

Hydro-Québec: an electrifying tale

HYDRO-QUÉBEC: A FORERUNNER IN THE FIELD OF RENEWABLE ENERGY

Environmental issues have become a major concern in the 21st century, but already in the late 19th century Québec was a precursor in the development of renewable energy. Its innovative approach is not surprising, given that Québec possesses over 40% of Canada's water resources in the form of 130,000 watercourses and 1,000,000 lakes.

THE FIRST STEPS TOWARDS CREATING A QUÉBEC SYMBOL

Under the government of Adélard Godbout, Québec nationalized the electrical assets of the Montreal Light, Heat and Power Company and placed them under the management of the Quebec Hydroelectric Commission in order to supply electricity to municipalities, industrial and commercial enterprises, and private citizens at the lowest rates consistent with sound financial administration. On April 14, 1944, Hydro-Québec was born.

Its first actions were to improve the reliability of its transmission and distribution grid. It continued work to develop the Beauharnois generating station, commissioned in 1932, and launched its first major project: to harness the power of the Betsiamites river on the North Shore.

This gave Hydro-Québec an opportunity to hone its skills and show the world that it could transmit electrical energy over large distances at a voltage of 315 kV, a record at the time.



Picture : © Archives d'Hydro-Québec

Logo used by Hydro-Québec from 1944 to 1964.



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The monthly magazine Le Progrès à la ferme promoted rural electrification in the 1950s.



CONSOLIDATION OF HYDRO-QUÉBEC'S ACTIVITIES



Picture : © Archives d'Hydro-Québec

At the request of the government led by Maurice Duplessis, Hydro-Québec focused on the large-scale electrification of rural regions in Québec, but it was only under the government of Jean Lesage, in the early 1960s, that Hydro-Québec completed its nationalization of the province's private electricity producers and distributors.

Thanks to its major hydroelectric projects on the North Shore and in Northern Québec, Hydro-Québec began to play a key role in Québec's economic development.

Aerial view of the Manic-5 construction site in 1966.

HYDRO-QUÉBEC TODAY

Hydro-Québec is recognized today as a leader in the field of hydroelectricity and large-scale power grids. It exports clean, renewable energy and applies its expert knowledge and innovations both within and outside Québec.

A source of pride for the province, Hydro-Québec makes a significant contribution to Québec's collective wealth and plays a central role in the creation of a low-carbon economy.

Today, Québec has more than over 60 hydroelectric generating stations.

Among the largest are the six stations listed below:

| NAME | WATERSHED | WATERCOURSE | INSTALLED Capacity (MW) | VERTICAL HEAD (M) | COMMISSIONING |
|-----------------|---------------|---|----------------------------|-------------------|---------------|
| Beauharnois | Saint-Laurent | Lac Saint-François et canal de Beauharnois | 1900 | 24,39 | 1932-1961 |
| La Grande-2-A | La Grande | La Grande Rivière | 2106 | 138,5 | 1991-1992 |
| La Grande-3 | La Grande | La Grande Rivière | 2417 | 79 | 1982-1984 |
| La Grande-4 | La Grande | La Grande Rivière | 2779 | 116,7 | 1984-1986 |
| Manic-5 | Manicouagan | Rivière Manicouagan | 1596 | 141,8 | 1970-1971 |
| Robert-Bourassa | La Grande | La Grande Rivière | 5616 | 137,16 | 1979-1981 |

