C A N A D A

DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

PRODUCTION AND USE OF ELECTRIC ENERGY

PUBLIC UTILITIES BRANCH

in

CANADA

1933

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1934

DEPARTMENT OF TRADE AND COMMERCE DOMINION BUREAU OF STATISTICS TRANSPORTATION AND PUBLIC UTILITIES BRANCH OTTAWA

Dominion Statistician, R.H. Coats, B.A., F.S.S., (Hon.), F.R.S.C. Chief, Transportation and Public Utilities Branch, G.S. Wrong, B.Sc.

PRODUCTION AND USE OF ELECTRIC ENERGY IN CANADA

1933

Central electric stations in Canada produced 17,746,000,000 kilowatt hours in 1933, including an estimate of 194,400,000 for small stations which do not make monthly reports. Over 98 per cent of this was produced by water power and the remainder by thermal engines. Compared with the final production data for 1932, this output was an increase of 1,694,000,000 kilowatt hours, or 10.5 per cent. Exports to the United States, amounting to 989,364,000 kilowatt hours, increased by 321,484,000 kilowatt hours, or by 48.1 per cent; 83,042,000 kilowatt hours of this increase was in surplus power exported.

Electric energy produced for use in electric boilers also showed a large increase, growing from 2,836,339,000 kilowatt hours in 1932 to 3,608,400,000 kilowatt hours in 1933. This was an increase of 772,061,000 kilowatt hours, or 27.2 per cent. The greater part of this is used in pulp and paper mills which also use enormous quantities of power for driving machines, the quantity in 1932 for these other uses being 3,000,402,000 kilowatt hours; complete returns for 1933 have not yet been received from pulp and paper mills.

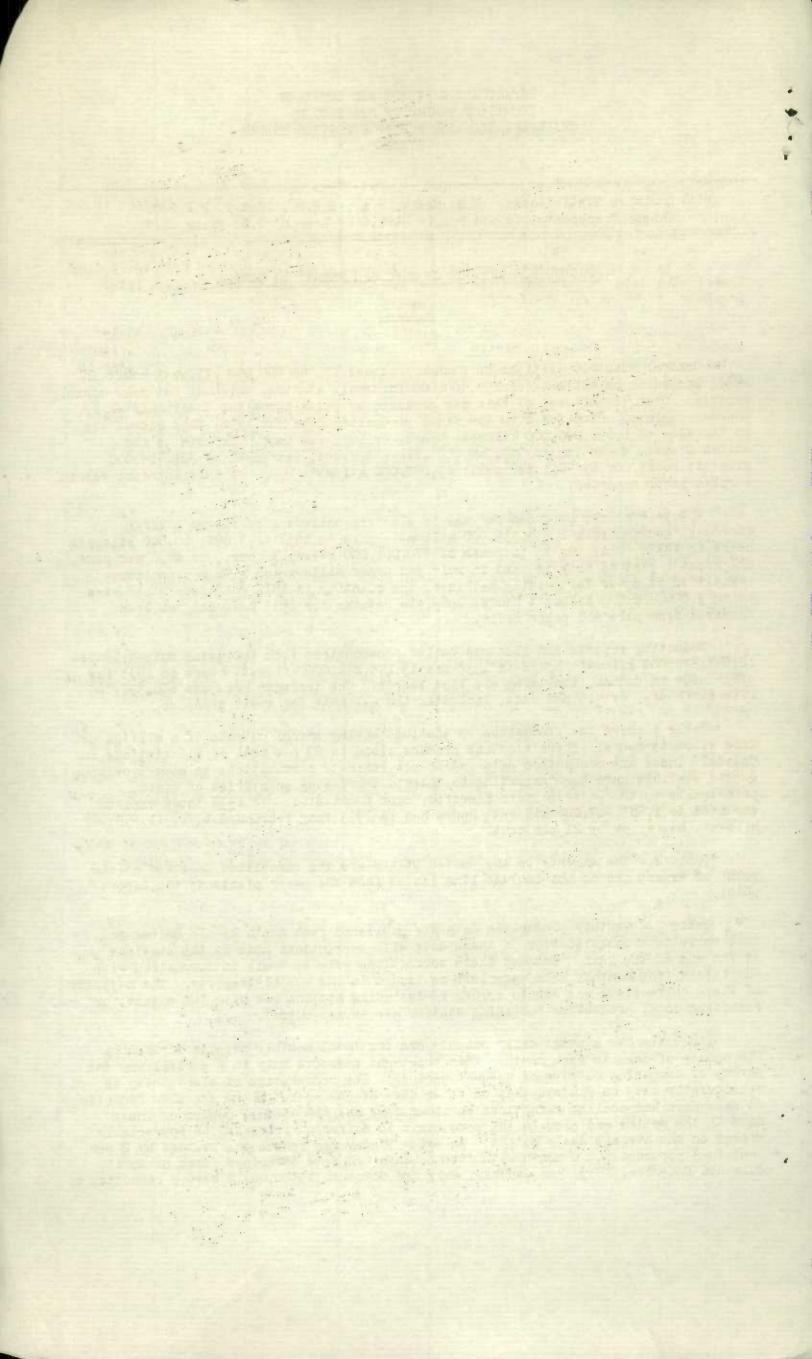
Deducting exports and electric boiler consumptions from the total output leaves 12,547,838,000 kilowatt hours in 1932 and 13,148,236,000 kilowatt hours in 1933 for other uses in Canada, including all line losses. The increase here was 600,398,000 kilowatt hours, or 4.8 per cent, including the estimate for small stations.

Table 1 shows the production by stations having annual outputs of a million or more kilowatt hours. These stations produce close to 99 per cent of all stations in Canada. These are production data and do not indicate consumptions in each province. Quebec stations have been exporting to Ontario increasing quantities of power, principally to the Ontario Hydro Electric Power Commission. In 1932 these exports amounted to 1,583,467,000 kilowatt hours and in 1933 they increased to 1,911,558,000 kilowatt hours, or by 21 per cent.

Table 2.- The exports to the United States are the quantities measured at the point of export and do not include line losses from the power plants to the export point.

Table 3.- Monthly production data are published each month by the Bureau and this table is a consolidation of these data with corrections made by the stations at the end of the year. Because these corrections were so small in comparison with the totals, the monthly data were left as issued in the monthly reports. The majority of these corrections are due to errors in including station use with the output, or reporting total production including station use as net output.

