

The water allowed to be diverted at Niagara Falls for power purposes was increased by 5,000 cu. ft. per second to the Canadian side in November, 1940, owing to a diversion of water from Long Lake and the Ogoki River from the James Bay watershed to the Great Lakes watershed. In 1941 a further increase of 9,000 c.f.s. to the Canadian plants and 12,500 c.f.s. to the United States plants was permitted. This increased water with greater development of plants on the St. Lawrence River made possible the increased export of both firm and secondary power to the United States, mainly to plants producing war materials (5,000 c.f.s. will produce around 150,000 h.p. at the Queenston, Ont., plant).

19.—Electric Energy Exported from Canada, 1940-43

Company	1940	1941	1942	1943
	kwh.	kwh.	kwh.	kwh.
Hydro-Electric Power Commission of Ontario.	395,620,100	393,750,900	393,852,800	394,200,000
Hydro-Electric Power Commission of Ontario (surplus)	711,865,644	907,377,373	1,012,364,271	1,085,363,938
Canadian Niagara Power Company	323,955,002	350,254,246	318,856,519	314,512,111
Canadian Niagara Power Company (surplus)	15,576,100	8,223,200	6,423,500	30,214,300
Ontario and Minnesota Power Co.	23,732,300	30,222,800	35,282,000	35,040,000
Maine and New Brunswick Electric Power Co.	21,871,011	23,492,600	25,562,379	30,889,205
British Columbia Electric Railway Co.	191,400	207,190	183,150	206,320
Southern Canada Power Co.	437,238 ¹	1,050,134	1,262,694	2,505,684
Cedars Rapids Manufacturing and Power Co.	636,726,412	636,930,098	653,517,236	643,037,269
Canadian Cottons, Ltd., Milltown, N.B.	548,460	1,093,680	550,800	727,100
Fraser Companies, Ltd.	3,305,800 ¹	5,310,000	4,258,300	6,885,000
Northport Power and Light Co.	294,494	335,758	273,024	16,368
Northern B.C. Power Co.	24,190 ¹	23,080	22,310	18,020
Detroit and Windsor Subway Co.	273,200	273,700	299,800	283,300
Manitoba Power Commission	1,013,400 ¹	996,340	1,030,200	1,139,420
Totals	2,135,434,751¹	2,359,541,099	2,453,738,983	2,545,038,035

¹ Revised since the publication of the 1942 Year Book.

Section 3.—Evolution of Power Equipment and Utilization of Power in Industry

The Dominion Bureau of Statistics has compiled tables showing the power equipment installed in the manufacturing and mining industries of Canada from 1923 to 1941. Table 21 gives the combined statistics for both industries from 1929. The figures for the 13 years show that primary power has increased from 1,680,095 h.p. to 2,185,050 h.p. or by 30.1 p.c. while the installation of electric motors operated by purchased power shows an increase of no less than 82.0 p.c. In considering the increase in the latter figures, it must be borne in mind that the shift from belts and shafting to individual motors at each machine does not necessarily mean that an amount of power is used equivalent to the increased capacity.

Of the increase in primary power installed, manufacturing establishments accounted for 69.8 p.c. and mines for 30.2 p.c., while of the increase in electric motors operated by purchased power, manufacturing accounted for 76.3 p.c. and mining for 23.7 p.c.

The mining industry shows an uninterrupted increase in the amount of equipment operated by purchased power from 1929 to 1941, the steepness of a curve depicting this growth would show no lessening of steepness even during the worst years of the depression. The total amount of power equipment installed showed a drop in 1932, but resumed the upward trend in 1933; the same is true of the capacity of electric motors installed but that of motors operated by power generated within the