

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, 1955.

1.—Available and Developed Water Power by Province as at Dec. 31, 1955

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	329,150
Prince Edward Island.....	500	3,000	1,882
Nova Scotia.....	25,500	156,000	177,018
New Brunswick.....	123,000	334,000	164,130
Quebec.....	10,896,000	20,445,000	7,975,657
Ontario.....	5,407,000	7,261,000	5,367,866
Manitoba.....	3,333,000	5,562,000	796,900
Saskatchewan.....	550,000	1,120,000	109,835
Alberta.....	508,000	1,258,000	284,010
British Columbia.....	7,023,000	10,998,000	2,271,460
Yukon and Northwest Territories.....	382,500	814,000	33,240
Canada.....	29,207,000	50,705,000	17,511,148

¹ Includes water wheels and hydraulic turbines installed.

The figures given 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 of possible concentration, has been measured or at least carefully estimated. Tabulations of potential power in Canada are 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 and should not be placed in direct comparison with those in the first and second columns to deduce the percentage of the available developed water power resources. 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, 1955 represents less than 27 p.c. of recorded water power resources.

The development of Canada's water power resources is a good index of the country's industrial growth and of the change in its economic life. In 1900, prior to the inception of long distance transmission of electricity, Canada's economy was based largely on agriculture and the total of hydraulic installations (mostly small mills) was only 173,000 h.p.