

a total rating of 315,464 h.p. or 12.4 p.c. of all power equipment in manufacturing industries (the central electric station industry excluded). In 1930 this had increased to 993,024 h.p. or to 24.4 p.c. of the total power equipment in manufactures. Also the pulp and paper industry has been using an increasing amount of electricity for heating water. The capacity of electric boilers in this industry in 1931 was rated at 88,345 h.p. and the consumption of electric energy in these boilers amounted to 2,032,000,000 kilowatt hours. In pulp and paper mills 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 per capita for all purposes to 1,450 kilowatt hours (excluding exports), which is more than twice the average in the United States and over seven times the average in Great Britain, the large consumption by the pulp and paper industry, by mines and by electro-chemical industries are also important factors.

There are some interesting factors affecting the relative per capita consumptions of electricity from central electric stations in Canada and the United States. An abundant supply of low-priced coal in the industrial area of the United States, and no coal but an excellent supply of water power in the central provinces of Canada, tend to favour the generation of power in central stations in Canada more than in the United States. Again, the pulp and paper industry is proportionately a smaller industry in the United States than in Canada; on a power basis, the proportions are approximately 7 p.c. and 40 p.c. respectively. While the average consumption for domestic use is more than twice as high in Canada as in the United States, the total consumption for domestic or residential use is about 9.5 p.c. of the total output of central electric stations for Canada and 14 p.c. for the United States.

4.—Summary of Statistics of Central Electric Stations, calendar years 1917-31.

Year.	Number of Stations. ¹	Capital Invested.	Revenue from Sale of Power. ²	Total Horse Power. ³	Kilowatt Hours Generated.	Cus-tomers.	Persons Em-ployed.	Salaries and Wages.
		\$	\$	h.p.	(000).	No.	No.	\$
1917.....	666	356,094,168	-	1,844,571	-	-	8,847	7,777,715
1918.....	785	401,942,402	43,908,085	1,841,114	-	-	9,696	10,354,242
1919.....	805	416,512,010	47,933,490	1,907,135	5,497,204	-	9,656	11,487,132
1920.....	806	448,273,642	53,436,082	1,897,024	5,894,867	894,158	10,693	14,626,709
1921.....	510	484,669,451	58,271,622	1,977,857	5,614,132	973,212	10,714	15,234,678
1922.....	622	568,068,752	62,173,179	2,258,398	6,740,750	1,053,545	10,684	14,495,250
1923.....	532	581,780,611	67,496,893	2,423,845	8,099,192	1,112,547	11,094	14,764,038
1924.....	532	628,565,093	74,616,863	2,849,450	9,315,277	1,200,950	12,956	17,946,584
1925.....	563	726,721,087	79,341,584	3,569,527	10,110,459	1,279,731	13,263	18,755,907
1926.....	595	756,220,066	88,933,733	3,769,323	12,093,445	1,337,562	13,406	19,943,000
1927.....	629	866,825,285	104,033,297	4,173,349	14,549,099	1,381,966	14,708	22,946,315
1928.....	601	956,919,603	112,326,819	4,627,667	16,336,518	1,464,005	15,855	24,253,820
1929.....	587	1,055,731,532	122,883,446	4,925,555	17,961,840	1,555,883	16,164	24,831,821
1930.....	587	1,138,200,016	126,038,145	5,401,108	18,093,802	1,607,766	17,857	27,287,443
1931.....	559	1,229,988,951	122,310,730	5,706,757	16,330,867	1,632,792	17,014	26,306,956

¹ Excluding non-generating stations in 1920 and subsequent years.

² Revised to exclude duplications.

³ Not including auxiliary plant equipment which is included in installation shown in central electric stations in Table 7 of the manufactures chapter, pp. 428 and 429.

Equipment of Central Electric Stations.—The main-plant primary power equipment of all central electric stations aggregated 5,706,757 h.p. in 1931. This included water wheels and turbines, steam reciprocating engines and turbines and internal combustion engines. The hydraulic power machines greatly predominated