Electric Power Commission has undertaken initial development of the Mactaquac site on the St. John River where some 500,000 kw. of generating capacity is expected to be installed.

Quebec.—Development of Quebec's water power resources over the past decade has been spectacular but even more formidable was the pace of development in 1963 and that scheduled for the next few years. The 360,000 hp. of hydro capacity brought into service in 1963 and the estimated 256,000 hp. for 1964 are but a small part of a projected hydro-electric program involving almost 7,600,000 hp. The current thermal-electric program will bring 150,000 kw. into service in 1964 and another 150,000 kw. after 1964. During 1963, the Government of Quebec, through the Quebec Hydro-Electric Commission, purchased the assets of a number of private power-producing utilities in the province; the general administrative framework of each of the companies, however, has been retained, at least for the present. The Shawinigan Water and Power Company is one of the companies whose ownership has passed to the province.

Quebec Hydro-Electric Commission's Carillon hydro-electric development on the Ottawa River was extended in 1963 with installation of six 60,000-hp. units; four units remain to be installed in 1964 when the ultimate capacity of 840,000 hp. in fourteen units will be reached. The Commission's Rapid II development on the Ottawa River also will reach its ultimate capacity of 64,000 hp. in 1964 when the fourth 16,000-hp. unit is brought into service. The massive hydro-electric development program referred to above involves the Manicouagan and Outardes Rivers which appear destined to meet most of the province's power needs for many years to come. As proposed, the two rivers would be harnessed as an integrated system with some 7,300,000 hp. to be installed in eight plants, including two existing plants which would be extended. Construction has begun at two sites, *Manic 2* and *Manic 5*, which will have installed capacities of 1,360,000 hp. and 1,800,000 hp., respectively. First power is scheduled to be available from *Manic 2* in mid-1965 and from the entire plant in 1967; *Manic 5* is scheduled for initial operation in 1968 and for completion in 1971. Start of construction at other proposed sites has not yet been scheduled. At the *Manic 5* site, the dam, a buttressed multi-arch structure, will be over 4,000 feet long and some 703 feet high at the highest point above bedrock. The structure, reported to be the highest and most massive of its kind in the world, will create a reservoir containing 115,000,000 acre-feet of water, covering a surface area of 800 sq. miles. Power from the plants which make up the Manicouagan-Outardes complex will be transmitted via 300-kv. circuits to two major collector stations where voltages will be stepped up to 735 kv. for transmission to Quebec City and Montreal. The operating voltage of 735 kv. is the highest at present planned for long-distance transmission in Canada and one of the highest in the world.