Table 4.- The average daily outputs are the total monthly outputs divided by the number of days in each month. This treatment corrects only in a partial way the errors of comparing outputs of unequal periods. The consumption of electricity is considerably less on Sundays than on other days of the week. There are also reductions on Saturdays and smaller reductions on other days and the unequal number of these days in the months and also in the same month in different years has an appreciable effect on the average daily output. An extra Sunday may reduce the average by 2 per cent to 3 per cent and a month with five Sundays and five Saturdays, such as April, July and December, 1933, and January, July and October, 1932, would have a reduction of



probably over 3 per cent as compared with months with only four Sundays and four Saturdays, due entirely to the deficiencies of the present calendar. Holidays in any month also reduce the daily average output.

Table 5.- Over 95 per cent of the total output of all Canadian stations was produced by 27 large systems and over 59 per cent was produced by the four largest of these. The data in this table are production data only and do not include power purchased by these systems for distribution.

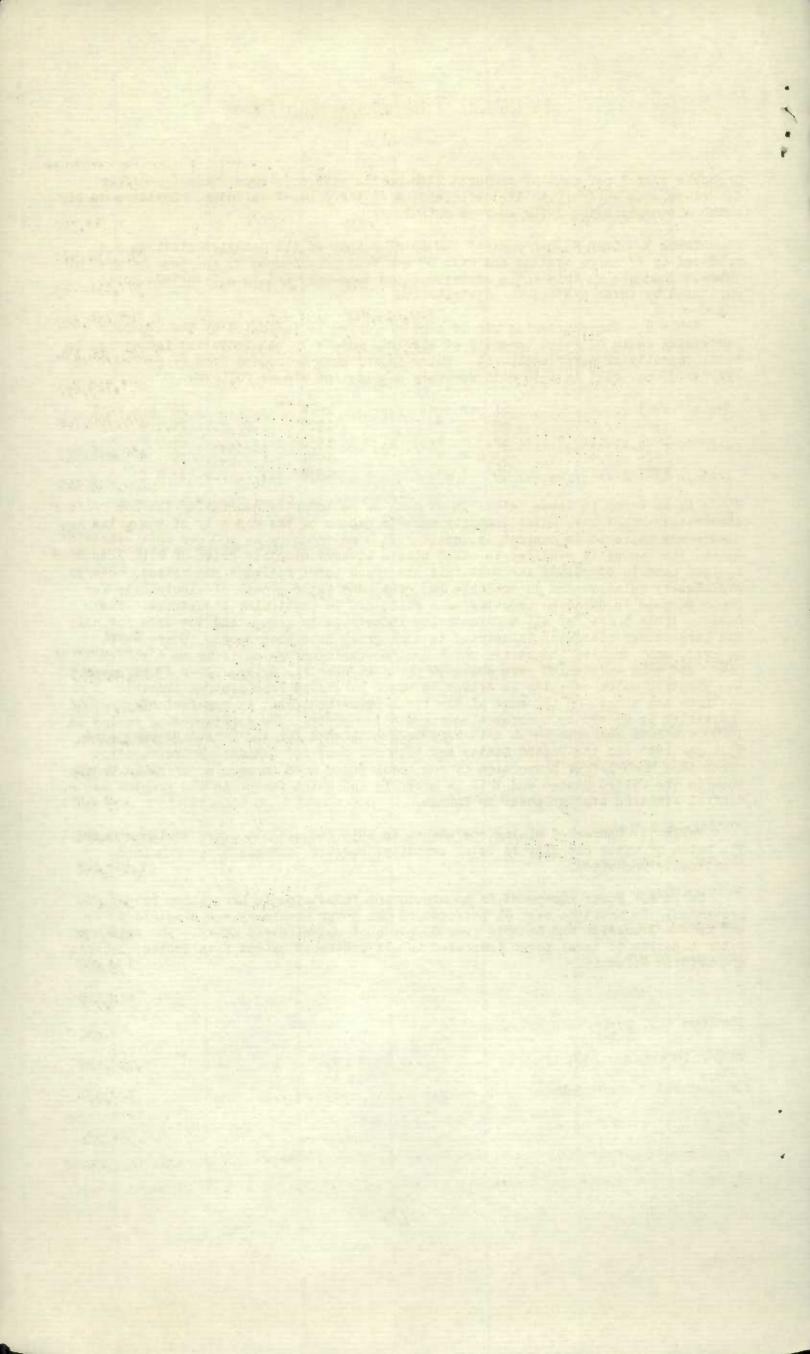
Table 6.- The increasing use of electric drive is indicated by the steadily increasing ratio of rated capacity of electric motors in manufacturing industries to total capacity of power equipment. These ratios have increased from 61 per cent in 1923 to 77 per cent in 1932 with scarcely a halt, and are as follows:

1923	61 per cent	1928	72 per cent
1924		1929	74.7 " "
1925	68.7 " "	1930	74.0 " "
1926	69.0 " "	1931	76 " "
1927		1932	

There is an error in these ratios in as much as an industry generating its own electricity might have motor capacity much in excess of the capacity of the prime movers and while it is correct to consider such an industry as 100 per cent electric drive, the excess is credited to other plants without electric drive or with less than 100 per cent in computing the subtotals and grand total ratios. The ratios, however, are closely relative and do indicate the great and rapid growth of electricity for power purpose in Canadian industry as a whole and in particular industries. The data in table 6 are for all manufacturing industries by groups and the data for only the large power consuming industries in each group have been shown. There were, however, many smaller industries which used electric energy entirely as a source of power and many more which were above 90 per cent electric drive. Over 83 per cent of the electric motor capacity is driven by power purchased from central electric stations and almost 65 per cent of the total power equipment in manufacturing industries is driven by central electric station power. The corresponding ratios in 1929, the last year for which data have been published for the United States, were 53.1 per cent for the United States and 58.5 per cent for Canada. Hydro-electric power is a much larger proportion of the total power used in manufacturing in Canada than in the United States and this is probably the chief factor in the greater use of central electric station power in Canada.

Table 7.- Decreased mining operations in 1932 reduced the power equipment used. The ratio of motor capacity to total capacity, however, for all mines remained practically unchanged.

Table 8.- Power equipment in manufacturing industries is here shown by provinces. In Manitoba over 91 per cent of the power machinery was electric drive and in New Brunswick and Ontario over 81 per cent was electric drive. The ratios of motor capacity to total power increased in all provinces except Nova Scotia, Alberta and British Columbia.



