



# **CONNECTION ASSESSMENT & APPROVAL PROCESS**

## ***ASSESSMENT SUMMARY***

*Applicant: Hydro One Networks Inc.*

*Project: Changes at Hearn TGS 115kV Switchyard  
De-merger project*

***CAA ID No. 2002-EX023***

***Long Term Forecasts & Assessments Department  
Consistent Information Set Department***

*Date: 25<sup>th</sup> March 2002 (Revised: 27<sup>th</sup> March 2002)*

## ASSESSMENT SUMMARY

### HYDRO ONE NETWORKS Inc.

#### *HEARN TGS - De-Merger Project: Modifications to the 115kV Connections & Relay Protection*

### **1.0 GENERAL DESCRIPTION**

Under the Hearn De-Merger Project, Hydro One Networks Inc. is in the process of separating their facilities at Hearn TGS from those that are owned by Ontario Power Generation Inc.

The in-service date of the proposed work is March 31, 2003.

### **2.0 PROPOSED CHANGES**

Diagram 1 shows the work that is to be covered by the De-merger Project, and the details are as follows:

- The two 115kV breakers 1A2 and 3A4 are to be locked **closed**.
- The existing bus-zone protection is to be modified to cover the following zones:
  - A1P8 to 2A3
  - 2A3 to 4A5
- The disconnect switches associated with the following breakers are to be locked **open**:
  - T1A
  - T2A
  - T5H2JK
  - T4A
  - T5A5
  - T6A
  - T7P
  - T8P
- A portion of the remaining buswork between the T5A5 breaker and the position originally occupied by the T5 step-up transformer (the transformer has already been removed) is to be removed.
- A new relay room is to be established within the 115kV switchyard at Hearn TGS and the protective relaying for the Hydro One facilities is to be relocated into the new building.

Diagram 2 shows the facilities that will remain effective following completion of the de-merger Project. The nomenclature of the remaining breakers may change depending on a decision within Hydro One regarding the nomenclature that is to be adopted for the individual busbars.

The information that is currently telemetered to the IMO is to be revised to reflect the revised configuration of the station.

### **3.0 ASSESSMENT**

While the primary objective of the proposed changes is to simplify the protective relaying at Hearn TGS, they also align with the recommendations of the Connection Assessments for the Hearn New generation Project and the Project to Quarter Terauley TS. These Assessments recommended that breakers 1A2 (or A1P8) and 3A4 (or 2A3) be removed and their positions by-passed by installing new 115kV buswork.

However, until a decision is made on the future supply options for the GTA, Hydro One prefers to defer the removal of the two breakers, and instead to operate them 'permanently' closed.

This work is not expected to have any adverse impact on the IMO-controlled grid and therefore the proposed modifications to the existing connection arrangement are approved.

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

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