

Power Corporation, following provincial government purchase in 1972 of all outstanding shares of the investor-owned utility.

The 100-MW oil-fired unit at Tufts Cove was recommissioned in 1973. This unit was placed in service in December 1972 but turbine problems caused a temporary shutdown pending blade replacement. A further 150-MW extension is planned for 1976 to increase the total plant capacity to 350 MW. Completion of a second unit at Point Tupper, rated at 150 MW, represented the province's largest new source of energy in 1973. A high-pressure steam interconnection enables these two units to supply process steam to the adjacent Canadian General Electric heavy water plant.

A second 138-kV transmission line through Cape Breton was completed during 1973 and construction was started on a 138/230-kV line from Sackville to Liverpool. Expansion of the Sydney steel plant, which will require significant new quantities of energy, has given rise to consideration of a third 138/230-kV line through Cape Breton from the Strait area to Sydney. Reinforcement of the existing interconnection of the power systems of New Brunswick and Nova Scotia is under study with consideration being given to using 345-kV transmission for this purpose.

New Brunswick. The New Brunswick Electric Power Commission was incorporated under the Electric Power Act of 1920. It has maintained a steady growth pattern since 1969. Power generation has risen from 4,196 GWh in 1970 to 4,748 GWh in 1971 and 5,894 GWh in 1972.

Power supply to meet present local demands is partly secured by a purchase agreement with Hydro-Québec covering the period 1971-76 and involving more than 11,000 GWh of surplus energy available from the Churchill Falls development in Labrador.

Although no new electric generating capacity was brought on line in 1973, construction of a major oil-fired thermal plant is now well advanced at Coleson Cove near Lorneville. This plant will provide 315 MW of new capacity in 1975 and a further 630 MW in 1976, in three relatively large economical generating units. Under an agreement with a consortium of New England utilities, they will receive 400 MW of capacity and energy for a period of 10 years beginning in 1976; in 1986 this 400 MW will revert to New Brunswick. A new 345-kV transmission system is being developed. The first 345-kV line between Coleson Cove and Keswick (near Fredericton) will have a capacity of 500 MW; two such circuits will connect Moncton and, if required, similar circuits will be built between New Brunswick and interconnecting systems.

At the Mactaquac hydro plant on the Saint John River, provision had been made in the initial planning for two additional units (units 5 and 6) to produce energy during high spring flows and for peaking service. Installation of unit No. 5 (110 MW) has begun and should be completed in 1975. Scheduling of the sixth unit awaits further growth of peaking capacity requirements in the province or on neighbouring systems.

The New Brunswick Electric Power Commission has initiated planning for development of its first nuclear power plant which will be designed as a two-unit 1,200-MW station. The Commission has undertaken a study to determine the amount of coal that can be economically mined in New Brunswick. If adequate coal supplies are located, it is possible that the 100-MW oil-fired station at Dalhousie (which was designed but not equipped for coal-firing) will be converted to coal.

Quebec. The richest of all provinces in water power resources, Quebec possesses about 40% of the total for Canada and leads in developed water power with installations of 13,764 MW in 1972, representing about 42% of the national total. Power production in the province is facilitated by the regulation of stream flow through storage dams owned and operated by the Department of Natural Resources. Some responsibility for regulation rests with the Quebec Hydro-Electric Commission. Details as to streams controlled appear in the *1973 Canada Year Book* p 580.

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 its more remote rivers. 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 ex-