

May 16, 2022

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

Via email to engagement@ieso.ca

Re: Northwest Integrated Regional Resource Plan (IRRP)

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 Northwest Integrated Regional Resource Plan (IRRP). 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

Alectra Utilities (formerly PowerStream) Algoma Power AMEC Nuclear Safety Solutions Aptum (formerly Cogeco Peer 1) Atlantic Power Corporation - Calstock Power Plant Atlantic Power Corporation - Kapuskasing Power Plant Atlantic Power Corporation - Nipigon Power Plant Bracebridge Generation **Brighton Beach Power Limited Brookfield Power Wind Operations** Brookfield Renewable Power - Mississagi Power Trust Bruce Power Inc. Canadian Nuclear Laboratories (AECL Chalk River) Collus Powerstream **Compass Group** Corporation of the County of Brant Covanta Durham York Renewable Energy Ltd. Elexicon (formerly Whitby Hydro) Enwave Windsor Erth Power Corporation (formerly Erie Thames Powerlines) Erth Corporation Ethos Energy Inc. Great Lakes Power (Generation) Greenfield South Power Corporation Grimsby Power Incorporated 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 Inerai LP InnPower (Innisfil Hydro Distribution Systems Limited) Kinectrics Inc. Kitchener-Wilmot Hydro Inc. Lakeland Power Distribution London Hydro Corporation Milton Hydro Distribution Inc. New Horizon System Solutions 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 Northwest Region IRRP

May 16, 2022

The Power Workers' Union (PWU) is pleased to submit comments and recommendations to the Independent Electricity System Operator (IESO) regarding its April 25 Webinar on the Integrated Regional Resource Plan (IRRP) for the Northwest (NW) Region. 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 IESO provided an update on the targeted discussions it held in 2021 and its forecast demand scenarios, options and growth sensitivities. The IESO is seeking feedback on how it has considered local reliability concerns, growth scenarios and local supply options.

The PWU remains supportive of the IESO's efforts to develop the NW IRRP in response to growing electricity demand in the region and its decision to extend the schedule for completing the NW IRRP in order to accommodate the potential implications of the underway Northeast (NE) Bulk system plan.

As previously noted, the PWU remains concerned that the Atikokan Generating Station (AGS) continues to be excluded from the IESO's assumptions for the development of the NW IRRP.¹ Given the anticipated regional demand growth over the next 5 years and limited options being considered to meet this need, the AGS should be a critical element for ensuring system reliability and maximizing the economic benefits to the region's low-carbon energy transition.²

The PWU makes the following recommendations:

- 1) The IESO should consider the demand growth implications of its high case in the 2021 Annual Planning Outlook (APO) and the outcomes of its Decarbonization Pathways Study;
- 2) The IESO should include the reliability contribution that the AGS can offer to the NW IRRP as it explores the Northeast Bulk System Plan for new transmission capacity; and,
- 3) The IESO should not finalize its NW IRRP planning activities until the implications of the IESO's Decarbonization and Gas Moratorium studies are completed.

Recommendation #1 - The IESO should consider the demand growth implications of its high case in the 2021 Annual Planning Outlook (APO) and the outcomes of it's Decarbonization Pathways Study.

It is appropriate that the IESO has adjusted its forecast demand since analyses show that electricity demand is growing in the Northwest Region. However, the IESO's current forecast of 1059 MW in 2027 remains less than that suggested by the Common Voice Northwest (CVNW) Energy Task Force (ETF) and only considers the modest EV forecast from the 2020 APO.³ This demand forecast does not include the higher forecasts in the IESO's 2021 APO nor does it consider broader electrification driven demand e.g., the City of Thunder Bay, that should be reflected in the APO high demand case. Analyses suggest that

¹ PWU submission to the IESO's NW IRRP September 2021 consultation, October 2021.

² Strategic Policy Economics, "Extending Atikokan Biomass Generating Station (AGS) Operations", 2022.

