

WATER POWERS OF CANADA

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Canada is fortunate in the extent and location of her water-powers. During the last twenty-five years nearly 1,800,000 water horse-power has been developed and employed. Table 86, a statement compiled from recent data, shows the available and developed water-powers of the principal European countries, as compared with those of the United States and Canada. It will be seen from this statement that Canada occupies an unique position as regards both potential and developed water-power. The present per capita power developed in Canada is larger than all other countries except Norway. It is the same with respect to known undeveloped water-power. No country enjoys to a greater degree the benefits of cheap dependable hydro-power, and no country has had these benefits more universally applied for municipal, industrial and domestic use. That Canada is one of the great water-power countries of the world is due largely to (1) the nature and extent of water resources—abundance and seasonable distribution of rainfall; the regimen of the rivers—upper waters well forested with large lakes suitable for regulation—rivers flowing through valleys with well concentrated falls; (2) the fortunate location of the waterfalls with respect to existing commercial centres and related raw materials; (3) the action of Dominion and Provincial Governments in having the water-powers thoroughly investigated and intelligently administered; (4) the foresight of the capitalist, and the professional skill of the engineer, in water-power development and use; (5) the almost universal adaptation of electrical energy for municipal, industrial and domestic purposes.

Within economic transmission range of practically every important city from the Atlantic to the Pacific, except those in the central western prairies, there are clustered water-power sites, which will meet the probable demands for hydro-power for generations. Table 87 indicates with reasonable accuracy the provincial distribution of the developed and undeveloped water powers within the settled portions of the Dominion.

In general, the use of Canadian water-powers may be distributed as (a) for municipal purposes; (b) for pulp and paper; and (c) for electric, chemical and similar processes. For municipal, including domestic and ordinary industrial purposes, about 78 p.c. of the total has been developed, or 1,348,490 h.p. For these uses further requirements will probably be met for some years by additional installations at, and increased storage for, existing plants. In certain centres, however, as for instance the Niagara power zone, growing requirements can only be met by new water-power developments.

For pulp and paper, about 14 p.c. of the total has been developed, or 248,075 h.p. Further requirements can probably be met for some time by additional installations to present plants, although the growth of this industry will necessitate the development of new water-