

Final Draft Report

Chat Falls TS - T20-Q4C & 2-Q4C Circuit Switcher Replacements CAA ID Number: 2006-EX301

ASSESSMENT SUMMARY

Hydro One Networks Inc.

1.0 GENERAL DESCRIPTION

Hydro One is proposing to replace the existing 230 kV T20-Q4C & 2-Q4C air break disconnect switches with circuit switchers at Chats Falls TS. The existing configuration is shown in Figure 1. The planned in-service date is by the end of August 2007.

2.0 PROPOSED MODIFICATION

The technical specifications for the replacement circuit switchers are given below.

T20-Q4C & 2-Q4C Circuit Switchers at Chats Falls TS		
	Old Circuit Switchers	Replacement Circuit Switchers
Configuration	3 phase	3 phase
Nominal Voltage	230 kV	230 kV
Maximum Design Voltage	not available	345 kV
BIL	not available	1,300 kV
Switching Duty	7 times every day	7 times every day
Load Interrupting Current	1,200 A	2,000 A
Short Time Current	not available	50 kA for 3 seconds
Momentary Current	not available	80 kA peak
Manufacturer	Kearney	S&C or Southern States
Serial Number	not available	not available

3.0 ASSESSMENT

This replacement represents an improvement of existing equipment and will have no material adverse effect on the IESO-controlled grid.

4.0 CONCLUSIONS

It can be concluded that these circuit switchers represent improvements to existing equipment. The circuit switchers will meet the market rules with respect to maximum continuous voltage and will not result in a material adverse effect on the reliability of the IESO-controlled grid.

5.0 REQUIREMENTS

The proponent must notify the IESO as soon as it becomes aware of any changes to the assumptions made in the connection assessment. The IESO will determine whether these changes require a re-assessment.

Hydro One is required to meet the transmitters' requirements with respect to protection systems for the circuit switchers and coordination with the existing protection systems, as outlined in the Transmission System Code.

The Market Rules (Chapter 4 section 7.4) require that each transmitter shall provide the IESO on a continual basis with on-line monitored status as specified in Appendix 4.16. Hydro One will be required to meet the IESO's on-line monitoring requirements.

6.0 NOTIFICATION OF CONDITIONAL APPROVAL

It is therefore recommended that a Notification of Conditional Approval of the Connection Proposal be issued, subject to the requirements detailed above.