CANADA

DOMINION BUREAU OF STATISTICS

TRANSPORTATION & PUBLIC UTILITIES BRANCH

CENSUS OF INDUSTRY, 1933

CENTRAL ELECTRIC STATIONS IN CANADA

(Prepared in collaboration with the Dominion Water Power and Hydrometric Bureau, Department of the Interior)

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DOMINION BUREAU OF STATISTICS

TRANSPORTATION AND PUBLIC UTILITIES BRANCH

OTTAWA

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CENTRAL ELECTRIC STATION INDUSTRY, 1933

For the purpose of the census, central electric stations are defined as companies, municipalities, or individuals selling or distributing electric energy, whether generated by themselves, or purchased for resale. The stations are divided into two classes according to ownership, viz., (a) commercial, those operated by companies, or individuals, and (b) municipal, those operated by municipal, provincial, or federal governments. The stations are also divided according to operation into (a) generating, those stations generating power which they sell; many of them also purchase power to supplement their own output, and (b) non-generating, those stations which purchase all the power they sell. In this last class there were 25 stations which were holding generating equipment classed as auxiliary plant equipment. Seventeen of them purchased all their electric energy and the remaining eight generated only 311,000 kilowatt hours. This explains the rather anomalous item in table 13 showing the output of non-generating stations.

Included in these statistics are those of some stations engaged primarily in other industries, such as mining, manufacturing of pulp and paper, etc., which sell surplus power. For such plants, the statistics pertaining to the central electric station phase of the industry have been segregated as accurately as possible.

Stations are allowed to file returns for their fiscal years which are not calendar years in all cases. Consequently the output as recorded in this annual report will not coincide with the outputs of the twelve calendar months shown in the monthly reports. The various data, however, in the annual report are for comparable periods and the annual reports are also comparable.

The output of central electric stations rose steadily from 5,497,204,000 kilowatt hours in 1919, the first year for which the data were collected, to 18,093,802,000 kilowatt hours in 1930 and then declined for about two years. The index of monthly outputs reached a peak in May, 1930, and then declined more or less steadily to July, 1932; from then on it rose fairly steadily with only one extended decline in 1934 which was regained in two months to reach a new all time peak in November, 1934. The exports to the United States suffered the most during the decline, amounting to only 659,691,000 kilowatt hours in 1932 as against 1,632,614,000 kilowatt hours in 1927.

A comparatively new use for electricity is to produce steam in boilers specially constructed for that purpose. In January, 1924, less than 6 million kilowatt hours were used for this purpose, but in November, 1934, over 500 million kilowatt hours were consumed by electric boilers. The majority of these boilers are in pulp and paper mills and the revival of the paper industry in 1933 and 1934 caused a large increase in the consumption of electric power for both power and steam purposes. The total electric boiler consumption during 1933 amounted to 3,608,400,000 kilowatt hours, or over 20 per cent of the total production. It is sold at a very low rate and, when a more lucrative market develops, will be diverted to other uses. In some cases only off-peak power is used and in others 24-hour surplus power is used. There has also been developed a market in the United States for surplus power from the Niagara plants; these exports dwindled during the depression and practically ceased in 1932, but they were resumed in 1933 and for the year amounted to 84,351,500 kilowatt hours.

Electricity is exported from Canada only by license granted by the Electricity and Gas Inspection Service of the Department of Trade and Commerce, and the same branch of the department has jurisdiction over the export duty which has been imposed since April 1, 1925. During the fiscal year ended March 31, 1934, the export duty amounted to $244,474 as against only $87,745 for the previous year. The rate is three one-hundredths of one cent per kilowatt hour on electric energy exported with certain exports excepted. Below is a table showing the quantities of power produced for export for the calendar year 1933, also the amounts exported, the differences between the two quantities being the line losses. The data for this table were compiled from the annual reports of the Director of the Electricity and Gas Inspection Services.

KILOWATT HOURS PRODUCED FOR EXPORT AND EXPORTED TO THE UNITED STATES, 1933 (Calendar Year)

Company	Produced for Export Kilowatt Hours	Exported Kilowatt Hours
Hydro Electric Power Commission of Ontario	352,942,700	348,221,500
Hydro Electric Power Commission of Ontario (Surplus)	83,858,200	82,783,408
Cedar Rapids Manufacturing and Power Company, Ltd.	349,798,064	334,128,741
Canadian Niagara Power Company, Ltd.	193,416,400	188,646,789
Canadian Niagara Power Company, Ltd. (Surplus)	493,300	493,300
Ontario and Minnesota Power Company, Ltd.	16,538,050	16,538,050
Maine and New Brunswick Electrical Power Company	11,767,574	11,165,650
British Columbia Electric Railway Company, Ltd.	173,849	151,249
Northport Power and Light Company	254,732	254,732
Maritime Electric Company, Ltd.	495,240	495,240
Southern Canada Power Company	382,262	382,562
Northern British Columbia Power Company	42,210	42,210
Fraser Companies, Ltd.	5,816,800	5,803,400
Detroit and Windsor Subway Company	257,300	257,300
Total	1,016,236,981	989,364,131
Kilowatt hours produced for export and exported by central electric stations only	1,010,420,181	983,560,731

Of the total output of 17,338,990,000 kilowatt hours, 17,006,069,000 kilowatt hours, or over 98 per cent, were produced by water power, whereas only 330,933,000 kilowatt hours were produced by plants using only thermal engines and 1,988,000 kilowatt hours were produced by auxiliary equipment in hydraulic and non-generating stations.

