.  
Hydro One Inc.  
Hydro One CSO (formerly Vertex)  
Hydro One Sault Ste. Marie (formerly Great Lakes Power Transmission)  
Independent Electricity System Operator  
Inergi LP  
InnPower (Innisfil Hydro Distribution Systems Limited)  
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Newmarket Tey/Midland Hydro Ltd.  
Nuclear Waste Management Organization  
Ontario Power Generation Inc.  
Orangeville Hydro Limited  
Portlands Energy Centre  
PUC Services  
Quality Tree Service  
Rogers Communications (Kincardine Cable TV Ltd.)  
Sioux Lookout Hydro Inc.  
SouthWestern Energy  
Synergy North (formerly Kenora Hydro Electric Corporation Ltd.)  
Tillsonburg Hydro Inc.  
The Electrical Safety Authority  
Toronto Hydro  
TransAlta Generation Partnership O.H.S.C.  
Westario Power

## **Power Workers' Union Submission on the IESO's September 2021 Resource Adequacy Engagement**

**October 14, 2021**

The Power Workers' Union (PWU) is pleased to submit comments and make recommendations to the Independent Electricity System Operator (IESO) regarding its September 23<sup>rd</sup> 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: the high-level design of the upcoming medium-term (MT) RFP procurement mechanism; the next steps for Capacity Auction enhancements; and, the preliminary results of the Hourly Demand Response methodology. The PWU's comments are focused on the MT RFP procurement mechanism.

The PWU recognizes that the IESO has not fully reviewed our previous feedback but appreciates that some of our previous comments have been incorporated e.g., the longer obligation offer requirements and the inclusion of energy duration in the rated criteria. However, the PWU remains concerned that the proposed design assumptions will not achieve a competitive procurement for the resources required.

The PWU recommends the following:

1. Identify the expiring resources that are expected to participate in the MT RFP;
2. Clarify how the minimum and rated criteria will be applied to ensure that the RFP outcomes will meet system needs;
3. Clarify how, without a minimum energy requirement, the IESO intends to manage the risk of insufficient energy supply; and,
4. Clarify the bridging mechanisms to ensure the continued operation of the Atikokan Generating Station between its 2024 contract expiration and its participation in the MT RFP.

### **Recommendation #1: Identify the expiring resources that are expected to participate in the MT RFP**

The IESO's MT RFP approach focuses on re-procuring 750 MW of resources with contracts that will expire prior to April 30, 2027. The Annual Acquisition Report (AAR) shows that approximately 1,500 MW of "nameplate capacity" resources will expire by 2027<sup>1</sup>. However, this requirement appears to be closer to 1,100 MW of effective capacity.<sup>2</sup>

An assessment of the IESO's contracted resource summary suggests that 1,317 MW of resources could be eligible to compete in the MT RFP:<sup>3</sup>

- 205 MW from the Atikokan Generating Station, 63 MW from other biomass facilities;
- 646 MW from six gas plants (the majority from the 444 MW Sarnia Cogeneration Plant and 90 MW from the GTAA Cogeneration plant); and

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<sup>1</sup> IESO, Annual Acquisition Report, 2021.

<sup>2</sup> Calculated by applying the de-rating factors published by the IESO in the 2016 Ontario Planning Outlook (OPO) to the installed nameplate capacity of expiring contracts in 2027 published in Figure 12 of the 2021 AAR.

<sup>3</sup> IESO, Active Contracted Generation List, 2021.

- 395 MW from five wind farms and 8 MW from a hydro plant.

It remains unclear as to which other resources with expiring contracts the IESO intends to acquire to make up the balance of the 1,500 MW suggested in the AAR, but they appear to be mostly gas-fired generation contracts. The IESO should clearly communicate to stakeholders which of these resources could be eligible to participate in the MT RFP and be compared directly to the 750 MW target capacity in the MT RFP.

The clarification is important given that the target capacity in the MT RFP may be close to the expected capacity of the resources with expiring contracts. If these two values are similar the procurement process could limit competition and result in market power. The IESO has not yet discussed Market Power Mitigation however this issue has been flagged by the Ontario Energy Board (OEB) Market Surveillance Panel (MSP).<sup>4</sup>

**Recommendation #2: Clarify how the minimum and rated criteria will be applied to ensure that the RFP outcomes will meet system needs.**

It is not clear how the IESO plans to balance the stated minimum requirements with what appear to be subjective rated criteria. For example, one of the IESO's proposed rated criteria recognizes locational value e.g. in transmission constrained areas. Several Integrated Regional Resource Plans (IRRP), including those for the Northwest, Ottawa, and Southwest regions forecast demand growth with associated transmission constraint risks that arise during the MT RFP's timeframe.<sup>5</sup> Furthermore, these IRRP engagements have stated that any generation solutions would be procured through the Resource Adequacy framework.

Given the potential critical need and locational advantage of certain resources, it remains unclear as to how a single competitive procurement can fairly address supply needs for these regions. This is important if the locational value of resources is only a subjective rated criteria that is applied after the fact by the IESO.

