

CHAPTER XII.—POWER GENERATION AND UTILIZATION

CONSPECTUS

	PAGE		PAGE
SECTION 1. WATER - POWER RESOURCES AND THEIR DEVELOPMENT.....	541	SECTION 2. THE CENTRAL ELECTRIC STATION INDUSTRY.....	553
Subsection 1. Available and Developed Water Power in Canada.....	542	Subsection 1. Statistics of Central Electric Stations.....	554
Subsection 2. Water - Power Developments in the Provinces and Territories, 1953.....	546	Subsection 2. Ownership and Regulation of Central Electric Stations....	558
SPECIAL ARTICLE: The St. Lawrence Power Project.....	549	SECTION 3. TOTAL DEVELOPMENT OF ELECTRIC POWER FROM ALL AVAILABLE SOURCES.....	577

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 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 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 great resources of Ontario and Quebec upon which their status as the principal manufacturing provinces of Canada is dependent and which compensates 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 1952, 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

* 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.