

of a single authority. The Commission now services virtually the entire province except for local distribution of small amounts of electricity by some municipalities, most of it purchased from the Commission or its subsidiaries.

At the end of 1971, Hydro-Quebec and its subsidiaries operated 53 hydro-electric stations with a capacity of 10,439,761 kw and 16 thermal-electric stations with a capacity of 666,949 kw, for a total capacity in operation of 11,106,710 kw to provide a balanced distribution of power throughout the province.

As at December 31, 1971, Hydro-Quebec employed 12,245 persons to serve 1,895,488 customers. Capital expenditures increased from \$291.1 million in 1970 to \$387.6 million in 1971, while the value of plant and properties at cost rose to \$4,662.1 million in 1971 as compared with \$4,287.7 million one year earlier. Available power increased from 51,058 million kwh in 1969 to 56,166 million in 1970 and again to 58,334 million in 1971. Peak system load in 1971 reached 9,173,000 kw, an increase of 3.3% over the preceding year.

Most of the major planned additions to the power system in Quebec are hydro-electric. Next scheduled for service is a 36,600-kw addition to the Rapide-des-Îles plant in 1973 to be followed by the 1,176,000-kw Manic 3 development in 1975-76.

Considerable work took place during the year on the James Bay hydro-electric development. Under the direction of Hydro-Quebec and a number of other companies and consulting firms, approximately 1,300 men supported by 20 helicopters and 15 float-planes undertook a comprehensive survey of the area. Massive amounts of hydrologic, geographic, topographic and other data were needed to determine the feasibility of developing the region. In December, Hydro-Quebec and the James Bay Development Corporation received three reports dealing with the various development possibilities of the rivers flowing into James Bay from the Quebec side and the estimated cost of each. The five major rivers studied were the Nottaway, Broadback, Rupert, Eastmain and La Grande. Hydro-electric potential of the region is estimated at some 15,000,000 kw, roughly three times the size of the Churchill Falls complex.

Hydro-Quebec also carried out extensive investigations on a number of smaller sites during the year, including a study of the Chamouchouane River, where the potential exceeds 600,000 kw, and a study of the Moisie River whose potential could be as high as 1,800,000 kw if a small part of the Kaniapiskau River were diverted into it. Experimental work continued on the planned pumped-generating facility at St. Joachim on the St. Lawrence River near Quebec City. This station will eventually have a usable output of 3,700,000 kw in peak demand periods.

The principal achievement in transmission work in 1971 was the completion of the first of three 735-kv power lines linking the Churchill Falls complex with the Manicouagan and Micoua stations. Hydro-Quebec's 735-kv power line connects with the Churchill Falls transmission system at the Labrador border about 152 miles north of Sept-Îles. Approximately 700 miles of distribution lines were also installed to bring the total network to more than 43,000 circuit miles. Voltages on these lines range from 4 kv to 25 kv.

Ontario. Most of the electric power produced in the province comes from generators of The Hydro-Electric Power Commission of Ontario, Canada's largest power producing and distributing organization. The province's largest hydro-electric generating station is located on the Niagara River at Queenston, where the Sir Adam Beck - Niagara generating stations Nos. 1 and 2 and the associated pumping-generating station have a combined generating capacity of 1,814,950 kw.

Ontario has more thermal capacity than any other province in Canada; capacity installed at the beginning of 1972 was 7,984,000 kw, about 50% of the national total. Ontario Hydro's Lakeview station at Toronto is Canada's largest thermal generating station with an installed capacity of 2,430,000 kw. The Lambton station near Sarnia reached its designed capacity of 2,000,000 kw in 1970. Except for the oil-fired Lennox station now under construction, Ontario's fossil-fuelled thermal plants are designed to be coal-fired.

The Hydro-Electric Power Commission of Ontario is a corporate entity, a self-sustaining public enterprise given broad powers with respect to the supply of electricity throughout the province. Its authority was established by provincial legislation adopted in 1906 to give effect to recommendations that the water power of Ontario should be conserved and developed for the benefit of the people of the province. It now operates under The Power Commission Act (RSO 1970, c.354, as amended). The Commission may have from three to six members, all