Refurbishment of Bryson Generating Station

INFORMATION BULLETIN • FALL 2017

Bryson generating station was built in 1924 and 1925. It is located on the Rivière des Outaouais (Ottawa River), in Bryson, in the Grand Calumet channel. It is a run-of-river generating station with an installed capacity of 56 megawatts (MW).

To ensure the continued operation of the generating station, Hydro-Québec is planning to replace its three generating units and two decks.
PROJECT DESCRIPTION

Replacement of generating units

Bryson generating station has three generating units. The first was commissioned in 1925, the second in 1929, and the third in 1949.

To fulfill its mission of generating electricity and ensure the long-term operability of its facilities, Hydro-Québec will be dismantling and replacing these three generating units.

Replacement of upstream and downstream decks

To improve equipment maintenance, Hydro-Québec will be dismantling the existing decks (concrete slabs on either side of the generating station) and replacing them with larger, more robust decks.

Construction of a cofferdam

Hydro-Québec will need to dry out the work area. To do so, it will build a rockfill cofferdam (temporary dike) upstream of the generating station, in the headrace canal. The generating station will have to be completely shut down for several months to conduct the work.

The flow of the river will not be affected by the work. The water that normally flows through the generating station’s turbines will be directed to the spillway.

Access roads and temporary work areas

The work will require the use of three access roads. Two of these will have to be built: one in the dried-out headrace canal and another downstream of the generating station, near Bryson substation. The third access road, located upstream of the headrace canal, already exists but will need to be upgraded for optimal use.

The temporary facilities needed for the work will be located within the boundaries of Hydro-Québec’s property and the clearing required for their construction will be very limited.
Study area

The project will be carried out entirely within the Pontiac MRC, in the Outaouais administrative region. Access to the generating station will be through Route 148, Chemin Wilson, the Monseigneur-Martel bridge and Chemin de la Montagne.

The project study area covers approximately 13.5 km² in the municipalities of Bryson, L’Île-du-Grand-Calumet and Litchfield.

Technical and environmental studies

Hydro-Québec is currently conducting detailed technical and environmental studies to determine the exact features of the project, become thoroughly familiar with the host environment, identify the environmental impacts and suggest appropriate mitigation measures.

According to the information we have to date, the main environmental and social considerations related to the project are the following:

- Fish habitat
- Presence of special-status plant and animal species
- Truck traffic and its impact on the quality of life of neighboring residents.
Public participation

Favorable reception from local communities is one of the three essential conditions for Hydro-Québec projects. When developing each new project, the company seeks to balance the impacts associated with the three pillars of sustainable development: social, environmental and economic.

As a result, Hydro-Québec has implemented a public participation and consultation process. The company will thus be able to take into account the concerns of the community and its leaders so as to best adapt the project to local realities.

Schedule

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<td>Summer 2018 – winter 2019–2020</td>
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<td>Construction</td>
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<td>• Construction of cofferdam</td>
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<td>• Construction of access roads</td>
<td>Fall 2020 – winter 2020–2021</td>
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<tr>
<td>• Replacement of generating units</td>
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<td>• Demolition and replacement of decks</td>
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For more information

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