

of dams on the rivers or by regulating the outflow of lakes at the headwaters, were: the St. Maurice, the Gatineau, the Lièvre, the St. Francis, the Chicoutimi, the Au Sable and the Métis. The Commission also operated nine reservoirs on the North River, two in the watershed of the Ste. Anne de Beaupré River and one at the outlet of Lake Morin on Rivière du Loup. Eleven auxiliary reservoirs on the St. Maurice system and two on the Gatineau were turned over by the Department of Natural Resources in 1965 to the Quebec Hydro-Electric Commission for operation and maintenance. Other storage reservoirs include: the Lake St. John, the Lake Manouane and Passe Dangereuse on the Peribonca River, the Onatchiway on the Shipshaw River and Lake Memphremagog on the Magog River, all under private control; and Témiscamingue and Quinze Lakes on the Ottawa River controlled by the federal Department of Public Works. Storage reservoirs controlled by Hydro-Quebec include: Témiscouata Lake on the Madawaska River, Kipawa Lake and Lac Dozois on the Ottawa River, Lac Cassé in the Bersimis River watershed and Lac-Ste-Anne on the Toulnostouc River, a tributary of the Manicouagan.

The abundance of Quebec's water-power wealth, much of it in reasonable proximity to existing demand areas, has limited the application of thermal power to specific local use. With new developments in transmission technology allowing economic long-distance transportation of large blocks of power, it seems likely that Quebec will continue to concentrate on hydro-electric power and to develop some of the more remote rivers such as those flowing into James Bay. Nevertheless, the province is beginning to look toward thermal power since it will serve not only to help guarantee an adequate power supply in the face of increasingly heavy demands but also to render the almost exclusively hydro-electric base more flexible through integrated operation. Quebec's largest conventional thermal plant, the Tracy station near Sorel, has an installed capacity of 600,000 kw.

The total thermal capacity of the province increased by more than 30% during 1971. The commissioning of the new 250,000-kw Gentilly nuclear station, located on the south side of the St. Lawrence River a few miles downstream from Trois-Rivières, was largely responsible for this sizable increase. Although the station is currently owned by Atomic Energy of Canada Limited, Hydro-Quebec holds an option to purchase the facility when it becomes fully operational. The success in bringing Gentilly on line is of particular interest since it marks the first time in Canada that a nuclear plant using natural uranium as fuel, and ordinary light water for cooling, has produced electric power. All other Canadian nuclear developments use heavy water for cooling. The only other noteworthy thermal addition in the province during 1971 was a 3,000-kw internal combustion unit installed at the Cap-aux-Meules station on the Magdalen Islands. The over-all capacity of this station now stands at just under 15,000 kw.

With the installation of the final three 161,500-kw hydro-electric units at Manic 5, Hydro-Quebec completed the fifth of seven planned developments on the Manicouagan - Outardes river system. When all seven plants are operational they will have a total combined capacity of 5,500,000 kw, of which 3,880,000 kw have thus far been attained. Manic 5, boasting a capacity of 1,292,000 kw, is the largest plant in the complex and the second largest in the province. The Beauharnois development on the St. Lawrence River remains the largest in the Quebec system with a total capacity of more than 1,574,000 kw.

Although not located within the boundaries of the province, the Churchill Falls development in Labrador represents a new and very important source of energy for Quebec. By the end of 1971, two of the projected eleven 475,000-kw units were operational and delivering power to Hydro-Quebec. The Churchill Falls complex is expected to attain full capacity (5,225,000 kw) by the end of 1975 and most of its output will be fed into the Quebec system under a 65-year contract with the developers, Churchill Falls (Labrador) Corporation.

The Quebec Hydro-Electric Commission was established in 1944 (SQ 1944, c.22) to supply power to municipalities, industry, commercial ventures and the general public at the lowest rates consistent with sound financial administration. On May 1, 1963, the Commission acquired control of the following privately owned electrical utilities operating in the province: Shawinigan Water and Power Company, St. Maurice Power Corporation, Quebec Power Company, Southern Canada Power Company, Gatineau Power Company, Northern Quebec Power Company, Saguenay Electric Company, and Lower St. Lawrence Power Company. As a result of these acquisitions, all electricity production, except for facilities operated by certain industrial organizations in their own manufacturing operations, was brought under the control