³ IESO demand tables provided to support the April 2022 NW IRRP webinar.

the foreseeable peak needs in the NW could reach 1220 MW in 2027, 160 MW more than the NW IRRP is currently planning for, after consideration of the potential local non-wires alternatives for meeting peak demand which the IESO is seeking feedback on. By 2030, the Region faces a potential supply gap of 560 MW over and above the capacity of the East-West (E-W) tie line. These forecasts could be even higher depending on the outcomes of the IESO's Decarbonization Pathways Study, expected to be completed in November of this year.

Furthermore, the IESO noted during the webinar that full consideration of the Ring of Fire and connection requests in the Fort Frances area could represent more than 230 MW of needed capacity that is currently not included in the NW IRRP forecast. This amount exceeds the 160 MW demand increment identified by the other previously noted analyses and reinforces the prudency of the IESO including these higher demand scenarios in its planning.

Recommendation #2 - The IESO should include the reliability contribution that the AGS can offer to the NW IRRP as it explores the Northeast Bulk System Plan for new transmission capacity.

The E-W tie line was planned to help meet this need, but analysis shows that the supply in the Northeast will be unable to provide the required energy to the tie line.⁴ This shortfall is recognized in the Northeast Bulk Plan due to additional loads (e.g. electrification of the arc furnaces at Algoma Steel), which impacts supply to both the local Sault Ste. Marie area as well as the E-W tie line's ability to serve the growing demand in Thunder Bay and region to the west of it. To address these risks, the Northeast Bulk Plan has identified the need for new transmission to connect hydroelectric production in the area to Wawa at the base of the E-W tie line in order to supply Algoma from the north instead of the south.⁵

The Atikokan GS is strategically located at the heart of the transmission network to feed the mining developments identified by the IESO north of Dryden thereby providing resiliency to region's electricity supply and alleviating demand on the E-W tie line. Analyses show that the AGS is an economic alternative that addresses these supply and transmission constraints.⁶

The same analyses demonstrate that the AGS provides additional GHG emission and economic benefits in the form of jobs and GDP contributions to existing wood pellet producers and forestry sector for local and Indigenous communities.

Recommendation #3 - The IESO should not finalize its NW IRRP planning activities until the implications of the IESO's Decarbonization and Gas Moratorium studies are completed.

The Minister of Energy directed the IESO to explore the implications of decarbonization pathways for Ontario's electricity system and the phase out of natural gas fired generation in the province.⁷ Analyses show that the consequential impact on Ontario's demand forecast and supply mix challenges will be

⁴ Strategic Policy Economics, "Extending Atikokan Biomass Generating Station (AGS) Operations", 2022.

⁵ IESO, Northeast Bulk Plan webinar materials, April 26, 2022.

⁶ Strategic Policy Economics, "Extending Atikokan Biomass Generating Station (AGS) Operations", 2022.

⁷ Minster of Energy, Re: Gas Phaseout Study, Oct 7, 2021.

significant.⁸ It will also consequentially impact the Northwest Region and the manner by which it is supplied as previously described.

The AGS can play a critical role in helping to reduce GHG emissions and displace import-dependent natural gas-fired generation in the Northwest, especially following the retirement of the Pickering Nuclear Station when the Greater Toronto Area requires increased supply from the southern located gas-fired generation facilities.

The IESO suggests that these factors and the implications of Ontario's critical minerals, forestry and hydrogen strategies, including the Ring of Fire will be addressed in the next five-year cycle of its plan. This approach is inappropriate as the importance of these critical elements will have accelerated and the five-year delay will put the reliability of supply in the Northwest at risk and diminish the region's economic outlook for the long run.

The NW IRRP should not be finalized before the completion of the Northeast Bulk Plan as stated by the IESO and should also be informed by the conclusions from its Decarbonization Pathways and Off-Gas Studies, the 2022 APO and implications for its 2023 Annual Acquisition Report (AAR), all of which are expected before the end of this year.

Closing

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 and specifically in Northwest Ontario. The PWU looks forward to discussing these comments in greater detail with the IESO and participating in future stakeholder engagements.

⁸ Strategic Policy Economics, "Electrification Pathways for Ontario", 2021.