KILOWATT HOURS GENERATED BY PROVINCES (1)

<u>1933</u>								
Province	Water	: Fuel	Total					
Prince Edward Island	. 170,075	3,714,315	3,884,390					
Nova Scotia	. 225,773,225	101,378,345	327,151,570					
New Brunswick	. 347,305,290	29,810,855	377,116,145					
Quebec	9,627,614,820		9,627,614,820					
Ontario	4,625,779,298	121,600	4,625,900,898					
Manitoba	877,618,693	84,600	877,703,293					
Saskatchewan	196,012,300	129,688,408	325,700,708					
Alberta	132,639,780	48,036,237	180,676,017					
British Columbia	1,204,922,421	960,395	1,205,882,816					
TOTAL	17,237,835,902	313,794,755	17,551,630,657					
1933								
	Total							
Hydro Electric Power Commissio	n of Ontario		348,221,500					
11 11 11	" " (Surplu	s)	82,783,408					
Cedars Rapids Manufacturing an	d Power Co., Ltd		334,128,741					
Canadian Niagara Company			188,646,789					
" " (Surp	lus)	• • • • • • • • • • • • • • • • • • • •	493,300					
Ontario and Minnesota Power Con	mpany		16,538,050					
Maine and New Brunswick Electr	ic Power Co		11,165,650					
British Columbia Electric Compa	any		151,249					
Northport Power and Light Compa								
to the transfer of the transfer of the	any		254,732					
daritime Electric Company								
			254,732					
Maritime Electric Company	ompany		254,732 495,240					
Maritime Electric Company	ompany		254,732 495,240 382,562					

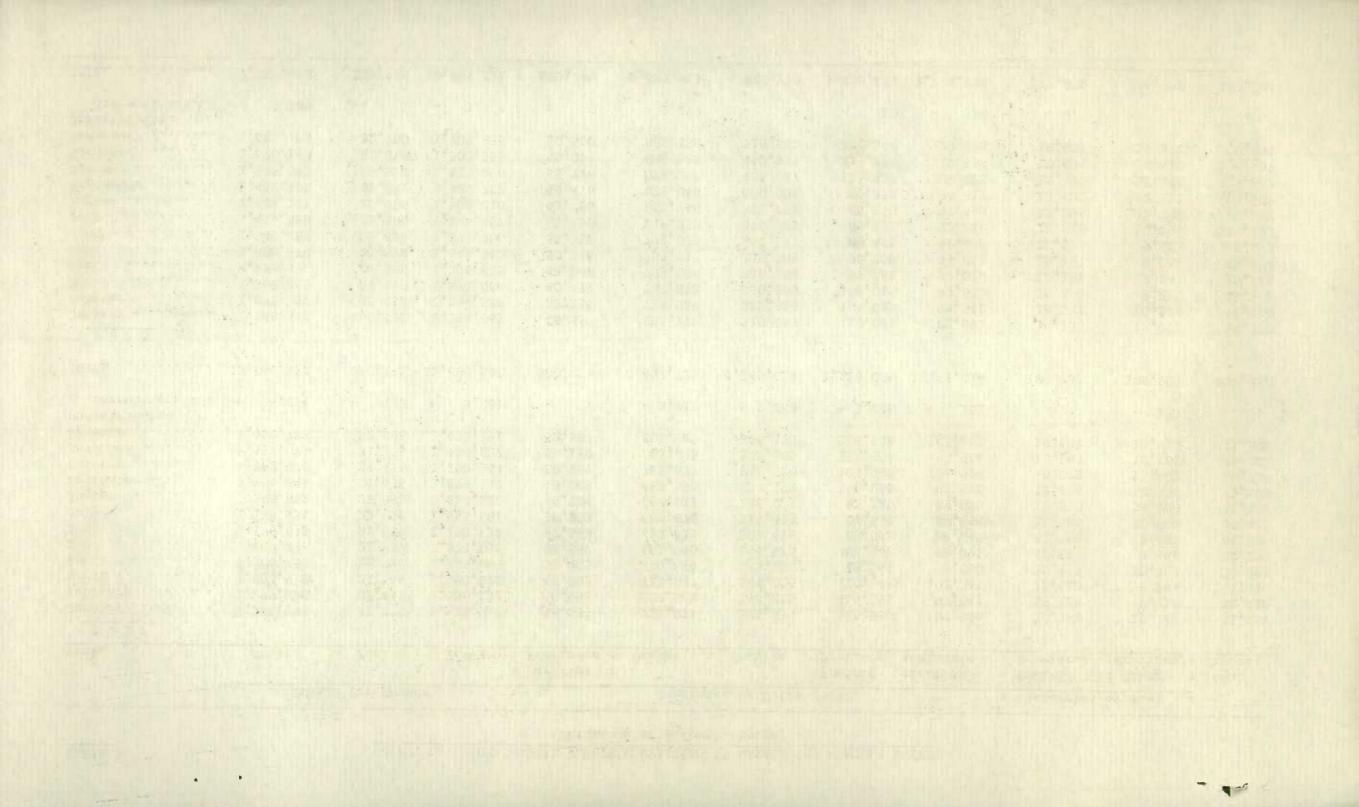
⁽¹⁾ Production of stations having annual outputs of a million or more kilowatt hours.

