

CHAPTER XVI.—POWER GENERATION AND UTILIZATION

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Water-Power Resources*

Canada, a land of many lakes and rivers, has been abundantly endowed by nature with great water-power resources which are well distributed across the country. In most sections, adequate precipitation and favourable topography result in numerous rivers on which falls and rapids frequently occur and offer excellent opportunities for the development of hydraulic power; with the exception of the prairies of the middle west, water-power resources of importance are found in virtually every part of the country. In British Columbia, where precipitation is high, the rivers flowing down the Pacific slope of the Rocky Mountains offer many fine power sites. Alberta, although a Prairie Province, also has mountain streams from the Rockies as well as great reserves of undeveloped power on its large northern rivers. The great Canadian Shield of Precambrian rock, which forms an arc around Hudson Bay, covers part of the Northwest Territories and northern Saskatchewan as well as a large part of Manitoba, Ontario and Quebec; it is a rough, forest-covered, well-watered area characterized by innumerable lakes and fast-flowing rivers with many falls and rapids. The power of the Great Lakes-St. Lawrence River System forms part of the great resources of Ontario and Quebec upon which their status as the principal manufacturing provinces of Canada is built and which compensates in large degree for the lack of indigenous coal. In the Maritimes, the precipitation is moderately heavy and the rivers, while not large, afford numerous possibilities for power developments of moderate size. The water powers of the Province of Newfoundland have an estimated potential of over 5,000,000 h.p. of which in 1949 about 5 p.c. had been developed.

Subsection 1.—Water-Power Resources of Canada and Other Countries

Comparison between the water-power resources of Canada and those of other countries is rendered difficult by incomplete world statistics and differing bases of tabulation; only crude estimates of potential power are possible for many countries where resources are largely unexplored.

* Revised under the direction of Major-General H. A. Young, Deputy Minister, Department of Resources and Development, by Norman Marr, Chief, Water Resources Division.