

1.—Available and Developed Water Power in Canada, by Provinces, as at Dec. 31, 1942 and 1943

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency, December, 1942 and 1943		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six-Month Flow	Dec. 31, 1942	Dec. 31, 1943
	h.p.	h.p.	h.p.	h.p.
Prince Edward Island.....	3,000	5,300	2,617	2,617
Nova Scotia.....	20,800	128,300	143,717	133,384
New Brunswick.....	68,600	169,100	133,347	133,347
Quebec.....	8,459,000	13,064,000	4,839,543	5,847,322
Ontario.....	5,330,000	6,940,000	2,684,395	2,673,443
Manitoba.....	3,309,000	5,344,500	420,925	422,825
Saskatchewan.....	542,000	1,082,000	90,835	90,835
Alberta.....	390,000	1,049,500	94,997	94,997
British Columbia.....	7,023,000 ¹	10,998,000 ¹	792,563	796,024
Yukon and Northwest Territories.....	294,000	731,000	22,899	19,719
Canada.....	25,439,400¹	39,511,700¹	9,225,838	10,214,513

¹ Revised in 1942. The substantial increases result from a very complete revision of the figures for British Columbia.

The figures listed in the first and second columns of Table 1 represent 24-hour power and are based upon rapids, falls and power sites of which the actual drop or the head possible of concentration has been measured or at least carefully estimated. Many unrecorded rapids and falls of undetermined power capacity exist on rivers and streams from coast to coast. These will become available for tabulation only as more detailed survey work is completed; this is particularly true in the less-explored northern districts. Also, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient, where economic heads may be created by the construction of power dams, unless definite studies have been carried out and the results made matters of record.

The third and fourth columns give the total capacity of the water wheels actually installed throughout the Dominion; these figures should not be placed in direct comparison with those in the first and second columns to deduce the percentage of the available water-power resources developed. The water-wheel installation throughout the Dominion averages 30 p.c. greater than the corresponding maximum available power figures for developed sites calculated as in the second column. The above figures, therefore, indicate that the *at present recorded water-power resources* of the Dominion will permit of a turbine installation of more than 51,350,000 h.p. In other words, the turbine installation at Dec. 31, 1943, represents slightly less than 20 p.c. of the present recorded water-power resources and the figures in the first and second columns may be said to represent the *minimum water-power possibilities* of the Dominion.

Subsection 2.—Statistics of Water-Power Development

Growth of Water-Power Development.—The inception of long-distance transmission of electricity about the beginning of the present century rendered practicable the development of water-power sites remote from the point at which the power was to be utilized. This resulted in the hydro-electric central station installation increasing from 33½ p.c. of the total hydraulic installation at Jan. 1, 1900, to 90 p.c. at Jan. 1, 1944. The growth of hydraulic installation during the