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September 30, 2025

Robert Reinmuller
Vice President, Transmission System Planning and Large Customer Accounts
Hydro One Networks, Inc.

Umar Waqas
Vice-President, Grid Modernization
GrandBridge Energy

Dear Robert and Umar:

Urgent letter re: Transmission projects to supply near-term electricity demand growth in Cambridge, Kitchener, Brant, and Brantford

Pursuant to its authority under the *Electricity Act, 1998*, the Market Rules and its Ontario Energy Board ("OEB") issued licence, the IESO sends this letter to Hydro One Networks Inc. ("Hydro One") and GrandBridge Energy with respect to the urgent need for an integrated solution, including transmission infrastructure, that has been identified through the Kitchener-Waterloo-Cambridge-Guelph ("KWCG") Integrated Regional Resource Plan ("IRRP") process.

The IESO is conducting an IRRP process for KWCG in coordination with a technical working group consisting of representatives from Hydro One Transmission and Distribution, Alectra, Centre Wellington Hydro, Enova Power, GrandBridge Energy, Halton Hills Hydro, Milton Hydro, and Wellington North Power (non-IESO representatives are collectively referred to as the "Working Group"). The Terms of Reference for the KWCG IRRP established a phased planning process to ensure that near-term needs could be met in a timely fashion. The IESO has completed the first phase of the IRRP, including meeting with stakeholders in the region and reviewing options to address near and medium-term needs, with consideration of future needs. This phase has identified a need for additional capacity to supply growth in the City of Cambridge, City of Kitchener, County of Brant, and City of Brantford in the near to medium term, as further described in Attachment 1.

In advance of the KWCG IRRP being completed in 2026, the IESO, in conjunction with the Working Group, has determined that the following urgent investments in transmission and distribution infrastructure are needed to meet the identified electricity needs in the region over the next 5 years:

- Investments by Hydro One to complete the following:
  - Development and construction of the required upgrades of 115 kV transmission circuits B5/6C, D7/9F, and F11/12C, with a target in-service date of Q2 2028;

    - Development and initiating construction of a new 500/230 kV autotransformer station in Puslinch, with a target in-service date of 2031;
    - Development and initiating construction of a new 230 kV transmission line from Puslinch to Preston Transformer Station ("TS"), with a target in-service date of 2031; and
- Investments by GrandBridge Energy to complete the following:
    - Development and initiating construction of a new 115 kV TS in Cambridge, with an in-service date of 2028.

The IESO and the Working Group have determined that the above investments, together with additional electricity demand side management ("eDSM"), are the most cost-effective and feasible means to address the urgent needs.

The IESO and the Working Group recommend that Hydro One and GrandBridge Energy proceed immediately with development of their respective projects as described above, including pursuing the required environmental and regulatory approvals, and ordering any long-lead time equipment as necessary to meet the target in-service dates. The IESO recognizes that the above investments were not contemplated in Hydro One's 2023-2027 Joint Rate Application, which was approved by the OEB.

In parallel, the IESO and the Working Group will continue the remaining phases of the IRRP to develop the medium- and long-term plan to address the remaining needs in the KWCG region. The ongoing IRRP will benefit from updated information from Hydro One and GrandBridge Energy throughout the development of the projects specified in this letter.

The IESO requests that Hydro One and GrandBridge Energy provide ongoing updates on the status of their respective projects as detailed in this letter, to inform the ongoing IRRP. The IESO also looks forward to continuing to work with and provide support to Hydro One and GrandBridge Energy in the implementation of these projects.

Yours truly,

Beverly Nollert

Director, Transmission Integration

Cc:

KWCG IRRP Working Group members

Mark Brodie, Hydro One

Chuck Farmer, IESO

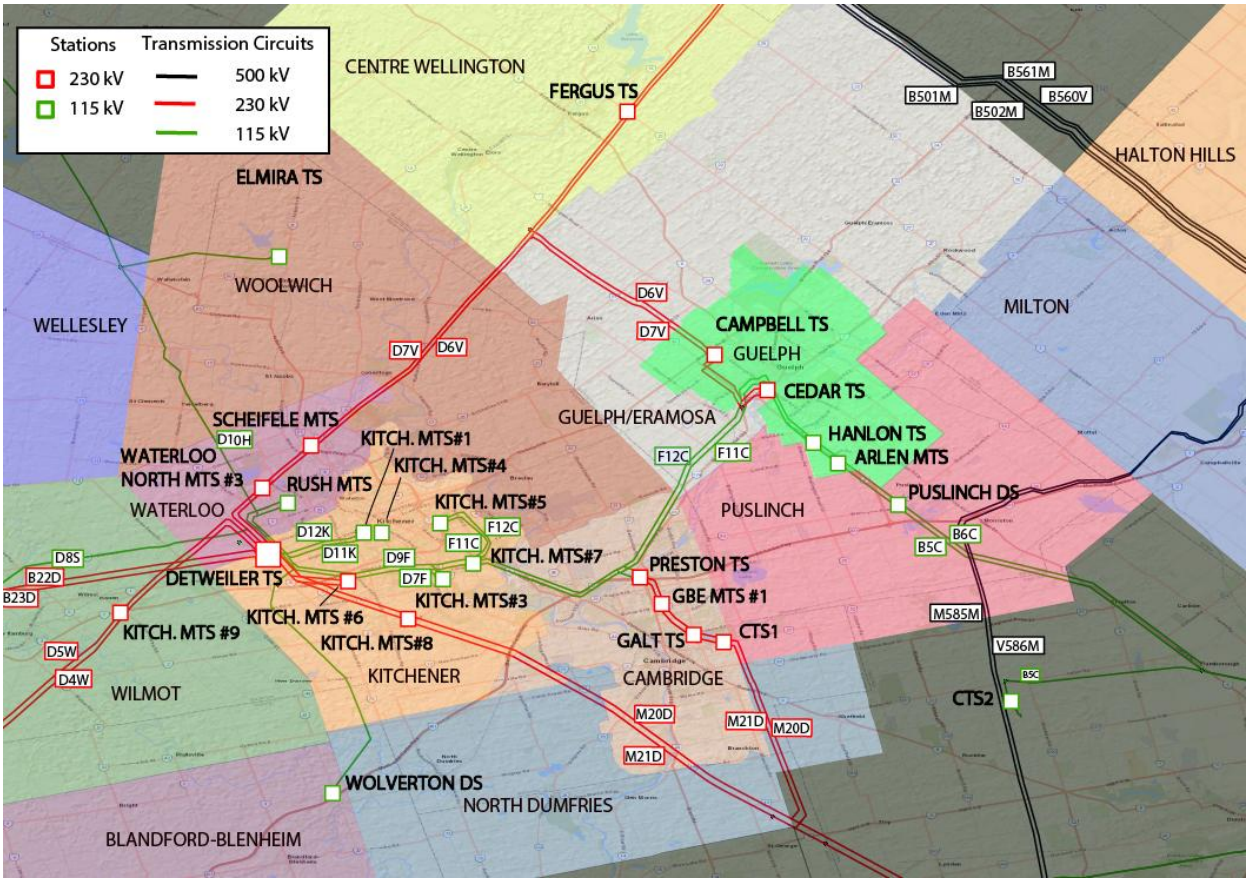
IESO Records

Attachment 1 – Project Objectives and Scope

Background:

The KWCG region, as shown in Figure 1, is a growing load centre that encompasses a 230 kV and 115 kV high voltage network stretching from the Townships of Wilmot to Puslinch, bordering the County of Brant, and up to the Township of Centre Wellington in the north. This system includes a key supply point at the 230/115 kV Detweiler TS, which provides paths of supply from the rest of the province through Orangeville, Buchanan, and Bruce. KWCG also connects to the 500 kV system through the 500/230 kV Middleport TS.

Figure 1 | Map of KWCG Transmission System



The primary urgent load growth in this region is sited near existing 230 kV supply from the Middleport to Detweiler ("MxD") lines servicing Cambridge and Kitchener within the KWCG planning region, and the nearby Brant and Brantford (part of the Burlington to Nanticoke planning region). In northwestern Cambridge, growth is driven by a mixture of large new data centre customers, electrification, and planned residential and industrial development. Demand in Kitchener (supplied by both the MxD sub-system and the KWCG 115 kV sub-system) is also growing due to electrification, as well as residential, commercial, and industrial development.

Nearby in Brant and Brantford, demand is primarily increasing due to residential housing developments and industrial growth. In 2024, the IESO published the Burlington to Nanticoke IRRP, which recommended a new 230 kV transmission connection line and two new stations to supply this increased electricity demand. The IRRP identified connection of these new stations to the MxD lines as the best option, but additional assessments were required before specifying the exact connection point and timing. These were deferred to the KWCG IRRP.

The KWCG IRRP studies, conducted by the IESO with input from the Working Group, stakeholders, and communities, informed the latest electricity demand forecast and identification of needs. These studies concluded that the demand forecast in this area of KWCG cannot be adequately supplied by the existing transmission system in the immediate term.

