

**3.—Developed Water Power in Canada: Distribution by Provinces and Industries, and per 1,000 Population, as at Jan. 1, 1930.**

Provinces.	Turbine Installation in h.p.				Total h.p. installation per 1,000 of estimated population of 1929.
	In Central Electric Stations.	In Pulp and Paper Mills.	In other Industries.	Total.	
1	2	3	4	5	6
British Columbia.....	417,960	81,000	60,832	559,792	947
Alberta.....	70,320	—	212	70,532	83
Saskatchewan.....	—	—	35	35	0.04
Manitoba.....	311,925	—	—	311,925	470
Ontario.....	1,616,773	240,880	94,402	1,952,055	597
Quebec.....	2,238,525	221,160	135,745	2,595,430	964
New Brunswick.....	83,910	19,778	8,943	112,631	269
Nova Scotia.....	77,897	16,008	15,419	109,124	198
Prince Edward Island.....	376	—	2,063	2,439	28
Yukon and Northwest Territories.....	—	—	13,199	13,199	1,063
<b>Canada.....</b>	<b>4,817,486</b>	<b>578,826</b>	<b>330,850</b>	<b>5,727,162</b>	<b>584</b>

Column 2 includes only hydro-electric stations which develop power for sale.

Column 3 includes only water power *actually developed* by pulp and paper companies. In addition to this total, pulp and paper companies purchase from the hydro-power central electric stations totalled in Column 2 electric energy for power purposes estimated at about 860,000 h.p., making a total of about 1,438,826 h.p. actually used for power purposes in the manufacture of pulp and paper. A considerable amount of off-peak and surplus power is also purchased for use in electric steam boilers.

Column 4 includes only water power *actually developed* in connection with industries other than the central electric station and pulp and paper industries. These industries also purchase power from the central electric stations totalled in Column 2.

Column 5 totals all turbines and water wheels installed in Canada.

Column 6 averages the developed water power per 1,000 of the estimated 1929 population.

## Section 2.—Central Electric Stations.

The rapid growth of the central electric station industry has been stimulated by the large demand for power from the manufacturing industries, particularly pulp and paper plants, and from the domestic and commercial light customers and also by the many improvements in generating and transmitting equipment and in electric appliances and motors. In Table 4 will be found statistics of the number of central electric stations, capital invested, revenue from sale of power, total horse-power, kilowatt hours generated and number of customers for the 12 years ended 1928, together with the number of persons employed and the amount expended for salaries and wages. According to a table in the Commerce Year Book of the United States for 1929, the output of electric current in Canada for 1925 was the third largest in the world, ranking next to the United States and Germany. Canada's output in 1926 was larger than that of Germany in 1925. Based on preliminary figures from the larger central electric stations a total production of 18,014,000,000 kilowatt hours is estimated from all stations in 1929.

The rapid increase in the production of electric energy by central electric stations is largely due to the growth of the pulp and paper industry. In 1924 the motors in the pulp and paper mills operated on power purchased from central electric stations had a rated capacity of 315,464 horse power, or 12.4 p.c. of all power equipment in manufacturing industries (the central electric station industry excluded), and in 1927 their rated capacity had more than doubled, increasing to 789,530 horse power, which was 24 p.c. of the total power for all industries. Also the pulp and paper industry has been using an increasing amount of electricity for heating water, and practically all the electric energy is used 24 hours per day throughout the year as against an average working day for other manufactures of 8 to 9 hours. Although the low rates are important factors in increasing the average consumption