989,364,131

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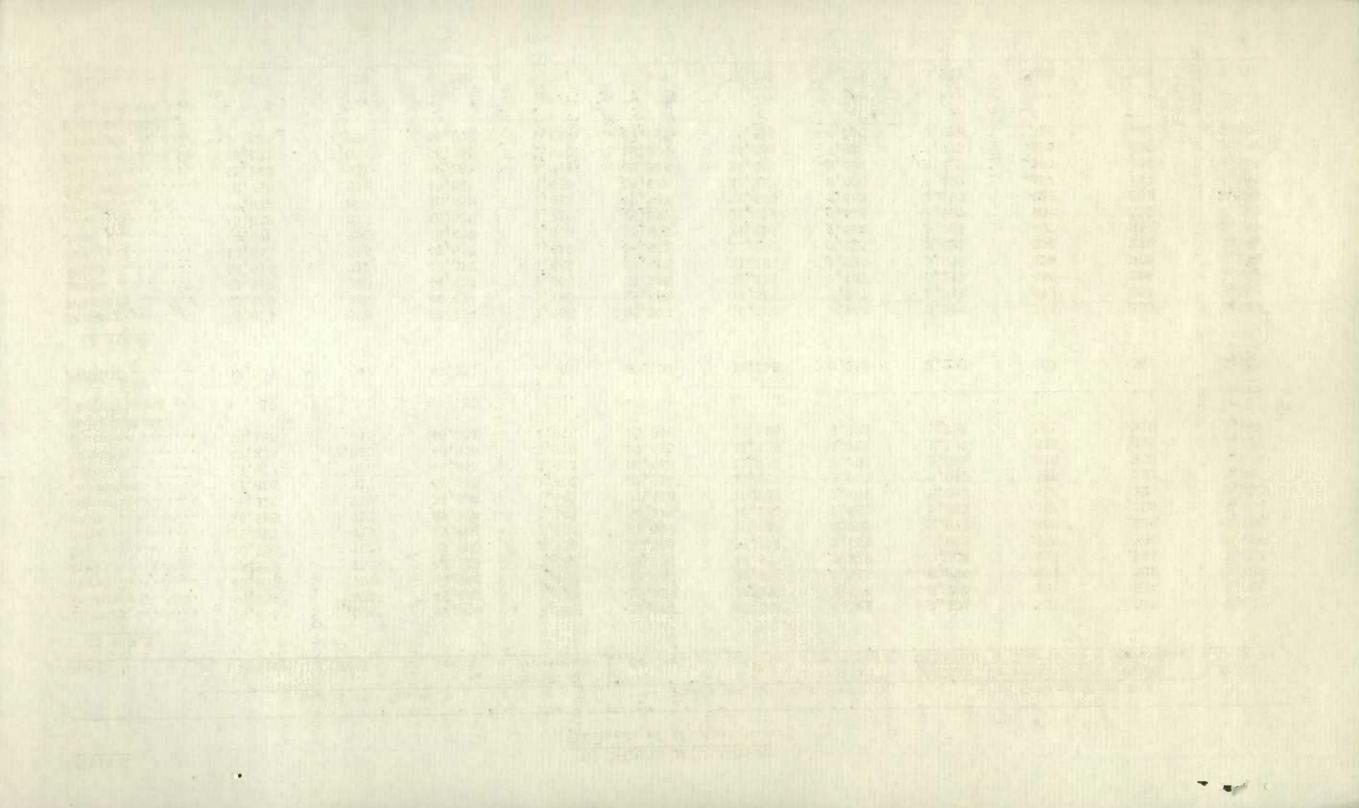
OUTPUT OF LARGE CENTRAL ELECTRIC STATIONS IN CANADA (A) MONTHLY OUTPUT (Thousands of Kilowatt Hours)

0	Tota	ls for Canada		Generated by Water Power : Generated by Fuel :						
			: Maritime :			:Prairie	:British	: Prairie		Total
	Water	: Fuel : Total	: Provinces :	Quebec	: Ontario	:Provinces	:Columbia	: Provinces	:Provinces:	Exports
1932									Market Land	
January	1,382,794	31,124 1,413,918	48,584	721,827	374,534	129,950	107,899	20,382	10,742	61,767
February	1,297,892	27,241 1,325,133	46,998	682,589	355,865	115,399	97,041	18,125	9,116	52,422
March	1,363,912	24,784 1,388,696	44,292	713,227	394,206	110,943	101,244	15,410	9,374	55,414
April	1,306,753	22,736 1,329,489	50,445	700,575	363,099	99,544	93,090	12,413	10,323	54,982
way	1,249,226	21,789 1,271,015	53,897	661,740	344,635	95,863	93,091	12,294	9,495	51,354
June	1,176,673	21,559 1,198,232	47,894	633,614	325,476	83,542	86,147	11,996	9,563	64,864
July	1,133,555	22,026 1,155,581	38,583	606,872	317,815	81,519	88,766	11,986	10,040	59,015
August	1,206,682	23,538 1,230,220	44,786	663,911	326,021	82,129	89,835	13,530	10,008	69,192
September	1,254,644	24,496 1,279,140	48,069	687,536	337,472	90,082	91,485	13,976	10,520	71,500
October	1,362,670	27,474 1,390,144	50,989	763,577	348,530	104,780	94,794	16,072	11,402	50,737
November	1,417,074	31,153 1,448,227	53,110	823,035	333,565	111,404	95,960	18,393	12,760	35,023
December	1,400,793	32,398 1,433,191	52,587	801,939	326,173	116,933	103,161	19,679	12,719	41,609
Undistributed										
corrections	+ 3,654	- 173 + 3,481	- 2	- 2,711	+ 2,268	+ 3,998	+ 101	0 0 9 0	- 173	
TOTAL	15,556,322	310,145 15,866,467	580,232	8,457,731	4,149,659	1,226,086	1,142,614	184,256	125,889	667,880
1933										
January	1,366,358	30,303 1,396,661	44,557	785,142	318,039	116,099	102,521	18,230	12,073	48,018
February	1,273,127	26,453 1,299,580		718,527	323,816	104,085	93,542	16,217	10,236	46,440
March	1,346,862	24,198 1,371,060		747,878	350,959	108,015	99,533	15,388	8,810	45,343
April	1,275,420	21,385 1,296,805		703,886	338,386	97,162	92,018	12,122	9,263	35,27
May	1,328,370	21,572 1,349,942	11	757,717	335,789	90,707	94,011	12,511	9,061	42,874
June	1,349,267	21,633 1,370,900		774,039	349,167	80,471	91,438	12,210	9,423	86,673
July	1,419,853	22,804 1,442,657		818,059	374,263	81,191	93,210	12,518	10,286	119,19:
August	1,483,131	25,085 1,508,216		865,746	392,773	83,178	97,649	13,296	11,789	109,59
September	1,462,491	26,831 1,489,322		829,045	400,098	90,253	98,617	13,720	13,111	122,90
October	1,589,072	28,536 1,617,608		878,097	434,037	111,937	109,223	15,390	13,146	127,24
November	1,670,149	32,214 1,702,363	11	888,123	492,937	117,639	112,356	17,804	14,410	106,45
December	1,675,105	32,780 1,707,885		862,635	515,568	125,544	120,838	18,403	14,377	99,353
Undistributed				THE PERSON						
corrections	- 1,369	+ 1 - 1,368	+ 7	- 1,279	- 53	- 10	- 34	0 0 0 T	+ 1	• • • •
TOTAL	17,237,836	313,795 17,551,631	573,249	9,627,615	4,625,779	1,206,271	1,204,922	177,809	135,986	989,364



