

July 1966. The Maine and New Brunswick Electric Power Company Limited hydro plant at Tinker on the Aroostook River will be more than tripled in capacity when a new 24,600-kw. unit goes into service in April 1965.

Quebec.—In 1963, the Government of Quebec, through the Quebec Hydro-Electric Commission, nationalized the assets of the province's major private power utilities. By the end of 1964 the takeover had involved, in addition to the privately owned utilities, 45 electric co-operatives and three municipal electric systems.

The province's ambitious program of power development proceeded on schedule in 1964. Available year-end information indicates a total of 6,426,400 kw. of new generating capacity, most of it hydro, either under construction or scheduled for construction; of this total, 897,800 kw. is scheduled to go into service in 1965. During the year, Hydro-Quebec put 199,000 kw. of new hydro capacity into service at two plants on the Ottawa River. At Carillon, four 46,750-kw. units were installed, completing the development of the station, which has a total capacity of 654,500 kw. in 14 units. A 12,000-kw. unit installed at the Rapid II plant on the Upper Ottawa River brought the total plant capacity to 48,000 kw. A new hydro station being built at Rapides des Îles on the Quinze River will supply power to the rapidly developing northwestern region of the province; two 26,250-kw. units will go into service in 1966 and two similar units will be installed as local power demands require. The station will eventually be operated by remote control.

The major component in Quebec's current program of hydro expansion is the massive Manicouagan-Outardes development now under construction. The project involves harnessing the power of the two rivers by building a series of six hydro plants and extending the capacities of two existing plants to provide a total of over 5,500,000 kw. of new generating capacity. Manic 2, eleven miles from the mouth of the Manicouagan River, will be the first of the new plants to supply power. Eight units will provide a total capacity of 1,016,000 kw., five of which will be in service in 1965, the sixth and seventh in 1966 and the eighth in 1967. By the end of 1964, concreting was more than half completed on the buttressed, multi-arch dam at Manic 5. The dam will be over 4,000 feet long and some 703 feet high at the highest point above bedrock, one of the highest and most massive dams of its kind in the world. The reservoir at Manic 5 will store 115,000,000 acre-feet of water and will take eight years to fill. The power plant, designed for eight generators each rated at 168,000 kw., will produce first power in 1970.

Excavation for the powerhouse and penstocks at the Manic 1 site was completed in 1964. Manic 1 will have a total generating capacity of 180,000 kw. in three units and will go into service in 1966. Preliminary work was progressing at Manic 3 and at Outardes 3 and 4. Manic 3 is expected to house seven units with a total capacity of 1,123,000 kw.; first power is scheduled for 1972. Outardes 3 is designed for a capacity of 761,600 kw. in four units; Outardes 4 is designed for 644,000 kw. in four units. Initial operation for the two Outardes River stations is planned for November 1968. Flow regulation on the Manicouagan and Outardes Rivers will permit a total increase of 502,500 kw. in the capacities of two existing plants.

Energy for the Manicouagan-Outardes developments will be fed to load centres in the province via three 735-kv. transmission lines. The operating voltage of 735 kv. is the highest planned for long-distance transmission in Canada and is one of the highest in use anywhere in the world.

The Commission's new steam plant at Tracy near Sorel went into operation in 1964 with one unit rated at 150,000 kw. A second unit will be added in 1965 and the station will reach its full capacity of 600,000 kw. in four units by 1967. Plans for a 300,000-kw., two-unit thermal plant for the Gaspé Peninsula have been announced. The new station is scheduled for operation in 1970.

Ontario.—During 1964, the development program of The Hydro-Electric Commission of Ontario included among its main features construction of three new hydro stations,