



**POWER
WORKERS'
UNION**

March 8, 2024

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

Via email to engagement@ieso.ca

Re: Transmission Planning Bulk Study Updates

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 Transmission Planning Bulk Study Updates. 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.

While the PWU supports the IESO's accelerated approach to advance Ontario's bulk system planning, the PWU recommends that the IESO should keep its studies current with evolving demand forecasts, supply procurement and BCA methodologies.

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.

Sincerely,

Jeff Parnell
President

Encl.

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
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Mike Hambly
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August 2023

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**Power Workers' Union Submission to the IESO on the Transmission Planning Bulk Study Updates
March 8, 2024**

The Power Workers' Union (PWU) is pleased to submit comments and make recommendations to the Independent Electricity System Operator (IESO) regarding its February 23rd webinar on the Transmission Planning Bulk Study Updates. 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.

Context

The IESO advanced a bulk system study for the Central-West (CW) area last year that was originally to start in 2024 as noted in the 2022 Annual Planning Outlook (APO). The CW area is defined to include the Bruce and Niagara regions; however, the IESO has excluded these regions from the scope of its study. The IESO notes that large new load connections warrant early transmission reinforcements and provides some recommendations. In light of forecast demand growth and Ontario's direction in its *Powering Ontario's Growth (POG) Report*, the IESO is now proposing the advancement of Bulk System studies for: Southern and Central Ontario (which includes the CW area and the GTA); Northern Ontario; and Eastern Ontario. These studies will be informed by the ongoing work for Toronto and the GTA North with special attention being given to ESSA, the "lynchpin" that connects all of these areas. It is worth noting that the IESO has indicated that these broader studies will consider the implications of the POG Report i.e., additional SMRs at Darlington and expanded nuclear capacity at the Bruce site.

The PWU applauds the IESO's reconsideration of its scheduled bulk system planning activities to:

- Collectively advance bulk system plans across the province over the next 18 months;
- Apply a cost benefits analysis to assess possible Non-Wires Alternatives (NWAs) for meeting the identified needs; and,
- Conduct quarterly stakeholder engagement updates on the status of the bulk system studies.

These initiatives are reflective of the PWU's 2023 recommendations regarding the CW Bulk System Plan.

The IESO is seeking feedback on three topics:

- Topics to include as part of the Bulk Transmission planning engagements;
- Other methods of engagement that support participation in bulk system planning; and,
- Additional considerations for integrating the CW bulk study findings into the aforementioned broader bulk system plans.

The PWU recommends the following:

1. The IESO should ensure that the upcoming 2024 APO reference demand case and any subsequent modifications drive its bulk system planning activities;
2. The bulk system studies should be coordinated with the IESO's ongoing procurement activities and responses to the government's directives regarding the evaluation of transmission options for new nuclear projects;¹ and,

¹ Ministry of Energy, Letter to the IESO re Powering Ontario's Growth, July 10, 2023.

3. The IESO should provide the detailed assumptions and benefit/cost analyses (BCAs) conducted to inform its bulk system recommendations.

Recommendations

Recommendation #1 - The IESO should ensure that the upcoming 2024 APO reference demand case and any subsequent modifications drive its bulk system planning activities.

The PWU remains concerned that the IESO's webinar statements regarding its CW Bulk System Study are based on the 2022 APO demand reference and discounts the findings from its *Pathways to Decarbonization (P2D) Study*. Proceeding with the bulk system studies, absent consideration of forecast electricity demand growth will result in cost increases for ratepayers, greater reliability and economic risks, and a slower transition to a net zero economy.

Given the long-lead times required for transmission projects and, as previously recommended by the PWU, the CW bulk system study findings should be revisited in light of the new demand. All the planned bulk system studies should be aligned with the upcoming 2024 APO and POG Report demand, which was based on the IESO's P2D Study. For example, the preliminary 2023 APO provided in December 2023 showed a summer peak demand forecast for 2033 that is ~5% higher than the APO 2022 forecast for that year.

It is not yet evident as to whether Ontario's *Cost-Effective Energy Pathways Study* will reflect a demand forecast that reinforces or contradicts those contained in the P2D and/or the IESO's preliminary 2023 APO. Furthermore, the previous four APO demand forecasts have increased year over year as the IESO has refined its assumptions and added new growth. It is notable that the preliminary 2023 APO excludes any consideration of electrified heating. The IESO should include schedule gates in its bulk system study process for reflecting new demand forecasts in a timely manner as they emerge.

Recommendation #2 - The bulk system studies should be coordinated with the IESO's ongoing procurement activities and responses to the government's directives regarding the evaluation of transmission options for new nuclear projects.

Previous PWU submissions have identified that independent analyses highlight the need for 4600 MW by 2035 and up to 7000 MW by 2050 of new, non-emitting *baseload supply* across all regions in the CW area, including the Bruce and Niagara regions.² Furthermore, these analyses indicated that even if all of the potential output from the Bruce Power Nuclear Complex and all of the hydroelectric capacity at Niagara Falls were devoted to meeting baseload demand in the CW area, Ontario will still face a capacity shortfall in the area of 2 GW in 2035 and 9 GW in 2050. This will significantly inhibit available supply to support the GTA and/or exports.

The Ontario government has directed the IESO to address "*the timing of completing any future transmission work needed to support the POG Report, as well as recommendations on transmission projects that could proceed with early planning and development work*". The directive makes specific mention of new nuclear and hydro developments. The results of OPG's and Bruce Power's assessment and planning for these new, non-emitting nuclear and hydroelectric projects is not expected to be

² Analysis based on finding documented in the Strategic Policy Economics report, "Electrification Pathways for Ontario", 2021.

available until Q4 2024, midway through the IESO's Bulk System Studies. The required new nuclear assets will respond to Ontario's long-term demand forecasts.

Concurrently, the IESO is undertaking a staged series of medium- and long-term procurements for new generation assets to be in service between now and 2034. The location of the resultant selected assets will materially impact on the requirements for bulk transmission system infrastructure.

It is critical that the IESO maintains flexibility in its bulk system planning processes to accommodate these emerging events without undermining the results of its pending bulk system plans. Similar to the obfuscation regarding the evolution of the aforementioned demand forecasts, the IESO has yet to clarify how the activities to develop its bulk system studies will be integrated with its ongoing procurement activities.

Recommendation #3 - The IESO should provide the detailed assumptions and benefit-cost analyses (BCAs) conducted to inform its bulk system recommendations.

In its webinar, the IESO provided a high-level summary of its benefit-cost assessment for the CW transmission upgrade options compared to a NWA option. The PWU agrees that the BCA should reflect the net present value of capital, O&M, and energy costs and that the IESO's findings are "directionally" correct. However, as reflected in the questions from some webinar participants, it continues to be unclear as to whether the IESO's underpinning assumptions are generally accepted by stakeholders and are consistent with the OEB's BCA framework currently under development. The IESO should fully disclose its assumptions and analysis with respect to BCAs and their consistency with the OEB's emerging framework.

Closing

While the PWU supports the IESO's accelerated approach to advance Ontario's bulk system planning, the PWU recommends that the IESO should keep its studies current with evolving demand forecasts, supply procurement and BCA methodologies. 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.