(B) AVERAGE DAILY OUTPUT (Thousands of Kilowatt Hours)

:		Totals for (Canada	:	Gen	nerated by Wa			: Generated	ed by Fuel :				
:		:	•	: Maritime		:		: British		: Other	: Total			
Month :	Water	: Fuel	: Total	: Provinces	: Quebec	: Ontario	: Provinces	: Columbia	: Provinces	: Provinces	: Exports			
1932														
January	44,606	1,004	45,610	1,567	23,285	12,081	4,192	3,481	657	347	1,992			
February	44,754	939	45,693	1,621	23,537	12,271	3,979	3,346	625	314	1,808			
March	43,997	799	44,796	1,429	23,007	12,716	3,579	3,266	497	302	1,788			
April	43,558	758	44,316	1,681	23,353	12,103	3,318	3,103	414	344	1,833			
May	40,298	702	41,000	1,739	21,346	11,117	3,092	3,003	396	306	1,657			
June	39,222	719	39,941	1,597	21,120	10,849	2,785	2,872	400	319	2,162			
July	36,566	711	37,277	1,244	19,577	10,252	2,630	2,863	387	324	1,904			
August	38,925	759	39,684	1,445	21,416	10,517	2,649	2,898	436	323	2,232			
September	41,821	817	42,638	1,602	22,918	11,249	3,003	3,049	466	351	2,383			
ctober	43,957	886	44,843	1,642	24,632	11,243	3,380	3,058	518	368	1,637			
November	47,236	1,038	48,274	1,770	27,435	11,119	3,713	3,199	613	425	1,167			
December	45,186	1,045	46,231	1,696	25,868	10,522	3,772	3,328	635	410	1,342			
Indistributed	,													
corrections	+ 10	• • •	10	• • •	- 7	+ 6	a 11		• • •	•••	•••			
AVERAGE	42,504	847	43,351	1,585	23,109	11,338	3,350	3,122	503	344	1,825			
1933									To the designation of the second		1			
January	44,076	978	45,054	1,438	25,327	10,259	3,745	3,307	589	389	1,549			
February	45,469	945	46,414	1,185	25,662	11,564	3,717	3,341	579	366	1,659			
March	43,447	780	44,227	1,305	24,125	11,321	3,485	3,211	496	284	1,463			
April	42,514	713	43,227	1,465	23,463	11,280	3,239	3,067	404	309	1,176			
lay	42,851	696	43,547	1,618	24,442	10,832	2,926	3,033	404	292	1,383			
June	44,976	721	45,697	1,805	25,802	11,639	2,682	3,048	407	314	2,889			
July	45,802	735	46,537	1,714	26,389	12,073	2,619	3,007	404	331	3,854			
lugust	47,843	809	48,652	1,413	27,927	12,670	2,683	3,150	429	380	3,535			
September	48,750	894	49,644	1,483	27,635	13,337	3,008	3,287	457	437	4,097			
ctober	51,260	921	52,181	1,799	28,326	14,001	3,611	3,523	497	424	4,105			
lovember	55,671	1,074	56,745	1,970	29,604	16,431	3,921	3,745	594	480	3,549			
ecember	54,036	1,057	55,093	1,630	27,827	16,631	4,050	3,898	594	463	3,205			
Undistributed	01,000	2,001	00,000	1,000	2,,02,		,		Transport					
corrections	- 4	•••	- 4	• • •	- 4				• • •		• • •			
VERAGE	47,227	859	48,086	1,571	26,377	12,673	3,305	3,301	487	372	2,711			

