

**British Columbia.**—Substantial progress on the British Columbia Hydro and Power Authority's Portage Mountain development on the Peace River was reported in 1965. The development is planned for ten units with a total capacity of 2,270,000 kw., three of which are scheduled for service by the autumn of 1968. Work progressed on the three storage dams being built by British Columbia Hydro and Power Authority under the terms of the Columbia River Treaty, which entitle Canada to one half the power benefits accruing in the United States from the regulation of 15,500,000 acre-feet of water to be stored in Canada behind the Duncan, Arrow and Mica Dams and one half the value of the estimated flood damage prevented in the United States through the operation of the dams for flood control. The three storage dams are required by the Treaty to be in operation in 1973. The third 150,000-kw. unit at British Columbia Hydro's Burrard thermal station went into operation in 1965, bringing the station's total capacity to 450,000 kw. and a fourth 150,000-kw. unit should be in service in September 1967. Ultimate capacity of the plant will be 900,000 kw. in six units. During the year, generating capacity was boosted at eight of the Authority's diesel stations by a combined total of 28,361 kw.

The City of Revelstoke added a second 4,000-kw. unit at the Walter Hardman hydro plant in 1965, bringing the plant capacity to 8,000 kw. The fourth and final unit at the Cominco Ltd. Waneta hydro station on the Pend d'Oreille River will be in operation in 1966; the new unit, rated at 76,000 kw., will increase the station capacity to 292,000 kw. A 34,560-kw. turbo-generator being installed by Columbia Cellulose Company Limited for 1966 operation at the bleached-kraft mill at Watson Island near Prince Rupert will supply electric power from process steam. MacMillan, Bloedel and Powell River Limited have ordered a 30,000-kw. steam turbo-generator for the 14,925-kw. Powell River plant, to be in service in late 1966. Capacity of the Alco Ltd. Kemano hydro station will be boosted to 812,800 kw. in 1967 with the addition of an eighth unit, rated at 105,600 kw.

**Yukon and Northwest Territories.**—In 1965, Northern Canada Power Commission commissioned its Twin Gorges hydro plant on the Taltson River, 35 miles northeast of Fort Smith, N.W.T. This plant has an installed capacity of 18,000 kw. in one unit and is the largest hydro station in the Territories. A total of 1,610 kw. of new thermal capacity was added in 1965 at various locations in the Northwest Territories and 120 kw. in Yukon Territory.

### Section 3.—Power Generating Capability and Load Requirements

**Power generating capability**, as covered in this Section, is the measurement of the available generating resources of all hydro and thermal facilities at the time of the one-hour firm peak load for each reporting company, and is not equal to the *capacity* of such generating facilities. For example, a hydro plant may have a capacity of 100,000 kw. but if, at the time of peak load, the water available for generation is only 80 p.c. of the plant capacity requirements, then its capability is 80,000 kw.

Total generating capability has grown at a rapid rate since 1955. The annual rate of increase was 7.2 p.c. in the ten-year period 1955-65 and 5.6 p.c. in the four-year period 1961-65. In comparison, the forecast rate of growth for the years 1966-70 is 7.4 p.c.; thermal generating capability is expected to grow at an average rate of 13.5 p.c. a year in the forecast period compared with 13.8 p.c. in the period 1955-65 but hydro-electric capability is expected to increase at 5.0 p.c. a year compared with 5.7 p.c. in the 1955-65 period. This increased rate of growth in hydro generating capability in the forecast period is attributable to the large power projects under construction in relatively remote areas which will be completed within the next few years.

Among the provinces, Quebec has the largest generating capability, followed by Ontario, British Columbia and Alberta. Quebec also has the largest hydro-electric gener-