

Feedback Received and IESO Response

North of Dryden Addendum Public Webinar – July 30, 2025

The IESO hosted a public webinar on July 30, 2025, to share the options analysis and draft recommendations for the North of Dryden electrical region. The presentation material and recorded webinar are available on the [engagement webpage](#).

The IESO appreciates the feedback received, which will be considered by the Technical Working Group¹ to develop the Addendum Study. Feedback was received from the following parties and the full submission can be viewed on the North of Dryden [engagement webpage](#):

- [First Mining Gold](#)
- [Frontier Lithium](#)
- [Hydro One](#)
- [Kinross Gold Corporation](#)
- [Northwest Energy Task Force \(NOMA Committee\)](#)
- [Ontario Power Generation](#)
- [Ontario Rivers Association](#)

The section below summarizes feedback received that should be considered in the electricity planning for the North of Dryden Addendum Study.

¹ The Technical Working Group (TWG) consists of IESO as the lead, the local transmitters Hydro One Networks Inc. and Wataynikaneyap Power, and the local distribution companies Hydro One Networks Inc. (Distribution), Hydro One Remotes, Fort Frances Power Corporation, Sioux Lookout Hydro Inc.

Feedback on Draft Recommendations

Feedback / Common Themes	IESO Response
<p>General support for draft recommendation Option 3 Double, including:</p> <ul style="list-style-type: none"> • Frontier Lithium support Option 3 Double as it resolves issue of aging E4D and E2R lines and increases reliability and resilience of transmission from Watay line north of Red Lake and enables more load. • Hydro One supports the draft recommendation to build two 230kV circuits between Dryden, Ear Falls, and Red Lake is supported, with a staged plan needed to align with growth scenarios and a light load study to evaluate reactive support requirements. Additional studies are advised for Pickle Lake reinforcement. Including dynamic studies. • Kinross Gold Corp. support the recommendations for Options 3 Double circuit from Dryden to Red Lake. • NW-ETF supports the Option 3 Double draft recommendation connecting Dryden to Ear Falls to Red Lake with a twin circuit transmission line. 	<p>Thank you for sharing your support for the preferred draft recommendation Option 3 Double, and for the additional feedback to be considered in the final recommendations.</p> <p>The North of Dryden Addendum Study considered different load growth scenarios, including reference and high scenarios. It is important to note that mining load profiles are relatively flat across all hours of the year. This means that even under light load conditions, the mining load does not vary significantly from peak periods.</p> <p>That said, the timing of new projects and when demand materializes in the North of Dryden region could influence system needs. In particular, there may be periods when the new transmission line is in service but the anticipated mining loads have not yet fully ramped up. During these transitional periods, additional reactive support for voltage control may be required. These requirements will be assessed in more detail as part of the next Northwest Ontario IRRP cycle, which is scheduled to begin in Q3 2025, and can also be addressed through Connection Assessment processes as needed.</p> <p>Further, if the E1C corridor is upgraded to 230kV, the IESO recommends operating the circuit in a Normally Open configuration and use it to back up Pickle Lake supply during outages to W54W circuit. If E1C is to operate in parallel to W54W, further dynamic studies might be required. Alternatively, another 230kV circuit parallel to W54W can be constructed to reinforce supply into Pickle Lake.</p>
<p>First Mining Gold offers alternatives for the Option 3 Double draft recommendation, including:</p>	<p>Thank you for this feedback. Springpole Mine’s connection to E1C was studied both at the 115kV and 230kV circuits. Hydro One is currently in the process of refurbishing the existing towers and conductor for E1C under their End-of-Life sustainment program.</p>

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<ul style="list-style-type: none"> • First Mining Gold is concerned that Option 3 Double will not provide service to Springpole Mine (60 MW) located approx. 40km north of E1C transmission line. Offers the following alternatives to provide service to Springpole Mine: <ul style="list-style-type: none"> • upgrade of the E1C line to 230kV from Pickle Lake to Springpole (preferred) • E1C conductor upgrade with normally closed at the Pickle Lake TS to provide service to Springpole at 115 kV • similar to option b, at 230 kV • connection of the E1C to the WS4W (Watay Power) line at a remote connection point east of Slate Falls Nation 	<p>First Mining Gold is encouraged to work with Hydro One and the IESO to ensure the timing of E1C end-of-life replacement aligns with their project timelines and the potential connection point is agreed upon.</p>
<p>Support for other draft recommendations under consideration, including:</p> <ul style="list-style-type: none"> • Ontario Rivers Association (ORA) supports the draft recommendation Option 3 as it more cost-effective and the savings are in the best interest of the ratepayer; ORA does not support Option 3 Double due to cost and possible connection to future hydroelectric projects. 	<p>Thank you for your feedback. When evaluating potential options, the IESO considers a range of factors, including technical performance, cost-effectiveness, timing, system reliability, and community input. Our planning process also incorporates multiple scenarios to ensure the recommended solution is robust under different future conditions.</p> <p>The IESO recommends Option 3 Double because it is the only option that meets long-term reliability requirements in accordance with planning criteria, while also providing the necessary capacity to support economic development in the region. This approach ensures that the transmission system can accommodate anticipated industrial growth, including new mining projects, and deliver long-term benefits for communities and ratepayers.</p>
<p>Feedback on concerns regarding timing and alignment with growth for the</p>	<p>Thank for your feedback. The typical lead time for transmission development is estimated at 5-7 years.</p>