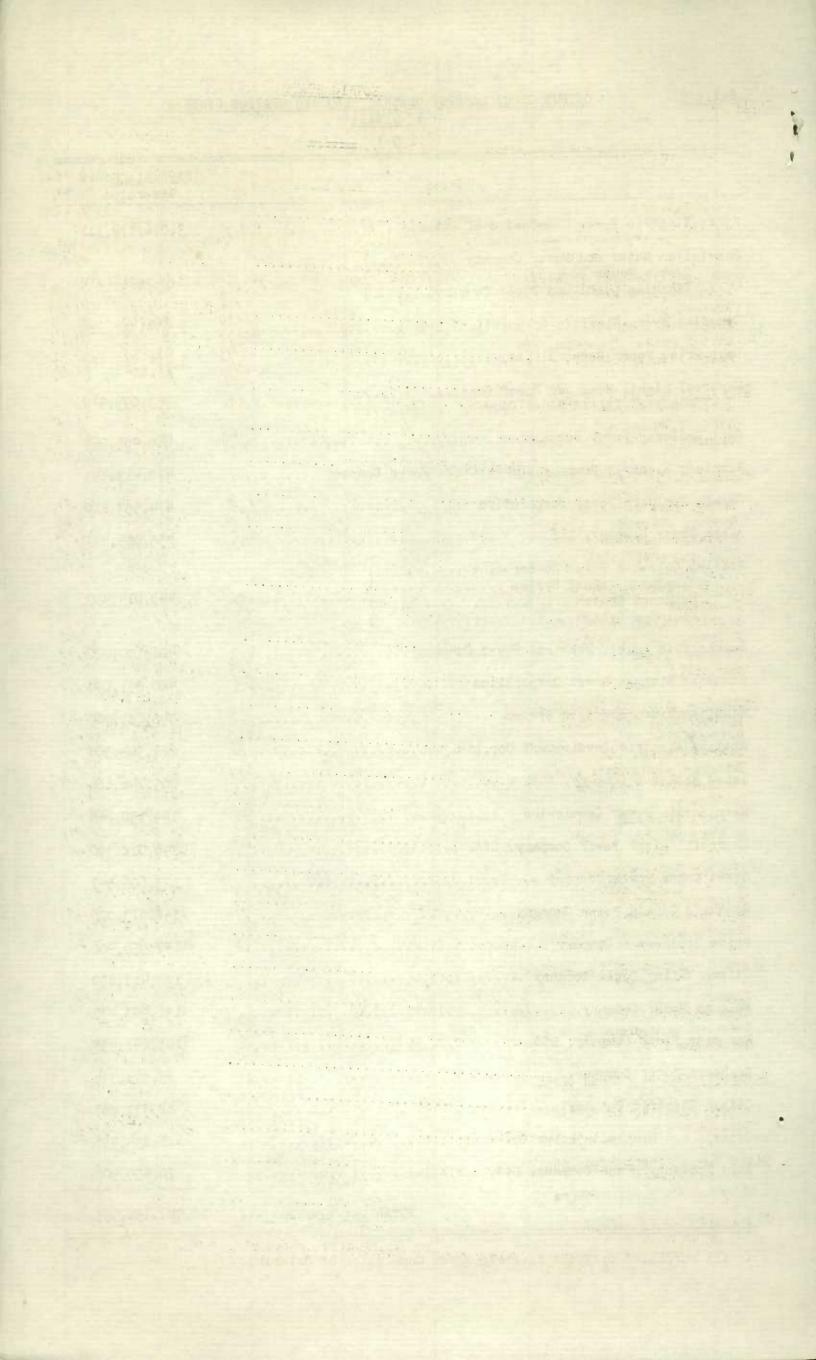


OUTPUT OF 27 LARGEST CENTRAL ELECTRIC STATION SYSTEMS IN CANADA

1933

	Kilowatt Hours Generated
Hydro Electric Power Commission of Ontario	3,076,479,311
Shawinigan Water and Power Company	3,005,812,940
Canadian Hydro Electric Corporation, Ltd	2,674,387,629
Duke Price Power Company, Ltd	1,724,566,120
Montreal Light, Heat and Power Cons) Montreal Island Power Company)	753,095,910
West Kootenay Power Company	660,905,059
Winnipeg Electric Company and Manitoba Power Company	479,413,393
Canada Northern Power Corporation	474,553,410
Alcoa Power Company, Ltd	455,089,497
British Columbia Power Corporation) Vancouver Island System) Mainland System) Kamloops System)	443,014,459
Beauharnois Light, Heat and Power Company	422,100,000
Canadian Niagara Power Corporation	420,851,200
Winnipeg Hydro Electric System	398,289,900
Abitibi Electric Development Co., Ltd	227,324,308
James Maclaren Company, Ltd	205,146,166
Nova Scotia Power Commission	199,150,648
Churchill River Power Company, Ltd	196,012,300
Great Lakes Power Company	173,606,547
Southern Canada Power Company	157,973,070
Price Brothers & Company	157,950,900
Ottawa Valley Power Company	139,417,890
Calgary Power Company	131,983,470
Auromian Power Company, Ltd	103,241,435
Seaboard Power Company	85,971,334
Ottawa Electric Company	82,777,267
Ontario and Minnesota Power Co	78,234,490
East Kootenay Power Company, Ltd	70,450,900
TOTAL	16,997,799,553

[/] All purchased by Hydro Electric Power Commission of Ontario.



