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System Operator
Station A, Box 4474
Toronto, Ontario M5W 4E5
t 905 855 6100
www.ieso.ca

January 31, 2006

Mr. Tom Kydd
Acting Manager Station Sustainment Programs
Hydro One Networks Inc.
483 Bay Street, 15th Floor – North Tower
Toronto, ON.,
M5G 2P5

Dear Mr. Kydd:

***Nanticoke T.S. - Breaker Replacement Program
Notification of Approval of Connection Proposal
CAA ID Number: 2004-EX196***

Thank you for the data that you provided for the 230 kV air blast circuit breakers that are scheduled to be replaced with dead tank SF6 breakers at Nanticoke T.S. The existing breakers are considered to be at the end of their useful life and the breaker replacement work is scheduled for completion in 2006.

Since the ratings of the replacement units are the same or higher than the original breakers, we have concluded that this work will have no material adverse effect on the IESO-controlled grid.

The IESO is therefore pleased to grant **conditional approval** for the replacement of the 230 kV circuit breakers listed in the attached assessment report.

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 equipment you have installed is materially unchanged from the proposal assessed by the IESO. Contact 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

A handwritten signature in black ink that reads "Michael Falvo".

Michael Falvo
Manager - Transmission Assessments & Performance
Telephone: (905) 855-6209
Fax: (905) 855-6129
E-mail: mike.falvo@ieso.ca
cc: IESO Records

All information submitted in this process will be used by the IESO solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated polices, standards and procedures and in accordance with its licence. All information submitted will be assigned the appropriate confidentiality level upon receipt.



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Nanticoke T.S. Breaker Replacement Program (CAA ID Number: 2004-EX196)

Hydro One Networks Inc. acknowledges receipt of the System Impact Assessment Report setting out the IESO requirements for final approval, and commits to fulfill these requirements, and all other applicable Market Rules, before receiving final approval to connect to the IESO-controlled grid.

Dated: _____

Per: _____

Name: _____

Title: _____

ASSESSMENT SUMMARY

HYDRO ONE NETWORKS Inc.

Nanticoke T.S. Breaker Replacement Program (CAA ID Number: 2004-EX196)

1.0 GENERAL DESCRIPTION

During 2006 Hydro One proposes to replace a number of 230 kV air blast circuit breakers that have reached the end of their useful life at Nanticoke T.S. Section 2.0 contains a table showing the identifiers of the breakers that are being replaced, as well as the ratings of the new units. Figure 1 shows these breakers in the single line diagram.

2.0 PROPOSED FACILITIES

The details for the new breakers are as follows:

Identifier	Type of Breaker (proposed)	Rated Voltage (proposed)	Continuous Current (existing)	Continuous Current (proposed)	Interrupting Capability (existing)	Interrupting Time (existing)	Interrupting Capability (proposed)	Interrupting Time (proposed)
P1P2	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
P1L22	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
P1F	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
L1L22	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
L5F	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
K1L1	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
K1L5	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
K2E	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
K1K2	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
K2L21	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
L2E	SF6	250 KV	2000 A	2000A	54.3 kA	21 ms	63 kA	2 cycles or less
L6L21	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
P2L6	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less
P2L2	SF6	250 KV	2000 A	2000 A	54.3 kA	21 ms	63 kA	2 cycles or less

3.0 ASSESSMENT

The assessment indicates that the ratings of the new breakers are either higher or at least the same as the existing breakers and that the interrupting capability of the new breakers is adequate for the short circuit levels experienced in the current system.

The Transmission System Code (Appendix 2) recommends that all 230 kV breakers have an interrupting capability of 63 kA. The new 230 kV SF6 breakers at Nanticoke T.S. are rated at the performance standard set in the TSC. The 2003 Short Circuit Survey prepared by Hydro One indicates that the current maximum short circuit levels at Nanticoke T.S. are around 46.9 kA and the system in that area has not suffered major modifications in the last years, it can be concluded that the interrupting capability of the new breakers is adequate. The TSC also recommends that 230 kV breakers have an interrupting time of less than 3 cycles. As indicated in the table above, the breakers have an interrupting time of 2 cycles or less, thus meeting the TSC requirement. Although the new breakers are slightly slower than the exiting breakers, the overall increase in fault interruption time (by about 12 ms) is not considered to affect adversely the reliability of the system.

The installed breakers will operate and remain in their original configuration and location.

The Market Rules (Chapter 4 section 7.4) require that each transmitter shall provide the IESO on a continual basis with on-line monitored quantities as specified in Appendix 4.16. For this proposed project, the IESO will continue to require the status and operating quantities associated with the breakers. Hydro One will be required to meet the IESO's on-line monitoring requirements and meet Transmission System Code requirements with respect to protection systems.

In addition to operating continuously at 250 kV the new breakers must be capable of remaining closed (no automatic tripping) during the re-preparation period (30 minutes or less) following recognized contingencies when system voltages are above 250 kV, but are not required to interrupt fault currents when system voltages are above 250 kV.

These replacements represent like-for-like exchanges or improvements of existing equipment and will have no material adverse effect 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.

