

supply of over 11,000 GWh of surplus energy a year made available as a result of completion of the Churchill Falls development in Labrador.

Although no new additions to generation were made during 1974, the province was actively proceeding on a generation expansion program which will raise the installed capacity in 1980 by 1,760 MW, an increase of 132%. These additions include hydro, oil-fired thermal, and nuclear generation.

The first 320-MW unit of the 960-MW oil-fired thermal station at Coleson Cove will be in service late in 1975 with two additional units in 1976. The Mactaquac hydro station on the Saint John River is being increased to 638 MW capacity with the installation of the fifth and sixth units in 1978 and in the same year a 200-MW dual-fuelled (oil or coal) unit will be added to the Dalhousie thermal station.

Planning for reinforcement of the provincial transmission system is under way. The existing system will eventually have an overlay at 345 kV to connect the nuclear station in southern New Brunswick with load centres. Reinforcement of the Nova Scotia interconnection at 345 kV is also planned for 1977.

**Quebec.** The richest of all provinces in water power resources, Quebec possesses about 40% of the total for Canada and led in developed water power with installations of 13,799 MW in 1973, representing about 40.3% of the national total. Power production is facilitated by the regulation of stream flow through storage dams owned and operated by the Department of Natural Resources, and some responsibility for regulation rests with the Quebec Hydro-Electric Commission.

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 more remote rivers. Nevertheless, Hydro-Québec is beginning to look toward thermal generation 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 MW.

Work on the Outardes-2 site in the Manicouagan region has been restarted after six years of inactivity following the 1968 decision to purchase energy from Churchill Falls. The project is the final part of the 5,500-MW, \$1.5 billion Manicouagan-Outardes complex. Preliminary construction began in 1974 and the three 151.3-MW units are expected to be in service in 1978-79. Manicouagan-3 is nearing completion; the initial three of six 197.5-MW units are scheduled for service in 1975 and the station will be completed to a total of 1,185 MW by 1976.

Construction by Hydro-Québec of a 600-MW nuclear generating station, Gentilly-2, is proceeding satisfactorily and it is expected to be in service in 1979. The demonstration nuclear unit, Gentilly-1, which is owned by Atomic Energy of Canada but connected to the Hydro-Québec system, was restored to service late in 1974 and is expected to operate at full load in 1975. The plant had been shut down primarily because of the shortage of heavy water; in the interim improvements and modifications to ensure greater stability and better protection for the reactor system were incorporated. Gentilly-1 is a boiling light water version of the CANDU family, while Gentilly-2 is a standard pressurized heavy water design similar to the Pickering units in Ontario.

A 36-MW gas turbine generating station at Les Boules was removed from service in 1974.

Major long-range expansion plans are centred on the James Bay development. A work stoppage in 1974 has forced a delay of about six months in the projected date for first power deliveries from the LG-2 station to the fall of 1980. During the period 1980-85 an estimated 10,000 MW will be installed at four sites on La Grande River. LG-2, about 73 miles from the James Bay coast and the first site to be developed, will be completed to a total of 5,328 MW by the end of 1982; the remaining sites will be LG-1 (840 MW) about 19 miles below LG-2; LG-3 (1,760 MW) approximately 75 miles upstream of LG-2, and LG-4 (2,072 MW) some 140 miles further upstream.

An agreement in principle between the Quebec government and the Inuit and Cree peoples of northern Quebec was signed during 1974, and negotiations were continuing toward a final settlement. The agreement includes provisions granting to the native peoples 5,250 sq