

1.—Available and Developed Water Power by Provinces, 1945 and 1946

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency December, 1946		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six-Month Flow	Dec. 31, 1945	Dec. 31, 1946
	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	133,384	133,384
New Brunswick.....	68,600	169,100	133,347	133,347
Quebec.....	8,459,000	13,064,000	5,848,572	5,848,572
Ontario.....	5,407,200	7,261,400	2,673,290	2,679,740
Manitoba.....	3,309,000	5,344,500	422,825	446,825
Saskatchewan.....	542,000	1,082,000	90,835	90,835
Alberta.....	507,800	1,258,000	94,997	93,060
British Columbia.....	7,023,000	10,998,000	864,024	864,024
Yukon and Northwest Territories.....	382,500	813,500	19,719	19,719
Canada.....	25,722,900	40,124,100	10,283,610	10,312,123

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, particularly in the less-explored northern districts. Also, unless definite studies have been carried out and the results made matters of record, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient, where economic heads possibly may be created by the construction of power dams.

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. At developed sites, the water-wheel installation throughout the Dominion averages 30 p.c. greater than the corresponding calculated maximum available power figures included in the second column and covering the same sites. 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 52,000,000 h.p.; also, the turbine installation at Dec. 31, 1946, represents roughly only 20 p.c. of 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.

The figures given in the table are shown in graphic form in the diagram on p. 481 which also includes the probable economic maximum turbine installation that would be reached if present known water-power resources were developed.

Subsection 2.—Statistics of the Growth of Water-Power Development

The growth of installed turbine capacity from 1900 to 1946 is shown by the figures given in Table 2, covering decades to 1940 and years 1941 to 1946.