

161/25-kV Waconichi Substation and 161-kV Power Line

PROJECT NEWS • June 2010

Construction is beginning this summer on the 161/25-kV Waconichi substation (formerly Mistissini substation) and the 46-km power line that will connect it to the grid. Hydro-Québec TransÉnergie has given Hydro-Québec Équipement et services partagés a mandate to carry out the construction work, which will be preceded by vegetation clearing.

The new substation and transmission line will connect the Cree community of Mistissini, located within the James Bay territory, to the power grid. The project consists in replacing the community's electricity supply, which is now delivered through two 25-kV distribution lines from Chibougamau, with a 161-kV supply from a new 161/25-kV substation to be built near the community.

The purpose of the project is to ensure a secure supply of power to the Cree community of Mistissini and to meet the growth in demand noted in the area over the past few years. It will also enable Hydro-Québec to fulfill its formal commitment to this community to improve the quality of electrical service.

Hydro-Québec has obtained a certificate of authorization from the Ministère du Développement durable, de l'Environnement et des Parcs for the portions of the project located on Category II and III lands, as well as a certificate of authorization from the Cree Nation of Mistissini for the portion located on the Category I lands of Mistissini.



Technical characteristics

161/25-kV Waconichi substation

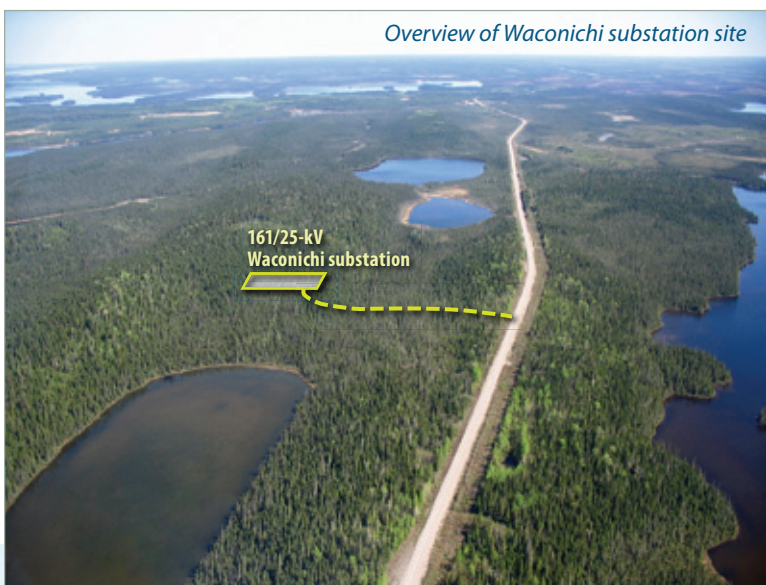
- Location: a few kilometres south of the junction of Route de Mistissini and Highway 167 (Rivière à la Perche sector)
- Area: 110 m by 140 m
- Two 22.5-MVA transformers
- One 161-kV switchgear bay
- Two 25-kV feeder bays (can be expanded to 5)
- A double 12-MVar capacitor bank
- A control and maintenance building

