

June 14, 2005  
Mr. Jim Santaguida  
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Hydro One Networks Inc.  
483 Bay Street, 15<sup>th</sup> Floor – North Tower  
Toronto, ON.,  
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Dear Mr. Santaguida:

***2005 Thorold T.S. Switch Project (T2-K & T1-K)***  
***Notification of Approval of Connection Proposal***  
***CAA ID Number: 2005-EX229***

Thank you for the detailed information regarding the proposed modifications for various components at Thorold T.S. The T2-K disconnect switch is defective and replacement parts are unavailable due to its vintage. The proposed work includes removing the T2-K switch (and similar vintage T1-K switch) and replacing them with solid buswork. Additional work involves upgrading the transformer surge protection from rod gaps to surge arresters and replacing various support insulators. A single line diagram showing the various components is attached.

From the information provided, our review concludes that the proposed changes will not result in a material impact on the reliability of the IESO-controlled grid. The IESO is therefore pleased to grant **conditional approval** for the modification detailed in the attached assessment report. Any material changes to your proposal may require re-assessment by the IESO in accordance with Market Manual 2.10, and may nullify your conditional approval.

**Final approval** will be granted upon successful completion of the IESO Facility Registration process. During facility registration you will be expected to demonstrate that you have fulfilled the requirements and the modification is in line with the proposal assessed by the IESO. Please contact [facility.registration@ieso.ca](mailto:facility.registration@ieso.ca) if you have not received a Facility Registration Summary package within the next 10 days.

For further information, please contact the undersigned.

Yours truly

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## **ASSESSMENT SUMMARY**

### **Hydro One Networks Inc.**

*2005 Thorold T.S. Switch Project (T2-K & T1-K)*  
*CAA ID Number: 2005-EX229*

#### **1.0 GENERAL DESCRIPTION**

The T2-K disconnect switch at Thorold T.S. is defective whereby the drive motor and pallet switches are broken. Due to the age of this switch, replacement parts are unavailable to make repairs. A similar switch is also in service at Thorold T.S. - T1-K, which could potentially pose similar problems in the future. The proposed work will include removing both switches (T2-K and T1-K) and replacing them with solid busswork. In order to provide isolation to the transformers, existing “upstream” switches 44-D1A and 44-D3A will be utilized and incorporated into the protection scheme. Additional work involves upgrading the transformer surge protection from rod gaps to surge arresters and replacing various support insulators. Figure 1 shows a single line diagram with the various components.

#### **2.0 PROPOSED MODIFICATION**

The scope of work is divided into the following components:

1. Removal of T1-K disconnect switch and replace with solid bus. Bus should be the same size as existing buswork. The support insulators will also be replaced.
2. Removal of T2-K disconnect switch and replace with solid bus. Bus should be the same size as existing buswork. The support insulators will also be replaced.
3. Utilize upstream disconnect switches 44-D3A and 44-D1A to provide isolation to the transformers. Update protection scheme to incorporate these two switches.
4. Replace cantilever insulators associated with T2-K disconnect switch.
5. Replace bus support insulators mounted on top of the transformer conservative tanks.
6. Remove existing rod gaps on both transformers and replace them with surge arresters.

#### **3.0 ASSESSMENT**

The proposed modification will have no adverse impact on the IESO-controlled grid.

#### **4.0 NOTIFICATION OF APPROVAL**

It is therefore recommended that a Notification of Approval of the Connection Proposal be issued.

FIGURE 1: Single Line Diagram- Thorold T.S. Switch Project

