

Final Draft Report
Expedited System Impact Assessment
Hydro One Networks Inc.
230 kV Circuits L23N, V41N & V43N – Reconfiguration of Phase Positions
CAA ID 2007-EX365

1.0 Introduction

Hydro One proposes to reconfigure the phase positions of 230 kV circuits L23N, V41N and V43N on seven H-frame structures (towers #3 to #9) north of Lasalle Road and south of Sarnia Scott transformer station (TS) in the City of Sarnia. The planned in-service date of this project is the third quarter of 2008.

Figure 1 depicts the 230 kV circuits between Lambton TS and Sarnia Scott TS and the location of the H-frame structures.

For the industrial customers connected off these circuits, the proposed reconfiguration involving seven spans is expected to reduce their exposure to double circuit contingencies, and thereby, improve reliability.

The purpose of this expedited system impact assessment is to examine if the proposed reconfiguration of the phase positions will create any new double circuit contingencies that need to be monitored and respected by the IESO.

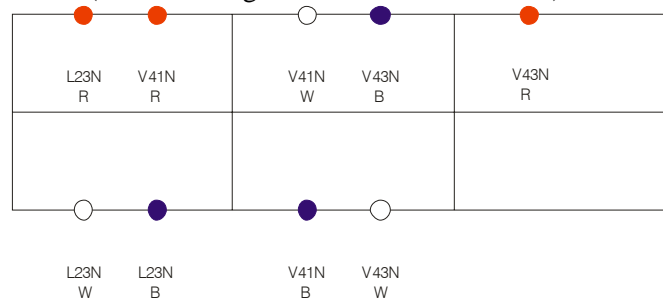
2.0 Assessment

Presently, the IESO monitors and respects the following double circuit contingencies involving L23N, V41N and V43N between Lambton TS and Sarnia Scott TS:

- L23N + V41N
- L23N + V43N (from tap to Shell TS and Nova St. Clair TS – located south of Lasalle Road)
- V41N + V43N

The existing phase position configuration of L23N, V41N and V43N on the H-frame structures north of Lasalle Road and south of Sarnia Scott TS is shown in Figure 2.

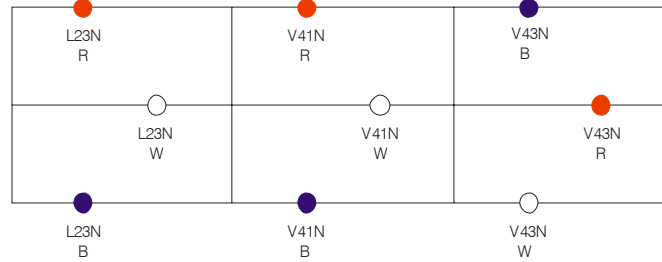
Figure 2 – Existing Phase Position Configuration on H-frame Structures
 (View looking north from Lasalle Road)



Since L23N and V41N are adjacent to each other and V41N and V43N are adjacent to each other, the IESO-controlled grid is operated by respecting the possibility of a ‘L23N + V41N’ or ‘V41N + V43N’ double circuit contingency.

The proposed phase position reconfiguration of L23N, V41N and V43N on the H-frame structures is shown in Figure 3.

Figure 3 – Proposed Phase Position Reconfiguration on H-frame Structures
(View looking north from Lasalle Road)



The proposed reconfiguration will only increase the separation between phase positions and thereby, will not create any new double circuit contingencies. The IESO will continue to monitor and respect the existing ‘L23N + V41N’ and ‘V41N + V43N’ double circuit contingencies.

4.0 Conclusions

The proposed reconfiguration of the 230 kV L23N, V41N and V43N phase positions on seven H-frame structures north of Lasalle Road and south of Sarnia Scott TS will not create any new double circuit contingencies that need to be monitored and respected by the IESO.