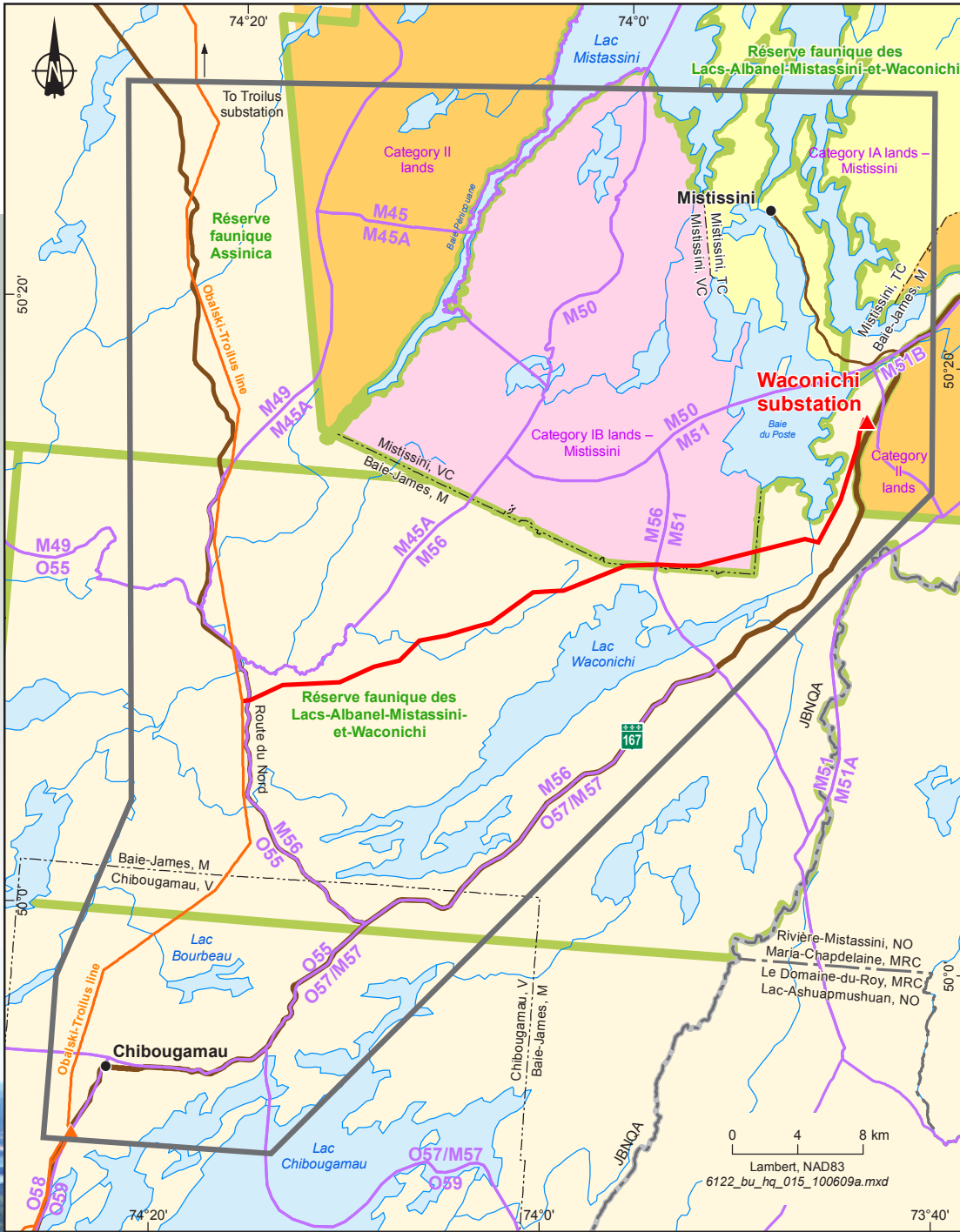
161-kV line

- Length: 46 km
- Width of right-of-way: 35 m
- Starting point: a tap-off on the Obalski–Troilus line
- Ending point: Waconichi substation
- Type of support structure: wooden H-frames insulated to 161 kV
- 161-kV three-phase single circuit

Project schedule

Clearing	Summer – fall 2010
Construction	Summer 2010 – fall 2011
Commissioning	Fall 2011





Mitigation measures

The expected impacts are minor and mostly related to construction activity. Hydro-Québec will ensure application of the mitigation measures by specifying them in the tender documents sent to contractors and by producing an environmental compliance guide. A Hydro-Québec officer will be present on the construction sites to monitor environmental compliance.

Project Components	Boundaries
Study area	JBNQA territory
Selected line route and substation site	Regional county municipality (RCM)
Infrastructure	Municipality
Substation and 161-kV line	M45 Trapline
Provincial highway	Wildlife reserve
Other road	Category IA lands
	Category IB lands
	Category II lands

