

Quebec.—In 1962, the pace of development of hydro-electric power resources in Quebec accelerated with a total of 240,000 hp. of new capacity put into service; in contrast, the province's total thermal capacity increased by only 80 kw. Estimates for 1963 indicate a total of 480,000 hp. of new hydro capacity and in subsequent years an additional 5,200,000 hp., exclusive of an estimated 627,000 hp. that could be added at two existing developments when construction of storage reservoirs associated with the Manicouagan scheme are completed. Thermal plants under construction or in the planning stage will make available 310,000 kw. of additional generating capacity within the next few years.

Quebec Hydro-Electric Commission's Carillon hydro development on the Ottawa River began initial service with 240,000 hp. in four units; Carillon should be complete in 1964 with a total capacity of 840,000 hp. in 14 units. Studies continued relating to a proposed increase in generating facilities at the Commission's Rapid II plant on the upper Ottawa River, involving installation of a 16,000-hp. unit to bring the plant to an ultimate capacity of 64,000 hp. in four units. Construction progressed on the Commission's huge Manicouagan-Ourardes development, which will make available some 3,650,000 hp. at three sites on the Manicouagan River and 1,440,000 hp. at two sites on the Ourardes River. In addition, regulation from upstream reservoirs will permit the installation of as much as 627,000 hp. of new capacity at existing plants on the two rivers. At one of the sites on the Manicouagan River, a start was made on what will be one of the highest and most massive dams in the world. The structure, expected to take eight years to complete, will create a reservoir containing 115,000,000 acre-feet of water, covering a surface area of 800 sq. miles. Preliminary construction was begun at a second site on the Manicouagan River.

The Shawinigan Water and Power Company postponed indefinitely the construction of a 210,000-hp. development at Rapide des Coeurs on the St. Maurice River. Construction of a 300,000-kw. thermal plant at Tracy near Sorel progressed, with the first of two 150,000-kw. steam turbines scheduled to go into service in mid-1964.

Asbestos Corporation Limited announced tentative plans to build a 10,000-kw. diesel plant at Asbestos Hill in the Ungava region.

Ontario.—In 1962, a total of 320,000 kw. of new thermal capacity went into operation in Ontario; estimates for 1963 indicate a further 400,000 kw. and, for subsequent years, an increase of 1,100,000 kw. is forecast. For the first time in 17 years, the province's total hydro-electric capacity remained unchanged. On the basis of present information, however, new hydro capacity to go into service during the next few years will amount to as much as 1,496,000 hp., 288,000 hp. of which is scheduled for 1963.

The Hydro-Electric Power Commission of Ontario estimates that, over the next five years, power loads will increase at a compound rate of approximately 6 p.c. per annum. To meet these increasing loads, the Commission, during 1962, was engaged in the construction or planning of eight generating stations—four hydro-electric, two conventional thermal-electric, and two nuclear-electric. In addition, extensive engineering investigations were being carried out at a number of potential power sites on rivers in the James Bay watershed. Studies of the Madawaska River, to be completed in 1963, may indicate the possibility of developing another site on this river. Other potential sites within reach of present demand areas are located on the Montreal, English and Mississagi Rivers.

There is considerable interest in Ontario in the development of pumped-storage installations such as the pumping-generating station at Niagara Falls. The units at this station can be used either as pumps or generators. Operating as pumps in off-peak periods, the units use surplus power from the Sir Adam Beck plant to raise water to a reservoir at a higher level. The process is reversed during periods of peak power demand and the units, operating as generators, are driven by water from the reservoir. Plans are being made to build a station of this type near Collingwood, where the storage reservoir would be filled by the use of off-peak power from the Douglas Point Nuclear Station. In this way, the best use would be made of the power produced in the nuclear station, which is designed to operate continuously at or near full capacity.