

CHAPTER XV.—ELECTRIC POWER*

CONSPECTUS

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The interpretation of the symbols used in the tables throughout the Year Book will be found on p. viii of this volume.

Section 1.—Electric Power Development

Subsection 1.—Historical and Current Trends in Power Development

Electric power development in Canada has undergone remarkable and sustained growth since the beginning of the century. From a modest 133,000 kilowatts of generating capacity installed at the end of 1900, Canada's installed hydro capacity rose to almost 21,800,000 kw. by the end of 1965, and thermal capacity to 7,600,000 kw.

The chart opposite shows the expansion in installed generating capacity in hydro and thermal stations that has taken place since 1920. Thermal-electric power development in Canada was not well documented early in the century but it is apparent that its growth was slow and of relatively minor importance until the late 1940s. The rate of development of hydro facilities, on the other hand, tended to accelerate after the turn of the century when improvements in electric power transmission techniques were introduced and increasing emphasis began to be placed on the construction of large hydro-electric stations.

During the prosperous 1920s, demand for electricity became heavier and the rate of installation increased appreciably. Then, under the depressed conditions of the early 1930s power demand dropped off but did not show up immediately as a drop in the installation rate because of the time lag inherent in hydro-electric power development. The completion of hydro projects initiated prior to the depression period accounted for the continuation of a high rate of capacity installation up until 1935; thereafter, poor economic conditions in the 1935-39 period resulted in a reduced rate.

In the early war years, the tremendous demand for power to drive Canada's war industries accounted for the sharp rise in installation of new generating facilities between 1940 and 1943 but in the later war years construction dropped off so that, from 1944 to 1947, a second flattening occurred in the growth curve. After the War, industrial expansion and rapidly growing residential and agricultural development placed extremely heavy demands on power generating facilities, to stay abreast of which the addition of new capacity was required at a rate higher than at any time in Canada's history. These demands also led to the start of an extensive program of thermal plant construction in the early 1950s, since they could not be satisfied from hydro sources alone. In the period

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