

1.—Available and Developed Water Power in Canada, by Provinces, Jan. 1, 1930.

Provinces.	Available 24-hour power at 80 p.c. efficiency.		Turbine installation.
	At ordinary minimum flow.	At ordinary six months flow.	
	h.p.	h.p.	h.p.
British Columbia.....	1,931,000	5,103,500	559,792
Alberta.....	390,000	1,049,500	70,532
Saskatchewan.....	542,000	1,082,000	35
Manitoba.....	3,309,000	5,344,500	311,925
Ontario.....	5,330,000	6,940,000	1,952,055
Quebec.....	8,459,000	13,064,000	2,595,430
New Brunswick.....	68,600	169,100	112,631
Nova Scotia.....	20,800	128,300	109,124
Prince Edward Island.....	3,000	5,300	2,439
Yukon and Northwest Territories.....	294,000	731,000	13,199
Canada.....	20,347,400	33,617,200	5,727,162

The figures in columns 2 and 3 of the above table represent 24-hour power^r and are based upon rapids, falls and power sites of which the actual existent drop of the head of possible concentration is definitely known or at least well established. Innumerable rapids and falls of greater or less power capacity, which are not as yet recorded, are scattered on rivers and streams from coast to coast and will only become available for tabulation as more detailed survey work is undertaken and completed. This is particularly true of the less explored northern districts. Nor is any consideration given to the power concentrations which are feasible on rivers and streams of gradual gradient where economic heads may be created by the construction of power dams, excepting only at points where definite studies have been carried out and the results made matters of record.

The figures in column 4 represent the actual water wheels installed throughout the Dominion, but these figures should not be placed in direct comparison with the available power figures in columns 2 and 3 for the purpose of deducing therefrom the percentage of the available water power resources developed to date. The actual water wheel installation throughout the Dominion averages 30 p.c. greater than corresponding maximum available power figures calculated as in column 3. The figures quoted above, therefore, indicate that the "at present recorded water power resources" of the Dominion will permit of a turbine installation of about 43,000,000 h.p. In other words, the present turbine installation represents only a little more than 13 p.c. of the present recorded water power resources.

The above figures may be said to represent the minimum water power possibilities of the Dominion. To illustrate, detailed analysis of the water power resources of the provinces of New Brunswick and Nova Scotia have disclosed most advantageous reservoir facilities for regulating stream flow. It is estimated that the two provinces possess within their respective borders 200,000 and 300,000 commercial h.p. These figures provide for a diversity factor between installed power and consumers' demands.

Recent Increase in Turbine Installation.—Table 2 shows the yearly increase in turbine installation by provinces from 1910 to 1929 inclusive. During the four years immediately preceding the war nearly 1,000,000 h.p. was installed, during the following eight years approximately the same installation occurred, while in the last seven years the gain was 2,718,817 h.p.