

1.—Available and Developed Water Power in Canada, by Provinces, Jan. 1, 1936.

Province and Territory.	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.
Prince Edward Island.....	3,000	5,300	2,439
Nova Scotia.....	20,800	128,300	116,367
New Brunswick.....	68,600	169,100	133,681
Quebec.....	8,459,000	13,064,000	3,853,320
Ontario.....	5,330,000	6,940,000	2,560,155
Manitoba.....	3,309,000	5,344,500	392,825
Saskatchewan.....	542,000	1,082,000	42,035
Alberta.....	390,000	1,049,500	71,597
British Columbia.....	1,931,000	5,103,500	718,497
Yukon and Northwest Territories.....	294,000	731,000	18,199
Canada.....	20,347,400	33,617,200	7,909,115

The figures of available power in the above table are based upon rapids, falls and power sites of which the actual existent drop, or the head of possible concentration, is definitely known or at least well established. Innumerable rapids and falls of greater or smaller power capacity, 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 turbine installation in the above table represents the actual water wheels installed throughout the Dominion, but these figures should not be placed in direct comparison with the available power figures 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 at ordinary six months flow. 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 43,700,000 h.p. In other words, the present turbine installation represents only slightly more than 18 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 analyses of the water-power resources of the provinces of New Brunswick and Nova Scotia have disclosed 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 horse power.

Growth of Water-Power Development.—The commencement of the long distance transmission of electricity at the beginning of the present century resulted in the extensive development of hydro-electricity for distribution over wide areas. The growth of installation during the period from 1900 to 1935 is shown, by provinces, in Table 2.