Project Objectives:

The objective of the prioritized first phase of the IRRP study is to ensure sufficient supply capacity, load restoration, and load security to support growth in the Cities of Cambridge and Kitchener, as well as County of Brant and City of Brantford, given urgent load growth in the areas. Currently, the transmission lines between Detweiler TS and Middleport TS are the primary source of 230 kV supply for the cities of Cambridge and Kitchener. Based on current forecasts (net of already-committed eDSM and distributed generation), the supply capacity and load restoration and security capabilities of these lines are exceeded today.

Alternatives Considered:

The Working Group considered various alternatives for meeting the above objectives, including non-wires options:

- Demand response and distributed generation were determined to be infeasible on the basis that they do not provide load restoration and/or load security capabilities.
- Transmission-connected resources (combinations of wind, solar, and battery storage) were also determined to be infeasible due to the land limitations around Preston TS, where the resources must be sited to meet the supply needs.

Multiple wires options were ruled out on the basis that they would not cost-effectively address the growth requirements in the area:

- Reconductoring or rebuilding 19 km of the existing 230 kV double-circuit lines between Preston TS and Galt junction.
- Adding a switching station at Galt junction, with new double-circuit 230 kV lines to Detweiler TS or Middleport TS, as well as a new 230 kV connection line to Cambridge.
- Building new double-circuit 230 kV lines from Middleport TS to Galt junction to Preston TS.
- Building new double-circuit 230 kV lines from Detweiler TS to Galt junction to Preston TS.

The analysis of the different alternatives will be detailed in the KWCG IRRP report, to be published in Q1 2026.

Project Scope:

The IRRP analysis found that an integrated solution of additional eDSM and wires reinforcements is the most cost-effective way to supplying urgent capacity needs in the region. While additional eDSM should be targeted to the KWCG 115 kV and MxD sub-systems, in tandem, the IESO, together with the Working Group, has determined that the following urgent investments by Hydro One are needed:

- Upgrading the 115 kV circuits B5/6C, D7/9F, and F11/12C with a target in-service date of Q2 2028 and cost of $40 million to $50 million;
- Development of a new 500/230 kV autotransformer station in Puslinch, as well as a new double-circuit 230 kV transmission line from Puslinch to Preston TS, with a normally open point at Galt junction, with a target in-service date of 2031 and cost of $340 million.

These costs are Hydro One's best planning-level estimates based on historical costs and are subject to project-specific restrictions or limitations that could emerge during implementation as these projects are further scoped and studied.

The following urgent investment by GrandBridge Energy is also needed:

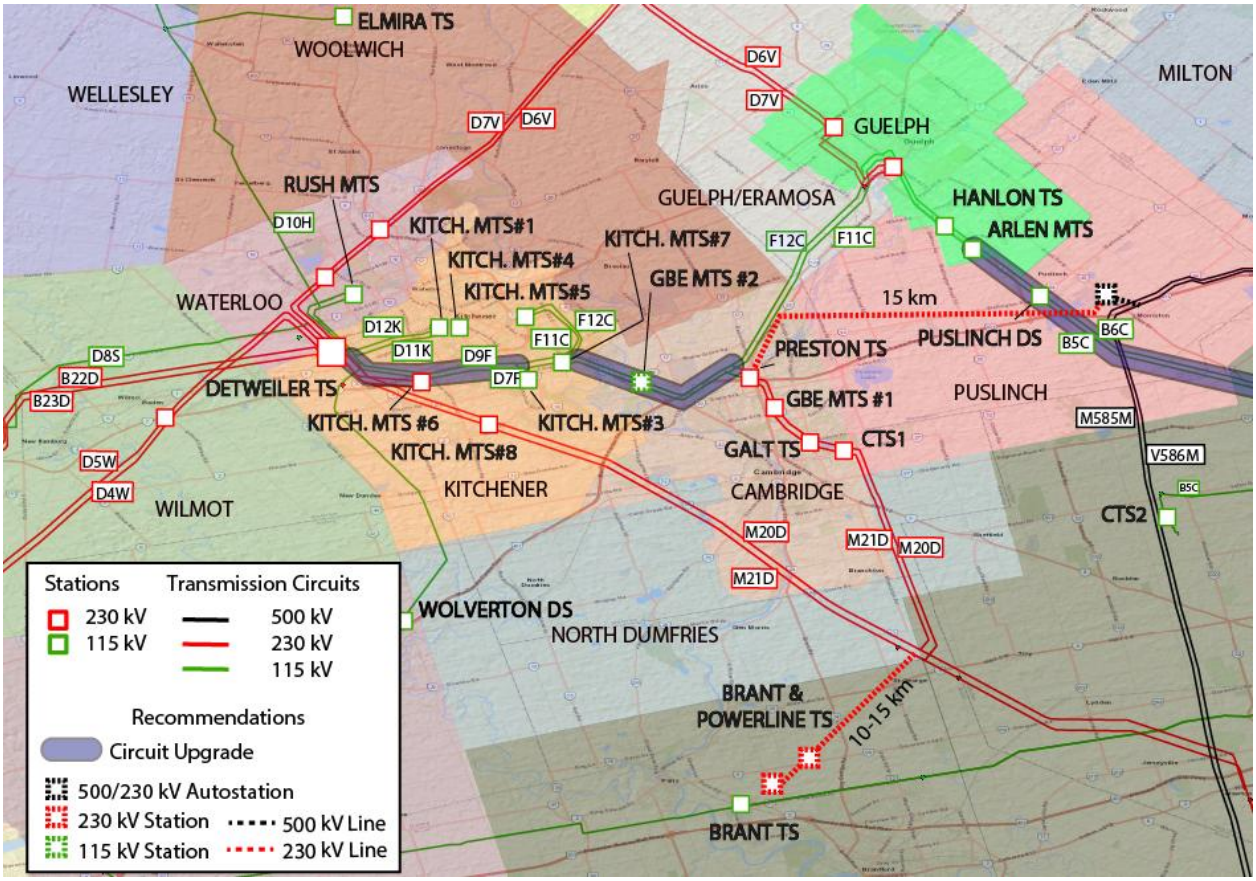
- Building a new 115 kV transformer station located in Cambridge, with an in-service date of 2028 and cost of $40 million.

