

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 the water power resources 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.

Table 1 gives a summary of the water power resources of Canada and their development as at the beginning of 1960.

1.—Available and Developed Water Power, by Province, as at Jan. 1, 1960

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency		Turbine Installation ¹
	At Ordinary Minimum Flow	At Ordinary Six-Months Flow	
	hp.	hp.	hp.
Newfoundland.....	1,608,000	3,264,000	370,135
Prince Edward Island.....	500	3,000	1,660
Nova Scotia.....	30,500	177,000	183,168
New Brunswick.....	123,000	334,000	254,875
Quebec.....	10,896,000	20,445,000	11,315,407
Ontario.....	5,496,000	7,701,000	7,982,151
Manitoba.....	3,492,000	5,798,000	778,900
Saskatchewan.....	550,000	1,120,000	128,835
Alberta.....	911,000	2,453,000	312,595
British Columbia.....	18,200,000 ²	19,400,000 ²	3,509,460
Yukon Territory.....	4,678,000 ²	4,700,000 ²	38,190
Northwest Territories.....	374,000	808,000	13,050
Canada.....	46,359,000	66,203,000	24,888,426

¹ Includes water wheels and hydraulic turbines installed.
stream flow regulation based on known storage potentials.

² This figure reflects the effect of possible

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. Furthermore, the estimates of power available in different provinces do not include the power potential of major river diversions which have been investigated but not developed. 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 figures in the third column of Table 1 give 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 developed of the available water power resources. While the maximum economic turbine installation at any site can be determined only by careful consideration of all conditions and circumstances pertinent to its individual development, it is usual practice to install turbines that have a total capacity in excess of the power equivalent of the six-months flow at the site.