POWER EQUIPMENT OF MANUFACTURING INDUSTRIES 1 IN CANADA 1 9 3 2

: Total : By : By power : Total : Power		1 9 3		- Vahama An	4-4	Tal and mile
		Mada3				:Electric
NIUSTRIES employed power in the capacity of total						
	INTERPLE	~		-		
## B.F. F.P. F.P.	INDUSTRIES	empt oyed				
Biscuits, confectionery, etc. 22,731 18,668 268 18,936 83,30 Freeries 23,1418 17,032 2,830 18,852 80,54 Flour and feed mills 123,030 63,627 2,979 66,606 54,14 51,16 51,14 51,16 51,14 51,16 51,14 51,16 51,14 51,16 51,14 51,16 51,14 51,16 51,14 51,16 51,14 51,16 51,14 5		H.P.				
Biscuits, confectionery, etc. 22,731 18,668 268 18,936 83,30 Flour and feed mills 123,030 63,627 2,979 66,606 54,114 796,51 Sugar refineries 21,539 6,859 14,255 21,114 98.03 Browning Code, footwear, etc. 65,330 60,420 697 61,117 96.51 Sugar refineries 21,539 6,859 14,255 21,114 98.03 Brown 2 Animal Products 100,069 73,515 1,981 75,596 75,548 Enther tanneries 27,673 20,373 20,373 73,62 20,373 20,3		ma(dan	0	00.057	0)15 555	75 ali
Reveries						
Flour and foed mills 123,030 63,627 2,979 66,606 54,114 Sugar refineries 63,330 60,420 697 61,117 96.51 Sugar refineries 21,539 6,859 14,255 21,114 98.03						
Rubber goods, footwear, etc. 63,330 60,420 697 61,117 96.51 Sugar refineries 21,539 6.859 14.255 21.114 98.03 Group 2 Animal Products 100.069 75.515 1.981 75.996 75.54 Butter and cheese 27,673 20,373 20,373 73.62 Leather tanneries 12.793 10,514 222 10,736 83.92 Elaughtering & meat packing 32,248 27,271 430 27,701 85.90 Group 3 Textiles & Textile Products 2.994.01 50,169 24.801 74.970 92.02 Dyeing, cleaning & laundry 14.762 9.241 5,320 14.561 98.64 Hosiery & knitted goods 19.222 11.687 31.855 14.872 77.37 Silk and artificial silk 14.423 13.998 13,998 97.05 Group 4 Wood and Paper Products 2.094.01 1,168.212 331.837 1,563 55.70 Planing mills, sash & door 47.262 26.958 1,028 27.986 59.21 Printing and publishing 2.006 22.523 22.523 95.74 Pully and Paper 1.662.146 1,031.670 294.812 1,326.482 79.81 Saw mills 2.77.12 20.6144 30.526 91.170 1 Group 5 Iron and Iron Products 43.377 21.839 1.97.7 44.556 99.80 Automobiles 43.377 21.839 1.97.7 44.556 99.80 Automobiles unplies 20.875 19.214 19.214 92.05 Bridge & structural steel 20.875 19.214 19.214 92.05 Bridge & structural steel 23.795 91.16 6.644 97.805 89.10 Group 6 Non-ferrous Metal 19.916 18.514 79.92 19.92 19.93 19.93 19.94 19.94 19.95 Brass and copper Electrical apparatus & supplies 87.657 19.214 19.214 92.05 Braden Froducts 19.92 18.596 16.753 269.318 80.47 Group 7 Non-metallic Mineral 19.92 18.596 16.603 33.636 89.40 Group 6 Non-ferrous Metal 19.92 18.596 16.693 39.00 Group 7 Non-metallic Mineral 20.948 175.864 1.93 30.26 Group 7 Non-metallic Mineral 20.948 175.864 1.93 30.26 Group 7 Non-metallic Mineral 20.948 175.865 19.23 Group 8 Monetallic Mineral 20.948 175.865 19.93 Group 7 Monetallic Mineral 20.948 175.864 Froducts (domestic clay) 23,405 15.833 30.2 16.135 80.47 Group 7 Monetallic Mineral 20.948 175.865 Froducts 10.946 29.95 Group 8 Minecellaneous Industries 10.216 10.166 Froducts 10.216 10.166 Froducts 10.216 10.166 Froduct		the second second				
Sugar refineries						
Butter and cheese						
Leather tanneries 12,793 10,514 222 10,736 83.90	Group 2 Animal Products	100,069	73.615	1,981	75,596	75.54
Slaughtering & meat packing 32,248 27,271 430 27,701 85,90						
Cotton yarn and cloth 189,915 132,786 38,536 171,322 90.21						
Troducts	Slaughtering & meat packing	32,248	27,271	430	27,701	85.90
Cotton yarn and cloth		190 015	172 786	70 576	171 722	00 21
Dyeing, cleaning & laundry						
## Hosiery & kmitted goods						
## Silk and artificial silk						-
Furniture	Silk and artificial silk					
Planing mills, sash & door 47,262 26,958 1,028 27,986 59,21 Printing and publishing 24,026 22,523 93.74 Pulp and Paper 1,662,146 1,031,670 294,812 1,326,482 79.81 Saw mills 257,172 20,644 30,526 51,170 19.90	Group 4 Wood and Paper Products	2,094,010	1,168,212	331,837	1,500,049	71.64
Printing and publishing Pulp and Paper 1,662,146 1,031,670 294,812 1,326,482 79.81 257,172 20,644 30,526 51,170 19.90 Oroup 5 Iron and Iron Products						
Pulp and Paper				1,028		
Saw mills				2011 07 2		
Agricultural implements 23,779 18,556 690 19,246 80,94			20 644			
Agricultural implements	Saw mills	271,112	20,077	50,520	91,170	13.30
Automobiles 43,377 21,839 19,717 41,556 95.80 Automobile supplies 20,873 19,214 19,214 92.05 Bridge & structural steel 28,093 27,073 570 27,643 98,40 Castings and forgings 65,868 61,401 1,066 62,467 94.84 Machinery 32,945 24,996 8,620 33,616 100.00 Primary iron and steel 237,063 126,118 32,542 158,660 66.93 Railway rolling stock 109,775 91,161 6,644 97,805 89,10 Group 6.— Non-ferrous Metal Products 19,192 18,514 340 18,854 98.24 Electrical apparatus & supplies 87,634 74,478 4,930 79,408 90.61 Non-ferrous metal smelting 334,675 252,565 16,753 269,318 80,47 Group 7.— Non-metallic Mineral Products 209,484 175,364 11,701 187,065 89.30 Cement 75,996 75,493 75,493 99.34 Clay products (domestic clay) 23,406 15,833 302 16,135 68.94 Coke and gas products 26,643 19,293 6,858 25,151 94,40 Petroleum 31,674 16,272 1,902 18,174 57.38 Group 8.— Chemicals and Chemical Products 29,23 32,970 5,977 38,947 73.59 Fertilizers 15,631 15,579 15,579 99.67 Group 9.— Miscellaneous Industries 57,283 49,368 49,368 86.18 1ce, artificial 10,216 10,166 10,166 99,51 Ship building and repairs 30,868 26,669 26,669 86.40 Total All Mamufacturing						
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Castings and forgings 65,868 61,401 1,066 62,467 94.84 Machinery 32,945 24,996 8,620 33,616 100.00 Primary iron and steel 237,063 126,118 32,542 158,660 66.93 Railway rolling stock 109,775 91,161 6,644 97,305 89.10 Group 6.— Non-ferrous Metal 19,192 18,514 340 18,354 98.24 Electrical apparatus & supplies 87,634 74,478 4,930 79,408 90.61 Non-ferrous metal smelting 334,675 252,565 16,753 269,318 80.47 Group 7.— Non-metallic Mineral 29,484 175,364 11,701 187,065 89.30 75,493 0 75,493 99.34 Clay products (domestic clay) 23,406 15,833 302 16,135 68.94 Coke and gas products 26,643 19,293 6,858 25,151 94.40 Petroleum 31,674 16,272 1,902 18,174 57.38 Group 8.— Chemicals and Chemical Products 105,671 78,109 7,213 85,322 80.74 Acids, alkalies and salts 52,923 32,970 5,977 38,947 73.59 Fertilizers 15,631 15,579 15,579 99.67 Group 9.— Miscellaneous Industries 57,283 49,368 49,368 86.18 1ce, artificial 10,216 10,166 10,166 99.51 Ship building and repairs 30,868 26,669 26,669 36.40 Total All Mamufacturing						
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### Railway rolling stock 109,775 91,161 6,644 97,805 89.10 Group 6 Non-ferrous Metal 450,271 354,327 22,023 376,350 83.58 Brass and copper 19,192 18,514 340 18,854 93.24 Electrical apparatus & supplies 87,634 74,478 4,930 79,408 90.61 Non-ferrous metal smelting 334,675 252,565 16,753 269,318 80.47 Group 7 Non-metallic Mineral 209,484 175,364 11,701 187,065 89.30 Cement 75,996 75,493 75,493 99.34 Clay products (domestic clay) 23,406 15,833 302 16,135 68.94 Coke and gas products 26,643 19,293 6,858 25,151 94.40 Petroleum 31,674 16,272 1,902 18,174 57.38 Group 8 Chemicals and Chemical 25,923 32,970 5,977 38,947 73.59 Fertilizers 15,631 15,579 15,579 99.67 Group 9 Miscellaneous Industries 57,283 49,368 49,368 86.18 Ice, artificial 10,216 10,166 10,166 99.51 Ship building and repairs 30,868 26,669 26,669 86.40 Total All Mamufacturing 22,027 35,400 26,669 86.40 Total All Mamufacturing 24,021 24,022 26,669 86.40 Total All Mamufacturing 24,022 26,669 26,669 86.40 Total All Mamufacturing 24,022 22,023 37,027 37,030		32,945		8,620	33,616	
Group 6 Non-ferrous Metal Products Brass and copper Electrical apparatus & supplies Non-ferrous metal smelting Products S7,634 T4,478 T9,900 T9,408 T0,675 T0,996 T5,493 T0,7965 T0,996 T0,997 T0,996 T0,996 T0,997 T0,996 T0,9						
Products	Railway rolling stock	109;775	91,161	6,644	97,805	89.10
Brass and copper						
Electrical apparatus & supplies 87,634 74,478 4,930 79,408 90.61 Non-ferrous metal smelting 334,675 252,565 16,753 269,318 80.47 Group 7 Non-metallic Mineral Products 209,484 175,364 11,701 187,065 89.30 75,493 99.34 75,493 99.34 75,493 99.34 75,493 99.34 75,493 99.34 75,493 99.34 75,493 99.34 75,493 99.34 75,493 99.34 75,493 99.34 26,643 19,293 6,858 25,151 94.40 Petroleum 31,674 16,272 1,902 18,174 57.38 94.40 1902 18,174 57.38 1902 18,174 5						
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Group 7 Non-metallic Mineral Products 209,484 175,364 11,701 187,065 89.30 Cement 75,996 75,493 75,493 99.34 Clay products (domestic clay) 23,406 15,833 302 16,135 68.94 Coke and gas products 26,643 19,293 6,858 25,151 94.40 Petroleum 31,674 16,272 1,902 18,174 57.38 Group 8 Chemicals and Chemical 105,671 78,109 7,213 85,322 80.74 Acids, alkalies and salts 52,923 32,970 5,977 38,947 73.59 Fertilizers 15,631 15,579 15,579 99.67 Group 9 Miscellaneous Industries 57,283 49,368 49,368 86.18 Ice, artificial 10,216 10,166 10,166 99.51 Ship building and repairs 30,868 26,669 26,669 86.40						
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Group 8 Chemicals and Chemical Products 105,671 78,109 7,213 85,322 80.74 Acids, alkalies and salts 52,923 32,970 5,977 38,947 73.59 Fertilizers 15,631 15,579 15,579 99.67 Group 9 Miscellaneous Industries 57,283 49,368 49,368 86.18 Ice, artificial 10,216 10,166 10,166 99.51 Ship building and repairs 30,868 26,669 26,669 86.40 Total All Manufacturing <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th></td<>						
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Total All Manufacturing						
Industries + 7,197,700 2,097,107 9,010,197 9,010,901 77,000		h 157 han	2 604 164	516 157	3 210 321	77.22
	THURSTIES +	7,177,720	2,097,107	720,271	7,-10,701	11000