With the above transmission projects, additional eDSM, and based on the IRRP analysis to date, up to 75 MW of load can be supplied from the new GrandBridge Energy municipal TS ("MTS"). As other needs and options are assessed in the KWCG IRRP, or as other system changes occur, this limit may be impacted and is subject to further study.

The recommendations at this time do not include a 230 kV line extension to the GrandBridge Energy MTS #2 site. However, GrandBridge Energy may choose to explore a dual-voltage TS with a primary operating voltage of 115 kV and 230 kV, and a secondary distribution voltage of 27.6 kV, at an additional cost of $2 million. The 230 kV capability may offer flexibility for future load connection requirements, which could be considered in subsequent planning cycles as circumstances evolve.

Additionally, the transmission projects would enable connection of two new 230 kV transformer stations at Galt junction by the time that the Puslinch reinforcements are in-service. This enables the offloading of the 115 kV Brant TS and Powerline TS, as recommended by the 2024 Burlington to Nanticoke IRRP to address immediate capacity needs in the Brant 115 kV Extended Area.

Figure 2 | Illustrative Map of KWCG Recommendations[1]



These measures were determined to be the most cost-effective, technically feasible solution to address the near- and medium-term needs for station and supply capacity, as well as load restoration and security capabilities. Upgrading the 115 kV lines provides increased capability that allows for the quicker connection of load at the new GrandBridge Energy municipal TS, while also supporting existing customers and projected load growth in the Kitchener area. The 230 kV reinforcements, developed in tandem, provide additional supply capacity that is required.

Due to the timing of the needs, and considering typical development timelines for transmission projects, Hydro One and GrandBridge Energy should work towards the targeted in-service dates listed above. It is the Working Group's understanding that a Class Environmental Assessment process will be required for certain projects, as well as Leave to Construct approval from the OEB. The IESO will endeavor to provide support to Hydro One and GrandBridge Energy in these activities.

The project and its related costs and timelines have been discussed with Hydro One and GrandBridge Energy. The IESO understands that, if approvals are received, an in-service date of 2031 for the Puslinch autotransformer station and 230 kV line to Preston TS is achievable. An accelerated implementation as early as 2029 would enable the capacity which is needed as soon as possible.

If there is any delay or suspension of the targeted in-service date and/or project costs are forecast to exceed estimates made at this time, Hydro One will notify the IESO as soon as possible so that the

[1] Brant TS, Powerline TS, and new 230 kV connection lines as recommended by the Burlington to Nanticoke IRRP.

assessment of the KWCG reinforcement plan can be updated appropriately. Temporary mitigation measures, such as operating procedures, remedial actions, or temporarily allowing higher operating ratings, may also be required if the reinforcements are delayed or less eDSM than expected can be implemented. Certain mitigating measures may need to be supported by temporary exemptions to reliability standards. Alternatively, loading at the new 115 kV station in Cambridge and new 230 kV stations in Brant may be limited in the interim. The long-term capacity of these stations may also be refined as the Working Group continues to review other needs in the KWCG region and develop the IRRP for a 20-year period, for publication in 2026.