

The hydro-electric stations under construction or in the planning stage during 1962 were the Otter Rapids station on the Abitibi River and the Little Long, Harmon and Kipling stations on the Mattagami River. The Otter Rapids station, with two 60,000-hp. units already in service, is being expanded by the addition of two similar units scheduled for service in 1963. The construction program for the Little Long station calls for installation of two 84,000-hp. units in 1963 and of two additional units at a later date. Two units of 94,000 hp. each are scheduled for installation at Harmon by 1965 with provision for two additional units, and at Kipling, two 94,000-hp. units should be in service in 1966, with provision for two additional units.

The two conventional thermal plants under construction in 1962 were the Commission's Lakeview station near Toronto and its Thunder Bay station at Fort William. A second 300,000-kw. unit was installed at Lakeview, bringing the total generating capacity to 600,000 kw.; unit 3 is scheduled to go into service in 1963, unit 4 in 1964, unit 5 in 1966 and unit 6 in 1967 or later. Ultimate capacity of the station will be 1,800,000 kw. At Thunder Bay, the 100,000-kw. unit is scheduled to go into service in 1963, after a number of modifications have been carried out.

The 20,000-kw. Nuclear Power Demonstration Station near Rolphton, Ont., was built as a joint undertaking by The Hydro-Electric Power Commission of Ontario, Atomic Energy of Canada Limited and the Canadian General Electric Company Limited. The station produced its first commercial electric power in June 1962 and since that time has performed satisfactorily. The success of its operation is a matter of widespread interest in many parts of the world. The Douglas Point Nuclear Station, now under construction on the shore of Lake Huron, is scheduled to go into service in 1965 with a generating capacity of 200,000 kw.

The Great Lakes Power Company is considering the development of a hydro-electric power site on the Montreal River. Installation at the plant would consist of a single 20,000-hp. unit, for operation in 1964. Also being considered by the Company is the addition of a third unit at the Lower Falls station on the Montreal River. Addition of this unit, rated at 21,000 kw., would raise the generating capacity of the plant to 37,200 kw.

Prairie Provinces.—In Manitoba, construction progressed at the site of Manitoba Hydro's Grand Rapids development on the Saskatchewan River; two 150,000-hp. units will go into service in 1964 and a third in 1965 and provision is being made for the eventual addition of a fourth unit. Engineering studies of potential sites on the Nelson River between Lake Winnipeg and Sipiwesk Lake were continued during the year. The addition of a 1,100-kw. diesel unit at The Pas generating station brought its total capacity to 5,250 kw. in five units and a thermal station housing two 40-kw. diesel units was built at Baker's Narrows, 20 miles south of Flin Flon, to serve the nearby airport.

In Saskatchewan, construction continued at Saskatchewan Power Corporation's Squaw Rapids development on the Saskatchewan River, the ultimate capacity of which will be 375,200 hp. in eight units. The first four units will be commissioned in 1963, two others in 1964 and two in 1966. The Prairie Farm Rehabilitation Administration of the Canada Department of Agriculture continued construction of the Saskatchewan River dam and reservoir at Coteau Creek. These are being provided primarily for irrigation purposes but hydro-electric generating facilities will be incorporated in the project by the Saskatchewan Power Corporation which plans an initial installation of three units and an ultimate installation of five units, each of approximately 60,000 hp. Two of the initial units are expected to be commissioned in 1967 and the third in 1968.

In Alberta, Calgary Power Limited continued construction at the Big Bend hydro site on the Brazeau River. The storage dam, creating a reservoir of 350,000 acre-feet, was completed and construction of the powerhouse eight miles downstream was well under way. A single 200,000-hp. unit is expected to be in service in 1964. It will be necessary to increase the height of the storage dam before additional units can be installed.