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Bruno Jesus
Vice President, Planning

August 6, 2021

Leonard Kula
Vice President, Planning, Acquisition & Operations and Chief Operating Officer
1600 – 120 Adelaide St. W.
Toronto, ON M5H 1T1

Sent via email

Dear Mr. Kula:

RE: Electricity Planning in the West of London Area, July 15, 2021

Thank you for the opportunity to participate in the regional electricity planning cycle for the Windsor-Essex region, specifically regarding the electricity resource needs in the West of London area. This area serves as an economic engine and is pivotal to Ontario's economic recovery. Hydro One is committed to continuing to work closely with the Independent Electricity System Operator (IESO), local distribution companies and customers in the area to identify and address the local electricity needs.

In a recent webinar, the IESO noted that the economic growth in the West of London area, particularly within Kingsville-Leamington and Dresden, continues to drive the ever-growing electricity demand forecast such that between 2030 to 2035 there remains a 1,100MW capacity need in the region. A safe and reliable power supply is essential to supporting economic growth. As businesses and industry in southwestern Ontario continue to expand so does the need for more electricity. Hydro One is actively undertaking infrastructure development to accommodate load growth, ensure reliability standards, and alleviate transmission constraints in the area, including work to construct a new double-circuit 230 kilovolt transmission line from our Chatham Switching Station to the future Lakeshore Transmission Station. As of March 2021, Hydro One initiated development work on Phase 1 of the West of London reinforcement, on the direction of the IESO, to construct a new double-circuit 230 kilovolt transmission line from our Lambton Transformer Station to our Chatham Switching Station. Hydro One continues to work tirelessly to connect as many customers as possible with a focus on connecting customers at the new South Middle Road Transformer Station following its completion in mid-2022 through the continued use and expansion of existing remedial action schemes to facilitate connection.

Over the past few years, Hydro One has consistently and repeatedly heard from agricultural, industrial and business customers about the need for accelerated and coordinated infrastructure investments to help them start or expand operations, add local jobs and enable the competitiveness of their products in the market. We continue to hear from customers about the need to address their electricity infrastructure needs in a timely manner, the risk of losing their market share and competitive advantage to industries in neighbouring jurisdictions, which has been heightened by challenges related to the pandemic. Some customers fear that potential delays in reliable, resilient electricity infrastructure will force them to close operations and relocate.

Whilst investments in generation are important parts of the solution to address the electricity needs in the West of London area, given the projected load growth as well as reliability standards, additional investments in transmission are required. Hydro One strongly supports the 500kV reinforcement of the system east of Chatham and regional expansion in the Kingsville-Leamington area to supply the forecasted load, increase transfer capability of the bulk transmission system, enable generation connections, secure and support viable load restoration plans, enable load customer connections locally and as far as Windsor, support provincial needs as well as ensure resiliency of the system.

However, Hydro One has serious concerns over the proposed option of a single-circuit 500kV from Longwood to Lakeshore. The use of a single 500kV circuit will necessitate not only the continued reliance, but expansion, of existing remedial action schemes (RAS) in the region, posing substantial challenges not only to operations and maintenance flexibility, but negatively impacting the reliability and security of supply to customers. From a planning criteria perspective, a single 500kV line may seem like a reasonable solution but decades of experience with single 500kV lines in Northern Ontario have taught planners and especially operators that removing the line from service, planned or unplanned, creates significant challenges for customers and the broader transmission system. With two 500kV circuits running in parallel and on the same tower, the same planning criteria can be met. Operating the line for the next 70 years will provide the required redundancy and flexibility, resiliency and more importantly secure restoration efforts and minimize reliance on RAS. Hydro One is currently facing challenges with the ability to connect customers at South Middle Road Transformer Station as a result of inadequate bulk transmission infrastructure and customers will be forced to accept a lower level of supply reliability with hundreds of megawatts of load armed for load shedding. Given current system limitations, the continued use of RAS along with the temporary exemptions from the Ontario Resource and Transmission Assessment Criteria (ORTAC) are not long-term solutions. Concerted efforts should be placed on actively reducing the reliance on these measures and this can only be achieved through the necessary bulk transmission system reinforcements. Prolonged reliance on ORTAC exemptions and/or delays in transmission reinforcements will compromise reliability, resiliency and security of electricity supply in the West of London area.

We strongly encourage the IESO to undertake further assessments on the benefits of a double-circuit 500kV line from Longwood to Lakeshore which would form the backbone of supply into region that anticipates growth upward of five times the current demand between now and 2035 and provide the required resiliency and reliability for the region.

Hydro One is ready to continue moving forward with urgent infrastructure investments in the West of London area to support economic growth. We are concerned a piecemeal approach to infrastructure reinforcements could delay customer connections and exacerbate reliability and operability issues. Coordinated and accelerated development of the reinforcements in the area is critical to delivering safe and reliable supply in a timely manner to support local industry and communities.

Best Regards,

A handwritten signature in blue ink, appearing to be 'BJ', with a stylized flourish at the end.

Bruno Jesus
Vice President, Planning