CONNECTION ASSESSMENT & APPROVAL PROCESS

ASSESSMENT SUMMARY

Applicant: *Hydro One Networks Inc.*

Project: *Replacement of 230kV Breaker AL25 at Sarnia-Scott TS*

CAA ID No. 2002-EX098

Long Term Forecasts & Assessments Department
Consistent Information Set Department

Date: *6th December 2002*

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ASSESSMENT SUMMARY

HYDRO ONE NETWORKS Inc.

SARNIA-SCOTT TS - Replace existing 230kV breaker AL25

1.0 GENERAL DESCRIPTION

The upgrades that are being undertaken to increase the fault level rating of the buswork at Sarnia-Scott TS require changes to the busbar protection. The existing CTs associated with the 230kV circuit breaker AL25 have a ratio of 1600/5. This ratio will not be adequate for the enhanced fault level rating at Sarnia-Scott TS and the CTs will need to be replaced with units having a ratio of 1000/1.

Installing new bushings on the breaker would require an outage of four to eight weeks. In view of the scheduling difficulties, Hydro One has therefore decided to replace the breaker with a new unit, for which an outage of approximately two weeks will be required.

This work is tentatively scheduled to be completed during May/June 2003.

2.0 PROPOSED FACILITIES

The details for the new 230kV breaker are as follows:

Specification for the SF_6 Breaker

- Identifier: AL25
- Manufacturer: Alstom
- Maximum operating voltage: 250kV continuous
- Continuous current rating: 3000A
- Fault interrupting capability: 63kA
- Opening time: 25msec.
- Closing time: 110msec.

  [In accordance with normal Hydro One practice, the breaker is designed to trip and lock open upon detection of a low gas pressure condition. If the affected breaker should fail to open, then breaker failure protection will be initiated.]

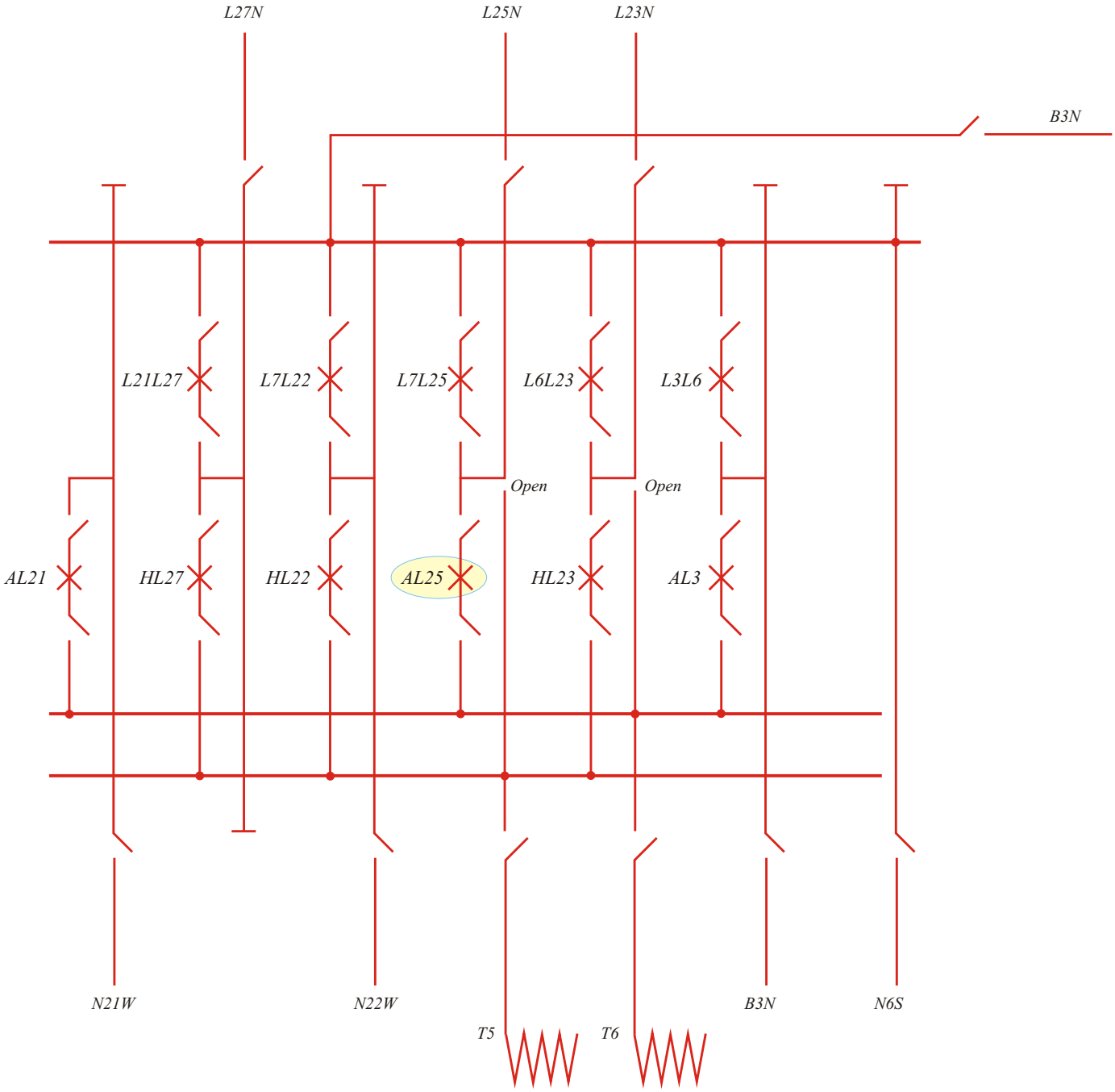
The existing breaker is rated at 39.7kA symmetrical & 46.2kA asymmetrical.

3.0 ASSESSMENT

Although the new breaker has a superior fault interrupting capability to that of the existing breaker, the replacement is essentially a like-for-like exchange, and will therefore have no adverse impact on the IMO-controlled grid.

4.0 NOTIFICATION OF APPROVAL

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



Replacement of Breaker AL25 at Sarnia-Scott TS

DIAGRAM 1

6th December 2002