The year 1965 was a milestone in the history of electric power transmission in Canada. Extra-high-voltage transmission is not new in this country but in 1965, for the first time, power was carried over a transmission line at 735 kv., the highest AC voltage in commercial use anywhere in the world. The 735-kv. line commissioned in 1965 is the first of three extra-high-voltage lines built to carry power from the Manicouagan–Outardes hydro complex to demand centres in the Quebec City–Montreal area.

Manicouagan Power Company installed two 60,000-kw. units at the McCormick hydro plant on the Manicouagan River, bringing the total plant capacity to 311,250 kw. This plant will be integrated with Quebec Hydro's Manic 1 plant, now under construction, and with the Manicouagan-Outardes project.

Ontario.—During 1965, the power development program of The Hydro-Electric Power Commission of Ontario involved construction work on three hydro stations, four conventional thermal stations and two nuclear-electric plants. Extensions to two existing hydro stations were being planned and investigation of a number of hydro sites was continuing. The hydro stations under construction were the Harmon and Kipling stations on the Mattagami River and the Mountain Chute station on the Madawaska River; the conventional thermal plants were the Lakeview and Lambton coal-fired stations near Toronto and Sarnia, respectively, supplemented by the smaller oil-fired combustion turbine installations at the A. W Manby station in Toronto and the Sarnia-Scott station in Sarnia; the nuclear-electric stations were the Douglas Point station on the shore of Lake Huron and the Pickering station near Toronto.

The Harmon hydro development began operation in 1965 with a generating capacity of 129,200 kw.; there is provision in the plant for two additional units. Kipling station, designed for a capacity of 125,400 kw. in two units and with provision for two additional units, was scheduled for operation in 1966. At the Mountain Chute hydro site on the Madawaska River, two units, each rated at 69,750 kw., are scheduled for service in late 1967. Ontario Hydro proposes to install additional generating capacity at Barrett Chute and Stewartville stations, both of which went into service in the 1940s on the Madawaska River downstream from Mountain Chute. At Barrett Chute the addition of two 60,000-kw. units in 1968 will bring the total capacity to 160,800 kw., and at Stewartville two 50,000-kw. units to go into operation in 1969 will increase the capacity to 161,200 kw.

Studies are being carried out to determine the feasibility of further development of the hydro potential of the Montreal and Mississagi Rivers—the first projects to be undertaken will probably be the development of the Lower Notch site and the redevelopment of the Upper Notch site, both on the Montreal River.

At Lakeview generating station on the shore of Lake Ontario, installation of the fourth 300,000-kw. unit was completed in 1965. The ultimate capacity of Lakeview will be 2,400,000 kw. in eight units, the eighth unit scheduled for service in 1968. The Lambton station, on the St. Clair River about 14 miles south of Sarnia, will house four 500,000-kw. units to come into service at the rate of one a year between 1968 and 1971. Ontario Hydro is to install a number of combustion turbine generators in southern Ontario to serve as stand-by units and to contribute to the provision of an adequate margin of reserve capacity at times of peak load, particularly during the present period of rapid load growth. Six units were purchased in 1965, four with a rated capacity of 16,320 kw. per unit for installation at the A. W Manby Service Centre in western Metropolitan Toronto and two rated at 15,000 kw. per unit for installation at the Sarnia-Scott Transformer Station in Sarnia. The two units at Sarnia-Scott Transformer Station and two of the units at the A. W Manby Service Centre went into operation in December 1965. Installation of the other two units at the Service Centre will be completed in 1966.

At Douglas Point Nuclear Power Station, installation and testing of the CANDU reactor were well under way at the end of 1965. The 200,000-kw. unit was expected to be