

In 1957, hydro-electric installations produced a total of about 83,000,000,000 kwh. of electric energy. Assuming a working year of 275 eight-hour days and that the working capacity of a manual worker equals 1/10 h.p., the total energy produced from water power in 1957 represents the equivalent of the output of about 503,000,000 labourers.

Table 3 indicates the respective amounts of water power that have been developed by utilities and by industrial establishments. For this tabulation, utilities are defined as companies, municipalities or individuals who sell most of the power they develop. In some instances they include also certain subsidiary companies whose main purpose is to develop and sell power to a parent company for industrial purposes. Installations of utilities totalling 17,364,220 h.p. represent 78 p.c. of Canada's total developed water power as at Dec. 31, 1958.

Industrial establishments are defined as companies or individuals developing power mainly for their own use. Installations of industrial establishments totalled 5,015,406 h.p. as at Dec. 31, 1958. In addition, industry purchased a considerable amount of electricity from utilities.

The figure of total hydraulic installation in Canada (22,379,626 h.p.) is the cumulative total of all existing installations of water wheels and hydraulic turbines irrespective of whether or not the equipment has been in use during the year. It has been adjusted to Dec. 31, 1958, by the inclusion of new installations completed during the year and by deletions of old units that were dismantled.

3.—Developed Water Power, by Province, as at Dec. 31, 1958

Province or Territory	Turbine Installation		Total ³
	Utilities ¹	Industries ²	
	h.p.	h.p.	
Newfoundland.....	267,815	101,120	368,935
Prince Edward Island.....	240	1,420	1,660
Nova Scotia.....	168,375	14,793	183,168
New Brunswick.....	227,445	26,930	254,375
Quebec.....	7,302,878	2,554,729	9,857,607
Ontario.....	6,672,010	478,841	7,150,851
Manitoba.....	763,000	15,900	778,900
Saskatchewan.....	106,500	3,335	109,835
Alberta.....	311,530	1,065	312,595
British Columbia.....	1,512,887	1,797,573	3,310,460
Yukon and Northwest Territories.....	31,540	19,700	51,240
Canada.....	17,364,220	5,015,406	22,379,626
Percentage of total installation.....	78	22	100

¹ Includes only hydro-electric stations that develop power mainly for sale.

² Includes only water power developed by industries mainly for their own use.

³ Includes all water wheels and hydraulic turbines installed.

Section 2.—Thermal Power*

Thermally produced electric power capacity has expanded at a phenomenal rate since World War II. It has been estimated that the ratio of generating capacity in central thermal and hydro stations has sharply narrowed from 1:15 to 1:7 in the ten-year interval prior and subsequent to 1945. In 1958, this ratio approached 1:5 with the probability that by 1980 it would be as little as 1:2.

The accelerating trend toward thermal power developed significantly within the years 1954-58, particularly in the Atlantic and Prairie Provinces, Ontario and British Columbia. While Quebec and the Northwest Territories depend less on thermally generated power than the remainder of Canada, these regions too will eventually have need for such power.

* Prepared by the Fuels Division, Department of Mines and Technical Surveys, Ottawa.