

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—Available and Developed*

Canada, a land of many lakes and rivers, has been endowed by nature with great water power resources well distributed across the country. Adequate precipitation and favourable topography result in numerous fast flowing rivers which offer excellent opportunities for the development of hydraulic power; with the exception of the prairies of the mid-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 present fine power sites. Extensive water power resources are available in the Yukon Territory, principally on the Yukon River and its tributaries. 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 large parts 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 Great Lakes-St. Lawrence River system and its tributaries provide the extensive power 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 and 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 because world statistics are incomplete and are tabulated on differing bases. However, from information available 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 is exceeded only by Norway. Canada is in approximately fifth place in potential power resources but, on the whole, those resources are more readily available to prospective markets than are the water power resources of other countries that outrank Canada, an exception being the United States. In particular might be mentioned the enormous potential resources of the great river systems of Africa and Asia.

* Revised by the Water Resources Branch, Department of Northern Affairs and National Resources, Ottawa.