⁺ Excluding central electric stations.

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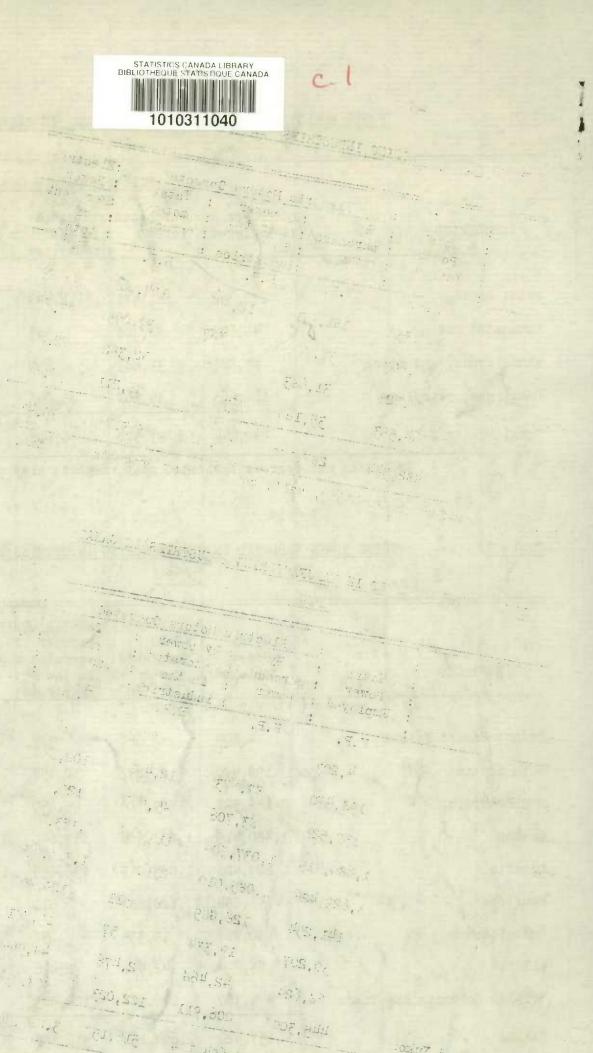
INDUSTRIES	0 0 0 0 0 0 0 0	Power Employed	: By : purchased : power	:By power	perated : Total : motor : capacity :	:Electric ! Power :Per cent : of : total
		H.P.	H.P.	H.P.	H.P.	P.C.
Metal mining		228,352	181,571	12,497	194,068	84.99
Non-metal mining		44,603	38,708	387	39,095	87.65
Sand, gravel and stone		44,826	31,683	699	32,382	72.24
Coal, gas, petroleum		164,563	35,168	63,043	98,211	59.68
Total Mining +		482,344	287,130	76,626	363,756	75.41

[/] Excluding non-ferrous smelting, salt, cement, clay products and lime.

TOTAL POWER EMPLOYED IN MANUFACTURING INDUSTRIES#IN CANADA Table 8. 1932

PROVINCES	: Total : Power : Employed :	By: purchased: power:	By power generated in the industries:	Total motor capacity	:Electric : Power :Per cent : of : total P.C.
Prince Edward Island	4,203	660	377	1,037	24.67
Nova Scotia	198,470	89,673	12,458	102,131	51.46
New Brunswick	159,521	83,706	45,950	129,656	81.28
Quebec	1,480,415	1,037,504	115,646	1,153,150	77.89
Ontario	1,629,426	1,085,019	236,659	1,321,678	81.11
Manitoba	141,254	128,889	511	129,400	91.61
Saskatchewan	30,207	19,334	57	19,391	64.19
Alberta	68,624	42,468	2,476	मेम , 9मेम	65.49
British Columbia and Yukon	445,300	206,911	102,023	308,934	69.38
CANADA	4,157,420	2,694,164	516,157	3,210,321	77.22

[#] Excluding central electric stations.



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