The IESO's RFP should clearly specify how locational value will influence their procurement decisions. The IESO should clearly state the need and procure accordingly to enable bidders to better understand the procurement decision-making process. The current absence of transparency regarding how the rated criteria will be applied increases the risk of reduced competition and sub-optimal outcomes.

**Recommendation #3: Clarify how, without a minimum energy requirement, the IESO intends to manage the risk of insufficient energy supply**

The PWU recognizes that the IESO intends for these procurements to be secured via capacity style contracting mechanisms. However, the resources being procured are not for peaking or reserve capacity. The IESO's other Capacity Auction mechanism serves to seek such resources that can provide 4 hours of energy services during the peak demand hours of the year.

The IESO has not set a minimum energy supply capability in the MT RFP but has instead made energy supply duration a rated criterion. Concurrently, the IESO has set a requirement, the "5x16" requiring that these resources must be capable of *offering* energy into the IAMs for 16 hours on any business day,

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<sup>4</sup> OEB MSP, Submission on Resource Adequacy August 2021 Engagement, 2021.

<sup>5</sup> IESO, 2020 Ottawa Sub-Region IRRP, Northwest 2021 IRRP Engagement, 2021 West of London Bulk Plan.

which is intended to encompass all peak periods of the year.<sup>6</sup> This is equivalent to the operational profile of the resources that supply intermediate demand- rises in the morning and drops at night. This suggests that the IESO intends to meet intermediate demand with resources contracted in the MT RFP. The IESO's emphasis on the requirement to offer is confusing as it has already indicated that some resources could offer uneconomic bids for energy that would then not be dispatched, yet this behavior would be considered compliant with the capacity contract.

Similar to the locational rated criteria, there is a lack of clarity regarding how the IESO will reconcile the mandatory 5x16 requirement with the rated criteria of the "greater energy supply the better". Without including a defined minimum energy requirement, the MT RFP could result in the lowest cost bids being incapable of actually providing energy. This issue was raised during the webinar's discussion on storage, which may be eligible to bid, but, for which a 16-hour energy delivery capability would be cost prohibitive and therefore not implemented.

The PWU's past submissions have emphasised the importance of focusing on all three types of electricity demand: baseload, intermediate, and peaking<sup>7</sup>. Each type has different requirements due to the duration over which the energy must be supplied. Different procurement mechanisms for each would optimally procure the lowest cost supply mix. The optimal procurement of intermediate and baseload supply requires clearly specifying the essential attributes of the resources required. If the MT RFP is intended to secure reliable intermediate supply capability for up to 16 hours of generation per day, this should be a specified requirement within the RFP. Proposing the 16 hours as a rated criteria is non-transparent and increases the risk of sub-optimal outcomes. Without a clear definition of the desired energy attributes, the IESO's 750 MW procurement target may be met by resources incapable of supplying the 16 hours of generation and thereby not meet its reliability objectives.

**Recommendation #4:** Clarify the bridging mechanisms to ensure the continued operation of the Atikokan Generating Station between its 2024 contract expiration and its participation in the MT RFP.

The contract for the 215 MW Atikokan Generating Station (AGS) expires in July 2024 almost two years before the IESO's MT RFP contracted resources are expected to begin operation in May 2026. The IESO has indicated that eligible assets could bridge the gap to the MT RFP by participating in the capacity auction.

The AGS, fuelled by renewable, locally supplied wood pellets is unable to compete with other resources in either the capacity or energy markets, while Ontario is in a surplus situation prior to the retirement of the Pickering Nuclear Generating Station in 2024.

This station is a strategic resource in the Northwest providing 215 MW of low-emission intermediate and/or peak capacity and support for exports to and from Manitoba. Recent, drought conditions required Atikokan GS to run 24x7 for three weeks to offset the loss of hydro production in the region, at the request of IESO.<sup>8</sup> The plant was called upon three more times to provide emergency support in 2021. The IESO'S IRRP for the Northwest forecasts a significant increase in demand that even with the

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<sup>6</sup> IESO, Capacity Market Education for MT RFP, October 2021.

<sup>7</sup> PWU, Submission on Resource Adequacy September 2020 Engagement, 2020.

<sup>8</sup> Northern Ontario Business, "Atikokan power station helped beat August's heat", September 21, 2021.

construction of the E-W tie-line could leave the region with a capacity shortfall. The station also supports hundreds of jobs in the region and makes a significant contribution to the region's GDP.

The strategic benefits of the Atikokan GS call for a bridging mechanism that enables its continued operation between the expiration of the current contract with the IESO and the station's participation in the MT RFP. Without this capacity, which represents more than 25% of the MT RFP target, meeting demand in the Northwest and addressing Ontario's emerging capacity shortfall will be significantly challenging.

The IESO should clarify, as soon as possible, how this bridging mechanism for the Atikokan GS will be included in the MT RFP and the IRRP for the Northwest.

### **Closing**

The PWU commends the IESO for the progress it has achieved in redefining its planning approach. However, as this submission highlights, significant risks with the proposed MT RFP remain to be addressed by the IESO.

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.