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<p>proposed draft recommendation, including:</p> <ul style="list-style-type: none"> • Frontier Lithium is concerned the proposed timelines present challenges for near-term project development. • First Mining Gold requests details of when various loads will be added to the transmission system. • Kinross Gold Corp. is concerned that the anticipated timeline for the new transmission line to be in service is longer than the Great Bear mining project (and other mining projects) start-date and questions if interim measures can be taken to meet the 2030 load before the in-service date. • NW-ETF argues the timeline to build the draft recommended Option 3 Double is too long and would not meet the energy needs of the mining operations. Advocates that the process to build the line be expediated to meet mining construction timelines. • OPG suggests for future regional planning to prioritize addressing existing transmission congestion that constrains existing generation assets will be key in meeting electricity demand growth sustainable and cost-effectively. 	<p>Once the Addendum is published as final, the selected transmitter will lead the development of the Regional Infrastructure Plan, which details costs and next steps for the wire solution. As part of this process, there will be an environmental assessment and engagement with the community to ensure the community is informed on next steps including project siting and environment and property impacts. This process can be expediated should the government, through its own assessment, deem the project a priority.</p> <p>The final Addendum report will not include project details of when various loads will be added to the system due to confidentiality, however the report will include a timeline for various growth scenarios.</p> <p>The IESO’s Northern Bulk Study was triggered by the governments Powering Ontario’s Growth report which requested the IESO study the removal of bottlenecks between North and South Ontario to enable demand and generation. Recently, the Ministry of Energy and Mines released the province’s Integrated Energy Plan (Energy for Generations) which has prioritized creating a stronger North-South transmission backbone, unlocking new generation opportunities, supporting reliability, and preparing system for future growth.² The Ministry is consulting on a proposal to prioritize the Barrie to Sudbury transmission line and designate a Transmitter to develop a new 500 kV circuit.³ The IESO is also in the process of a new Bulk Study in the North of Sudbury region with an objective to enable new generation. More information can be found here.</p>
<p>Hydro One requested the following information regarding the draft recommendations, including:</p>	<p>Thank you for these clarifications. The draft recommendations were developed from the reference scenario, however draft recommended transmission lines accommodate further growth in the sub-system,</p>

² [Energy for Generations](#), p.68

³ [Enhancing Transmission Capacity Between Northern and Southern Ontario - The Barrie to Sudbury Transmission Lines | Environmental Registry of Ontario](#)

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<ul style="list-style-type: none"> • Details of why Option 1, 2, and 3 are insufficient to meet the needs. • Confirm which forecast scenario are the draft recommendations based on. • Provide a timeline of when high and extreme growth emerges in Red Lake pocket. • Assessment of the feasibility of meeting high growth needs by converting existing E4D line into 230kV line. • Did the cost estimate for Option 3 Double include an extra circuit termination at Dryden, Ear Falls and Red Lake station and/or potential new greenfield stations. 	<p>allowing long-term flexibility to address load across the sub-region and improving reliability. This will poise the system for future growth.</p> <p>Options 1, 2, and 3 were assessed; however, they do not meet long-term load security criteria under the reference forecast. Relying on these options would limit the ability to support future economic development and could create additional challenges if new loads materialize sooner than anticipated. Ensuring a solution that addresses both reliability and growth is essential to meeting the region’s long-term needs.</p> <p>The high and extreme growth demand forecast increases in the early 2030’s. The timeline for various growth scenarios is presented in further detail in the report.</p> <p>The cost estimates for the Option 3 Double circuit includes the cost of additional station work as part of a planning level estimate, informed by costs provided by members of the Technical Working Group.</p>
<p>Feedback on interim or short-term steps to meet demand until transmission is built, including:</p> <ul style="list-style-type: none"> • First Mining Gold recommends that allocation of load to customers not currently utilities their allocated capacity should be considered available to other consumers, in the short term. • Kinross Gold Corp. recommends that steps be taken to ensure the new transmission line is in-service by 2030 to align with mining project start dates. 	<p>Thank you for this feedback. Through the System Impact Assessment (SIA) process the IESO will approve and determine technical requirements to enable connection of any loads in the near term. The SIA application will be able to assess and enable any load connections in the period prior to transmission reinforcement through the use of curtailment or demand response measures.</p>
<p>Feedback on cost allocation for the draft recommendations, including:</p> <ul style="list-style-type: none"> • Kinross Gold Corp. requested confirmation that the draft recommended transmission line would 	<p>Thank you for this feedback. Cost allocation methodology is outside the mandate of the IESO and the scope of IRRP and bulk recommendations. The Ontario Energy Board (OEB) determines cost allocation for transmission investment adhering to the</p>

