APPENDIX B2:

Enova's Transmission and Distribution System Information for DG Proponents

Enova owns 12 transformer stations and 10 distribution stations that support its power distribution system. Additionally, it is supplied by 3 additional transformer stations owned by Hydro One Inc. Enova's distribution feeders operate at the following voltages (Phase-to-Phase/Phase-to-Neutral): 27.6/16kV, 13.8/8kV, 8.32/4.8kV.

Enova has plans to convert the 8.32kV distribution system into 27.6kV distribution system in the next 15 years.

In general, the maximum total generation capacity of all DG connected to Enova's feeders will be limited to:

- 27.6 kV Feeders: 13.6MW
- 13.8 kV Feeders: 6.8MW
- 8.32kV Feeders: 1.9MW

The 27.6 kV feeders also supply all distribution stations. The permissible generation at 27.6kV feeders may be reduced by the cumulative DG on the connected distribution stations with all connected 8.32kV feeders. The above maximum allowable DG capacity presumes 3-phase feeder with sufficient conductor size and load levels to permit the DG. The actual ability of Enova's feeders to accept a specific DG may only be determined through a detailed engineering review at the Connection Impact Assessment stage.

Enova's distribution system typically operates as multi-grounded system (3 phase 4 wire system). The transformer neutral at the station is either solidly grounded or effectively grounded through a low reactance at the station to limit the ground fault level. The fault levels on Enova system vary from location to location and from time to time. The maximum allowable fault levels are listed in Table 1. The actual fault levels at a certain DG site will be provided at the Connection Impact Assessment stage. Both the actual fault levels and the maximum system fault levels shall be considered by the DG proponent.

Table 1: Maximum fault levels on Enova Distribution System

Nominal Voltage (kV)	Max. 3-Phase Fault	Max. Single-Phase Ground Fault
27.6/16 kV	17.467kA	12kA
13.8/8 kV	20.919kA	10kA
8.32/4.8 kV	Contact Engineering	Contact Engineering

Enova uses voltage regulating devices in the distribution system in order to maintain an adequate voltage profile along the feeders under various operating conditions. These voltage regulating devices include the under-load tap changers at the transformer stations

and the voltage regulators or under-load tap changers at the distribution stations.

Enova uses automatic reclosing to quickly clear the temporary faults on the distribution feeders in order to quickly restore the power supply. The DG proponents shall consider the auto-reclosing while designing the DG facility. The DG protection shall coordinate with the auto-reclosing to prevent DG damage.

Abnormal system conditions and normal system maintenance may cause power interruptions or power outages on Enova's distribution feeders. The DG owner shall consider all possible disturbances while designing the protection system to ensure both the DG and other Enova's customers are protected. The DG shall also consider the DG revenue loss due to the power interruptions or power outages. Enova is protected from any claims and demands for loss, damage or injuries to persons or property resulting from the power interruptions and outages.