

## 5.—Summary Statistics of Central Electric Stations, 1925-39

NOTE.—Figures for 1917-24 will be found at p. 369 of the 1940 Year Book.

Year	Stations	Capital Invested	Revenue from Sale of Power <sup>1</sup>	Power Generated <sup>2</sup>	Kilowatt Hours Generated	Cus-tomers	Persons Em-ployed	Salaries and Wages
	No.	\$	\$	h. p.	'000	No.	No.	\$
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	17,962,515	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
1932.....	572	1,335,886,987	121,212,679	6,343,654	16,052,057	1,657,454	15,395	23,261,166
1933.....	575	1,386,532,055	117,532,081	6,616,006	17,338,990	1,666,882	14,717	21,431,877
1934.....	573	1,430,852,166	124,463,613	6,854,161	21,197,124	1,660,079	14,974	21,829,491
1935.....	566	1,459,821,168	127,177,954	7,104,142	23,283,033	1,694,703	15,342	22,519,993
1936.....	561	1,483,116,649	135,865,173	7,119,272	25,402,282	1,740,793	16,087	23,367,091
1937.....	568	1,497,330,231	143,546,643	7,342,085	27,687,646	1,805,995	17,018	25,623,767
1938.....	589	1,545,416,592	144,331,627	7,476,976	26,154,160	1,873,621	17,929	27,148,688
1939.....	611	1,564,603,211	151,880,969	7,607,122	28,338,030	1,941,663	18,848	28,223,376

<sup>1</sup> Excluding duplications.<sup>2</sup> Not including auxiliary-plant equipment.

The domestic service consumption or the electricity used in residences increased steadily, even during the years 1930-33, and in 1939 amounted to 2,358,364,000 kwh., an increase of 58 p.c. over the 1930 consumption and 8.6 p.c. over the 1938 consumption. The average consumption for domestic use is 63 p.c. higher in Canada than in the United States, while the total consumption for domestic or residential use is about 8.9 p.c. of the total output of central electric stations for Canada and 18.6 p.c. for the United States. This, of course, is owing to the fact that the industrial area of the United States has an abundant supply of low-priced coal while in the central provinces of Canada, with no coal but with an excellent supply of water power, conditions favour the generation of power in central stations.

**Equipment of Central Electric Stations.**—The main-plant primary power equipment of all central electric stations aggregated 7,607,122 h.p. in 1939. This included water wheels and turbines, steam reciprocating engines and turbines and internal combustion engines. The hydraulic power machines greatly predominated over the other prime movers, providing 95.2 p.c. of the total capacity, with steam turbines, steam reciprocating engines and internal combustion engines making up the remaining 4.8 p.c. Not included in the above were steam engines and internal combustion engines with a capacity of 194,139 h.p., or 2.6 p.c. of the total power capacity, installed as auxiliary or standby equipment. Power equipment used in mining and manufacturing industries is dealt with at pp. 296-299.

Central electric stations that have no water power, but are operated by steam and internal combustion engines, are on the whole small stations. Of the 44 main-plant steam reciprocating engines in central electric stations in 1939, only 7 were of over 500 h.p. capacity. The steam turbines averaged 4,570 h.p. with 22 units averaging 10,333 h.p., but there were only 70 steam turbines in the industry and these were confined to 29 stations, whereas the 826 water wheels and turbines averaged 8,766 h.p., including 4 at 65,000 h.p. and 5 at 66,000 h.p. each.

The majority of the fuel-using stations are primarily for lighting purposes, using the cheapest fuel procurable, generally oil or local coal. In the Prairie Provinces bituminous and lignite coals are used for the steam engines and gasoline, oil distillates and producer gas for the internal combustion engines.