

1. Description of point of delivery CHNO

The Québec transmission system is connected to that of Ontario by line X2Y, operated at 120 kV, which links Bryson substation, belonging to Hydro-Québec TransÉnergie (the Transmission Provider) and Chenaux substation, owned by Hydro One (see Figure 1).

Figure 1: Point of delivery CHNO





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1.1. Configuration of point of delivery CHNO

Energy flows at point CHNO are only from Québec to Ontario. To achieve this, Bryson generating units are isolated from the Québec grid and synchronized to the Ontario grid. The generating station operators are the ones who schedule deliveries, based on the Ontario load.

2. Transfer capability

2.1. Total transfer capability

The total transfer capability (TTC) of point of delivery CHNO is 65 MW, limited by the installed capacity of Bryson generating station.

The TTC of point of receipt CHNO is 0 MW due to constraints on the Ontario grid.

2.1.1. Capacity under normal conditions (all facilities available)

With all system facilities available, the transfer capability of point of delivery CHNO is 65 MW regardless of ambient temperature.

It may be necessary to synchronize Bryson generating units to the Québec grid when the load there is high. Generating unit outages do not affect line X2Y transfer capability, however, which are not considered in calculating TTC.

2.1.2. Capacity under degraded conditions (one or more equipment outages)

In the event of a line X2Y outage, the transfer capability of point of delivery CHNO is 0 MW.

In the event of a circuit 1376 or 1173 outage, transfer capability of point of delivery CHNO can fluctuate between 10 and 65 MW. During a line 1376 outage, transfer capability is reduced to the equivalent of the Cadieux, Wyman and SSPM Pontiac substation load. During a line 1173 outage, transfer capability is reduced to the equivalent of the Cadieux and SSPM Pontiac substation load.

2.2. Transmission reliability margin

The transmission reliability margin (TRM) quantifies the Transmission Provider's uncertainty regarding the possibility of offering the anticipated transfer capability. The TRM of point of delivery CHNO is nil over all horizons.

2.3. Neighboring system constraints

Transfer capabilities posted by the Transmission Provider do not account for anticipated operating conditions on the neighboring system.

In normal operation, the import capacity of the neighboring Ontario system is 65 MW regardless of forecast weather conditions in Ontario.



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Commercial aspects 3.

Since the transmission service requested entails synchronizing generating units in Québec to the Ontario system, the customer must have an agreement to that effect in place with the generating unit owner, i.e., Hydro-Québec Production.

Transmission capacities posted by the Transmission Provider do not take into account anticipated operating conditions at Bryson generating station. Such conditions may make the actual transfer capability of point of delivery CHNO lower than the TTC.