



Expedited System Impact Assessment Report

Final Report - Public

CAA ID: 2026-EX1325

Project: K1 & K2 Refurbishment

Connection Applicant: Hydro One Networks Inc.

August 27, 2026



Acknowledgement

The IESO wishes to acknowledge the assistance of Hydro One in completing this assessment.

Disclaimer

This report has been prepared solely for the purpose of assessing whether the connection applicant's proposed connection with the IESO-controlled grid would have an adverse impact on the reliability of the integrated power system and whether the IESO should issue a notice of conditional approval or disapproval of the proposed connection under Chapter 4, section 6 of the Market Rules.

Conditional approval of the project is based on information provided to the IESO by the connection applicant and Hydro One at the time the assessment was carried out. The IESO assumes no responsibility for the accuracy or completeness of such information, including the results of studies carried out by Hydro One at the request of the IESO. Furthermore, the conditional approval is subject to further consideration due to changes to this information, or to additional information that may become available after the conditional approval has been granted.

If the connection applicant has engaged a consultant to perform connection assessment studies, the connection applicant acknowledges that the IESO will be relying on such studies in conducting its assessment and that the IESO assumes no responsibility for the accuracy or completeness of such studies including, without limitation, any changes to IESO base case models made by the consultant. The IESO reserves the right to repeat any or all connection studies performed by the consultant if necessary to meet IESO requirements.

Conditional approval of the proposed connection means that there are no significant reliability issues or concerns that would prevent connection of the proposed project to the IESO-controlled grid. However, the conditional approval does not ensure that a project will meet all connection requirements. In addition, further issues or concerns may be identified by the transmitter(s) during the detailed design phase that may require changes to equipment characteristics and/or configuration to ensure compliance with physical or equipment limitations, or with the Transmission System Code, before connection can be made.

This report has not been prepared for any other purpose and should not be used or relied upon by any person for another purpose. This report has been prepared solely for use by the connection applicant and the IESO in accordance with Chapter 4, section 6 of the Market Rules. This report does not in any way constitute an endorsement of the proposed connection for the purposes of obtaining a contract with the IESO for the procurement of supply, generation, demand response, demand management or ancillary services.

The IESO assumes no responsibility to any third party for any use, which it makes of this report. Any liability which the IESO may have to the connection applicant in respect of this report is governed by Chapter 1, section 13 of the Market Rules. In the event that the IESO provides a draft of this report to the connection applicant, the connection applicant must be aware that the IESO may revise drafts of this report at any time in its sole discretion without notice to the connection applicant. Although the IESO will use its best efforts to advise you of any such changes, it is the responsibility of the connection applicant to ensure that the most recent version of this report is being used. The IESO provides no comment, representation or opinion, express or implied, with respect to who should bear the cost of IESO requirements for connection in this report and disclaims any liability in connection therewith.



Project Description

Hydro One Networks Inc. (HONI) (the “connection applicant” and the “transmitter”) is proposing to refurbish approximately 13.7 km of the 115 kV transmission line K2. K2 is a radial circuit emanating from Kirkland Lake Transformer Station (TS). The project also includes the decommissioning of the remaining approximately 1.4 km of the idle 115 kV K1 transmission line.

The project permanent in-service date is Q4 2027.

Notification of Conditional Approval

This assessment concludes that the proposed connection of the project is expected to have no material adverse impact on the reliability of the integrated power system, provided that all requirements in this report are implemented. Therefore, the assessment supports the release of the Notification of Conditional Approval for connection of the project.

Appendix A: General Requirements

The connection applicant shall satisfy all applicable requirements specified in the Market Rules, the Transmission System Code and reliability standards. This section highlights some of the general requirements that are applicable to the project.

1. The connection applicant must notify the IESO at connection.assessments@ieso.ca as soon as they become aware of any changes to the project scope or data used in this assessment. The IESO will determine whether these changes require a re-assessment.
2. The connection applicant shall ensure that the BPS elements are in compliance with the applicable NPCC criteria and the BES elements are in compliance with the applicable NERC reliability standards. To determine the standard requirements that are applicable, the IESO provides mapping tools titled “NPCC Criteria Mapping Spreadsheet” for BPS elements and “NERC Reliability Standard Mapping Tool/Spreadsheet” for BES elements at the IESO’s website of [Applicability Criteria for Compliance with Reliability Requirements](#).

Note, the connection applicant may request an exception to the application of the BES definition. The procedure for submitting an application for exemption can be found in Market Manual 11.4: “[Ontario Bulk Electric System \(BES\) Exception](#)” at the IESO’s website.

The IESO’s criteria for determining applicability of NERC reliability standards and NPCC Criteria can be found in the Market Manual 11.1: “[Applicability Criteria for Compliance with NERC Reliability Standards and NPCC Criteria](#)” at the IESO’s website.

Compliance with these reliability standards will be monitored and assessed as part of the IESO’s Ontario Reliability Compliance Program. For more details about compliance with applicable reliability standards, the connection applicant is encouraged to contact orcp@ieso.ca and also visit the [Ontario Reliability Compliance Program webpage](#).

However, like any other system element in Ontario, the BPS and BES classifications of the project will be periodically re-evaluated as the electrical system evolves.

3. The connection applicant shall ensure that the project’s equipment meet the voltage requirements specified in section 2.4.2 and section 2.4.3 of the Ontario Resource and Transmission Assessment Criteria (ORTAC).
4. The connection applicant must initiate the IESO’s Market Registration process at least four months prior to the commencement of any project related outages. Once the IESO’s Market Registration process has been successfully completed, the IESO will provide the connection applicant with a Registration Approval Notification (RAN) document, confirming that the project is fully authorized to connect to the IESO-controlled grid. For more details about this process, the connection applicant is encouraged to contact IESO’s Market Registration at market.registration@ieso.ca.

The connection applicant is required to provide “as-built” equipment models and data for the project during the IESO Market Registration process. If the “as-built” equipment data differ materially from the ones used in this assessment, then the IESO may decide that further analysis of the project is required

5. As per Market Manual 1.4: Connection Assessment and Approval, the connection applicant will be required to provide a status report of its proposed project with respect to its progress upon request of the IESO using the [project status report form](#) on the IESO website. Failure to comply with project status requirements listed in Market Manual 1.4: Connection Assessment and Approval will result in the project being withdrawn.
6. As per Market Manual 1.4: Connection Assessment and Approval, the connection applicant will be required to provide notification to the IESO (Connection.Assessments@ieso.ca) when the project has reached a milestone to deem the project as committed. A common method of delivering this notification is by completing the project status report form (IMO-FORM-1399) A committed project is a project that has demonstrated to the IESO a high probability of being placed into service. Committed projects will be included, together with all projects that are in service, at the time of the SIA, in the basecase assumptions for the evaluation of all projects that are not yet committed, irrespective of the SIA status of those projects. As a result of this inclusion, projects that are not committed could receive additional requirements for connection or may be deemed withdrawn by the IESO.

To have your project recognized as committed, refer to Market Manual 1.4: Connection Assessment and Approval, Section 3.3, which outlines the criteria for a project to be designated as committed.



Appendix B: Project Data (Confidential)

Appendix C: Technical Assessments (Confidential)

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