over the other prime movers, providing 95 p.c. of the total capacity, with steam turbines, steam reciprocating engines and internal combustion engines making up the remaining 5 p.c. Not included in the above were steam engines and internal combustion engines with a capacity of 184,043 h.p., or 2·9 p.c. of the total power capacity, installed as auxiliary or standby equipment.

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 66 main-plant steam reciprocating engines in central electric stations in 1931, only 12 in number, or about 18 p.c., were over 500 h.p. The steam turbines averaged over 3,620 h.p. with 15 units averaging 9,600 h.p., but there were only 66 steam turbines in the industry and these were confined to 27 stations, whereas the 790 water wheels and turbines averaged 6,860 h.p.

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

Of the 317 main-plant internal combustion engines in central electric stations in 1931, 185, or 58 p.c., were in Saskatchewan, 51, or 16 p.c., in Alberta and 34, or 11 p.c., in Manitoba.

During 1931, the fuel stations produced 295,064,000 kilowatt hours at a cost for fuel of $1,789,634, an average of 0·61 ct. per kilowatt hour. This production was, however, only 1·8 p.c. of the total output. The auxiliary equipment in central stations consumed fuel valued at $102,618 and produced 10,469,000 k.w. hours.

5.—Equipment of Central Electric Stations, 1931.

NOTE.—K.V.A. means Kilo-volt-amperes.

Province.	Number of Power Plants.	Water Wheels and Turbines.			Steam Engines, Steam Turbines and Internal Combustion Engines.			Dynamos.		
		No.	Capacity.	Average Capacity.	No.	Capacity.	Average Capacity.	No.	Capacity.	Average Capacity.
MAIN PLANT EQUIPMENT.			h.p.	h.p.		h.p.	h.p.		K.V.A.	K.V.A.
Prince Edward Island	11	9	464	52	8	5,063	633	16	4,929	308
Nova Scotia	48	52	80,007	1,539	33	46,342	1,404	84	102,101	1,215
New Brunswick	19	16	105,485	6,593	22	21,275	967	39	107,477	2,756
Quebec	96	254	2,513,542	9,896	5	4,886	977	263	2,159,741	8,212
Ontario	125	336	1,774,121	5,280	8	988	117	337	1,436,989	4,264
Manitoba	28	37	376,925	10,187	49	9,470	193	82	306,401	3,737
Saskatchewan	119	–	–	–	213	135,026	634	211	114,776	544
Alberta	56	18	69,520	3,862	83	58,827	709	96	104,677	1,090
British Columbia Yukon	57	68	502,255	7,386	28	2,611	93	99	390,285	3,942
Totals	**559**	**790**	**5,422,319**	**6,864**	**449**	**284,438**	**633**	**1,227**	**4,727,376**	**3,853**
AUXILIARY PLANT EQUIPMENT.										
Totals	–	–	–	–	**127**	**184,043**	**1,449**	**117**	**157,221**	**1,344**

Provincial Distribution of Electrical Energy.—The distribution by provinces of the electrical energy generated in central electric stations throughout Canada is shown in Table 6 for the calendar years 1927-31. In the latter year about 80 p.c. of the total generated electrical energy was produced in the leading industrial provinces of Ontario and Quebec. From Table 7 it is seen that