

CHAPTER XII.—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 and Their Development*

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 and great reserves of undeveloped power on its large northern rivers. The Canadian Shield of Precambrian rock, which forms an arc around Hudson Bay, covers a portion of the Northwest Territories and northern Saskatchewan as well as a large part of Manitoba, Ontario, Quebec and Labrador; it is a rough, forest covered, well watered area characterized by innumerable lakes and by rivers with many falls and rapids. The water power of the Great Lakes-St. Lawrence River System forms part of the vast resources of Ontario and Quebec upon which their status as the principal manufacturing provinces of Canada is dependent and which compensate in large degree for the lack of indigenous coal. In New Brunswick, Nova Scotia and on the Island of Newfoundland precipitation is moderately heavy and the rivers, though not large, afford numerous possibilities for power developments of moderate size. In Labrador the potential resources of the Hamilton River are outstanding.

An accurate comparison of Canada's water power resources and their development with those of other countries† is not possible owing to incomplete world statistics and differing bases of tabulation. However from figures available at the end of 1953 it appears that Canada ranks second among the countries of the world in total installed capacity, being exceeded only by the United States; in installation per thousand population Canada

* Revised in the Water Resources Division, Department of Northern Affairs and National Resources, Ottawa.

† More detailed information on the water power resources of other countries is given in the 1951 Year Book, pp. 531-533.