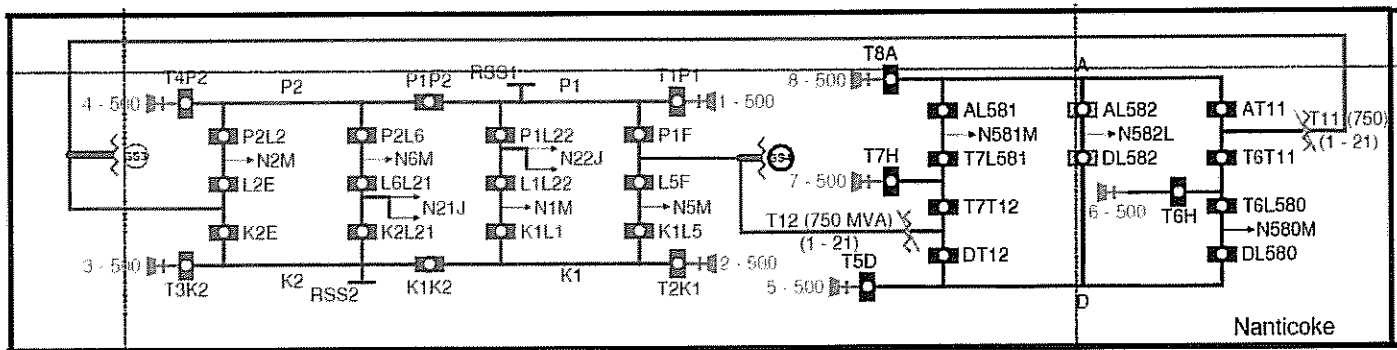
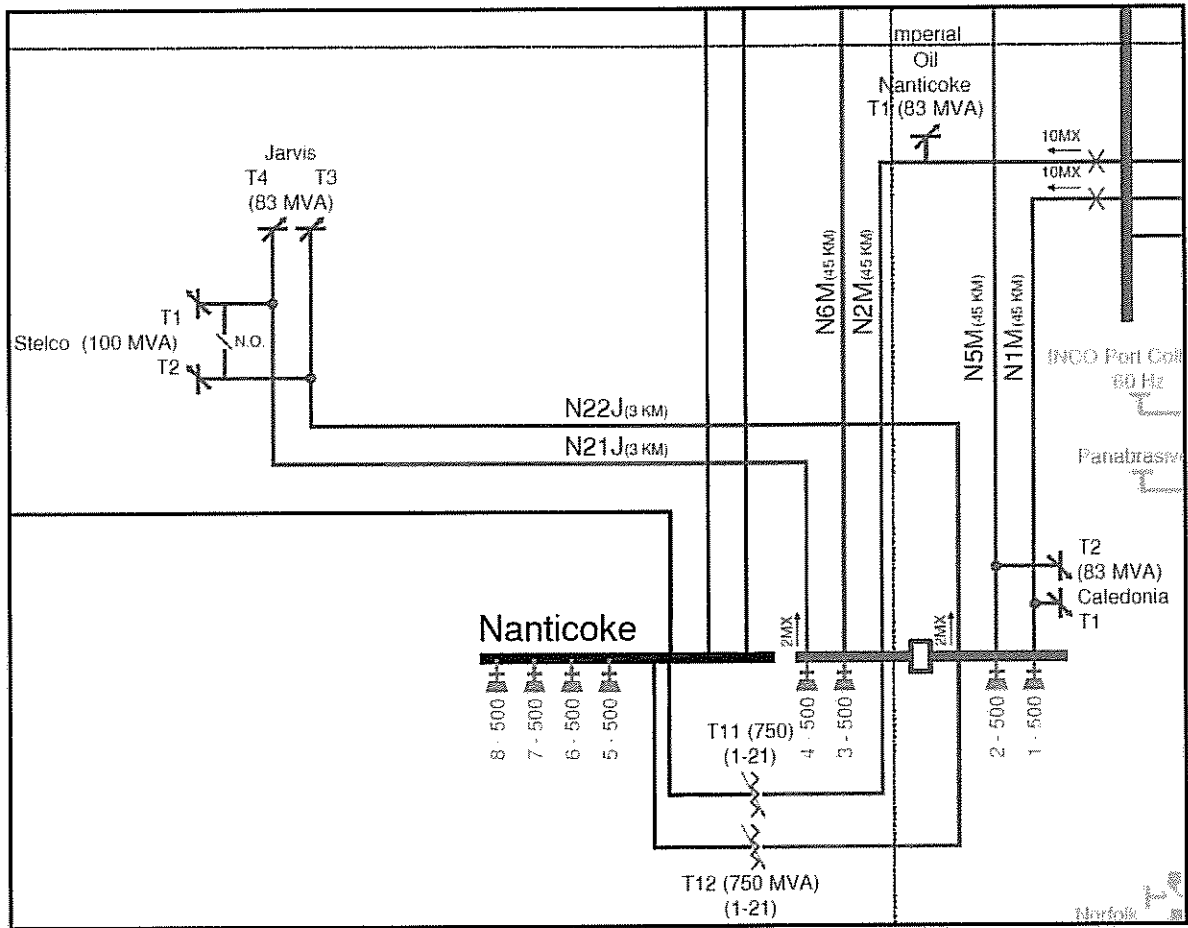


Figure 1: Single Line Diagram – Nanticoke T.S.