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<p>be classified as a network asset with costs allocated across ratepayers.</p>	<p>Transmission System Code (TSC) beneficiary pays principles. This process follows two key principles: approved projects must be “just and reasonable,” and the “beneficiary pays” approach.</p> <p>However, the government is considering changes to the transmission cost responsibility framework with the new authorities granted by the Affordable Energy Act. The IESO will support this work as it develops by sharing insights and inputs gleaned from the planning process.</p>
<p>Feedback on next steps for the Addendum’s recommendations, including:</p> <ul style="list-style-type: none"> NW-ETF recommends the Ministry of Energy and Mines declare the Addendums final recommendation as a priority project and designate Hydro One as the constructor/owner to expediate the construction of the new line. 	<p>Thank you for this feedback. Once the Technical Working Group receives all feedback after the draft recommendations webinar, the IESO will publish the final recommendations in the North of Dryden Addendum – Final Report in the engagement website. It will be decision of the Ministry of Energy and Mines to declare the Addendum’s recommendation(s) as a “priority project” thus creating regulatory efficiency. Designation as a priority project still requires the OEB to consider the interests of electricity ratepayers, including project costs and reliability, and the requirement for the designated transmitter to obtain all required government approvals, including consultation.</p>
<p>Feedback commending the regional planning process, including:</p> <ul style="list-style-type: none"> Frontier Lithium appreciates the thoughtfulness behind the options proposed and emphasis on the value to Ontarians. Kinross Gold Corp. commends the IESO for engagement with communities and stakeholders and stated they are pleased to see that the study properly considers the imminent growth in the region. 	<p>Thank you for this feedback. The IESO is pleased with the meaningful participation during the engagement process, culminating in a plan that is supported by a range of impacted communities and stakeholders.</p>

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<ul style="list-style-type: none"> NW-ETF appreciates the current work of the IESO and staff to put together a workable plan for the North of Dryden 	

Feedback on Future Engagements

Feedback / Common Themes	IESO Response
<p>General feedback to enhance future engagements, including:</p> <ul style="list-style-type: none"> First Mining Gold recommends one-on-one engagement with communities and stakeholders, and industry experts. Hydro One suggests a map highlighting loads to visualize the impacts of each option under consideration and a mapping of mines to connection voltages to refine the plan. Kinross Gold Corp. recommends continuing to meet with customers with major load growth plans to understand timelines. ORA requests that the IESO provide verbal or written feedback to concerned shared by stakeholders in the engagement process. NW-ETF requested that the MW capacity of each draft recommended line be shared during engagements. 	<p>Thank you for this feedback. The IESO is committed to helping ensure that interested parties are kept informed and are provided with opportunities for purposeful engagement to contribute to electricity planning initiatives. Throughout the IRRP process, the IESO will invites communities, stakeholders, and interested parties to a series of webinars and targeted outreach activities to seek input at each phase of the regional plan. Through these engagement and outreach activities, communities and other stakeholders have the opportunity to provide feedback on the regional plan and the IESO publicly posts its response to the feedback on the respective engagement page.</p> <p>The IESO is committed to an open and transparent engagement process and appreciates the feedback to improve the process such as providing additional details on the draft recommendations and maps.</p> <p>The IESO will endeavour to continue engagement with interested and impacted parties as the North of Dryden plan is implemented on a one-on-one basis to understand load growth plans. Additionally, as the new Northwest Regional Plan launches later in 2025, there will be further opportunities to engage on regional planning in the northwest more broadly.</p>
<p>NW-ETF request an advanced copy (or email detailing final recommendations) of the final North of Dryden Addendum to assist with discussion with the Ministry of Energy and</p>	<p>The IESO is happy to provide an email detailing the draft recommendations to support the NW-ETF delegation with the Ministry of Energy and Mines at the AMO Conference 2025.</p>

Feedback / Common Themes	IESO Response
Mines at the Association of Municipalities of Ontario in August 2025 to advocate for quick and positive response.	

Feedback on Options Analysis

Feedback / Common Themes	IESO Response
<p>Further considerations in the options analysis, including:</p> <ul style="list-style-type: none"> ORA argues that no new hydro-electric projects should not be considered in the options analysis for the North of Dryden Addendum and in future regional planning due to harmful impacts to the environment including reduced water quality, erosion, sedimentation, contaminations of fish, and threats ecosystems and biodiversity. 	<p>Thank you for this feedback. Hydroelectric power was not screened-in as a non-wire option for the North of Dryden Addendum and will not be considered in the final recommendations. However, hydroelectric potential may be considered in future Northwest regional planning initiatives if the option aligns with the identified system needs and planning criteria. It is important to note that any new infrastructure recommended by the IESO, whether transmission or supply resources, is subject to a range of downstream approvals, permitting processes, and regulatory oversight. These include but are not limited to: Environmental Assessments and Leave to Construct. The IESO's role is to identify infrastructure options that can meet system needs reliably and cost-effectively. The siting, development, and implementation of these options are carried out by project proponents and are subject to rigorous regulatory and environmental review processes to ensure that impacts are appropriately assessed and mitigated.</p>