

per thousand population, Canada is exceeded only by Norway. Canada is in approximately fifth place in potential power resources but, on the whole, those resources are more readily available to prospective markets than are those of other countries that outrank Canada, an exception being the United States. In particular, might be mentioned the enormous potential resources of the great river systems of Africa and Asia.

Subsection 1.—Available and Developed Water Power in Canada

Table 1 gives a summary of the water-power resources of Canada and their development as at Dec. 31, 1953.

1.—Available and Developed Water Power, by Province, as at Dec. 31, 1953

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency		Turbine Installation ¹
	At Ordinary Minimum Flow	At Ordinary Six-Months Flow	
	h.p.	h.p.	h.p.
Newfoundland.....	958,500	2,754,000	311,150
Prince Edward Island.....	500	3,000	1,900
Nova Scotia.....	25,500	156,000	162,433
New Brunswick.....	123,000	334,000	164,130
Quebec.....	10,896,000	20,445,000	7,719,122
Ontario.....	5,407,000	7,261,000	4,006,686
Manitoba.....	3,333,000	5,562,000	716,900
Saskatchewan.....	550,000	1,120,000	109,835
Alberta.....	508,000	1,258,000	207,960
British Columbia.....	382,500	814,000	1,496,518
Yukon and Northwest Territories.....	7,023,000	10,998,000	32,440
Canada.....	29,207,000	50,705,000	14,929,074

¹ Includes water wheels and hydraulic turbines installed.

The figures given in the first and second columns of the above table represent 24-hour power and are based upon rapids, falls and power sites of which the actual drop, or the head of possible concentration, has been measured or at least carefully estimated. Tabulations of potential power in Canada are still not complete as many unrecorded rapids and falls of undetermined power capacity exist on rivers and streams throughout the country, particularly in the less-explored northern districts. Apart from areas where definite studies have been carried out and the results recorded, 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 dams. Thus, the figures in Table 1 of available power, under the two conditions of stream flow, represent only the *minimum* water-power possibilities of Canada.

The third column of the table gives the total capacity of the water wheels actually installed. 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 that has been developed. At developed sites, the water-wheel installation averages 30 p.c. greater than the corresponding calculated maximum available power at the same sites. Figures of Table 1, therefore, indicate that the *at present recorded* water-power resources will permit of a turbine installation of nearly 66,000,000 h.p. and that the turbine installation at Dec. 31, 1953, represents less than 23 p.c. of recorded water-power resources.