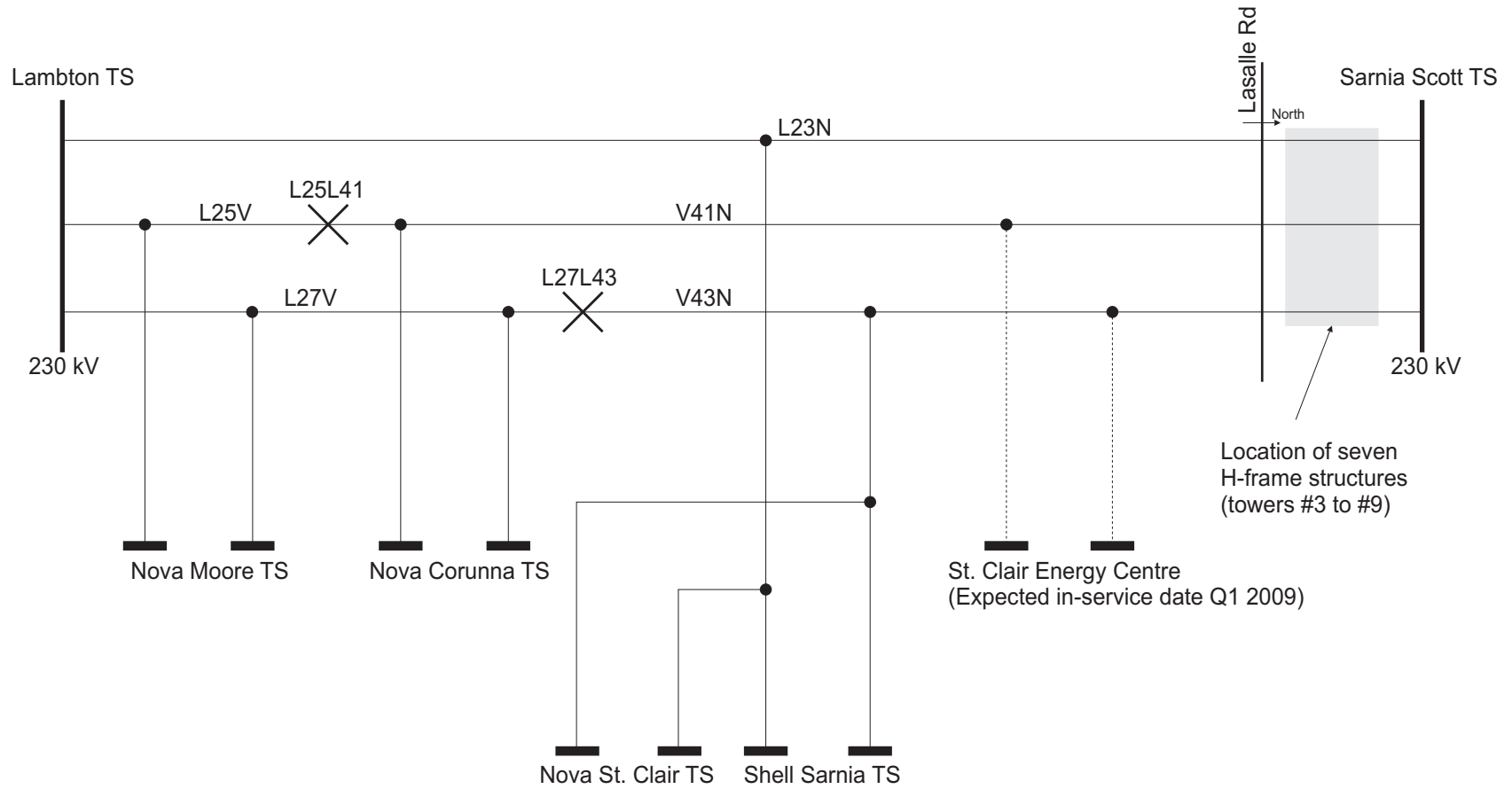
5.0 IESO Requirements

The IESO does not have any additional requirements for the proposed project.

Should any changes to the proposed project occur, Hydro One must notify the IESO as soon as possible. The IESO will then determine whether the changes require a re-assessment.

6.0 Notification of Conditional Approval

It is therefore recommended that a Notification of Conditional Approval of the Connection Proposal be issued for this project.



Phase Position Reconfiguration
 230 kV Circuits L23N, V41N & V43N
 North of Lasalle Road

Figure 1