The total hydraulic installation in all industries in Canada in 1933, as compiled by the Dominion Water Power and Hydrometric Bureau, was 7,332,070 horse power which was about 17 per cent of the total that the recorded falls would warrant installing under present day practices. The available and developed water power in Canada is shown in the following table.

POTENTIAL AND DEVELOPED WATER POWER IN CANADA

Province	Available 24-hour power at 80% efficiency		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six Months Flow	1933	1934
(1)	(2)	(3)	(4)	(5)
	H.P.	H.P.	H.P.	H.P.
Prince Edward Island	3,000	5,300	2,439	2,439
Nova Scotia	20,800	128,300	112,167	116,367
New Brunswick	68,600	169,100	133,681	133,681
Quebec	8,459,000	13,064,000	3,493,320	3,703,320
Ontario	5,330,000	6,940,000	2,355,105	2,355,755
Manitoba	3,309,000	5,344,500	390,925	390,925
Saskatchewan	542,000	1,082,000	42,035	42,035
Alberta	390,000	1,049,500	71,597	71,597
British Columbia	1,931,000	5,103,500	717,602	717,717
Yukon and Northwest Territories	294,000	731,000	13,199	13,199
CANADA	20,347,400	33,617,200	7,332,070	7,547,035

The figures in columns 2 and 3 are based only upon rapids, falls and power sites of which the actual drop or head possible of concentration is definitely known or reasonably well established. Many water-powers of greater or less capacity from coast to coast have not yet been recorded which will increase the totals.

With the construction of storage basins and other regulating works these potential power figures will be further increased. It is common practice, and feasible in most developments, to install equipment with capacity considerably greater than the theoretical continuous power of the water fall and on this basis it is estimated that the maximum installation capacity of the recorded water-powers of Canada is 43,700,000 horse-power.

The following table shows the provincial production plus imports less exports, the net amount being the consumption within each province including all line losses; the deliveries to electric boilers in each province are shown here segregated from other uses. The consumption of electric energy is further analysed in Table 13.

CONSUMPTION OF ELECTRIC ENERGY IN CANADA (INCLUDING LINE LOSSES)
(Thousands of Kilowatt Hours)

Province	Delivered to Electric Boilers	Other Uses and Line Losses	Total		Comparison of Totals 1933 - 1932 (Increase + Decrease -)	
			1933	1932	Kw. hrs.	Per cent
Prince Edward Island	-	4,765	4,765	4,662	+ 103	+ 2.21
Nova Scotia	-	330,436	330,436	279,854	+ 50,582	+ 18.07
New Brunswick	74,384	297,895	372,279	421,142	- 48,863	- 11.60
Quebec	2,854,406	4,597,562	7,451,968	6,845,565	+ 606,403	+ 8.86
Ontario	513,984	5,049,663	5,563,647	5,250,962	+ 312,685	+ 5.95
Manitoba	163,763	913,594	1,077,357	1,087,167	- 9,810	- .90
Saskatchewan	-	131,164	131,164	135,898	- 4,734	- 3.48
Alberta	-	184,792	184,792	197,395	- 12,603	- 6.38
British Columbia and Yukon	1,863	1,237,766	1,239,629	1,170,273	+ 69,356	+ 5.93
CANADA	3,608,400	12,747,637	16,356,037	15,392,918	+ 963,119	+ 6.26

TABLE 1 - COMPARATIVE SUMMARY, 1924-1933

There has been little change in the number of plants operated during the past decade but the investment has increased from $628,565,093 in 1924 to $1,386,532,055, or by 120 per cent. The output almost doubled, increasing from 9,315,277,000 to 18,093,802,000 kilowatt hours in 1930 and to 17,338,990,000 kilowatt hours in 1933. The number of domestic service customers, or the number of homes using electricity, increased by 382,296 or 39 per cent, amounting to 1,371,806 in 1933. Although the output about doubled the rated capacity in main plant increased from 2,282,046 K.V.A. in 1924 to 5,491,685 K.V.A., or by 140 per cent. In computing the revenues in this table inter-station payments have been deducted and the payments by consumers and United States importers only have been considered revenue.

TABLE 2 - POWER PLANTS

The definition of a central electric station as adopted for census purposes was given at the beginning of this report. Some organizations operate several systems which are in different municipalities and which are not connected by transmission lines, and, in other cases, many municipalities are served from one power plant or several inter-connected plants. The organizations reporting are counted as they report. If a commercial organization makes a separate report for each of its subsidiary companies, each such subsidiary company is counted, and if it includes them all in one report, they are counted as only one organization. The nature of control is so varied that it is not practicable to do otherwise. The power plants shown in this table are individual plants, counted irrespective of ownership or location. In some cases, two or more of these are operated by one company, some of them being close together, and others, miles apart. During the year there was a net increase in plants operated of 3. In Ontario, Alberta and British Columbia increases of 1, 2 and 3 plants, respectively, were recorded and in Nova Scotia, Manitoba and Saskatchewan there was a total decrease of 3 plants.

TABLE 3 - CAPITAL

The capital employed in the industry is reported under four heads, viz., generation, transmission, distribution and general. Generation includes investments in power houses and sites, dams, penstocks, flumes, storage and regulating structures, surge tanks, storage basins, etc., and equipment in power houses, except step-up transformers or other transmission equipment. Transmission includes investments in receiving stations and sites, rights of way of transmission lines and step-up transformers. Distribution includes investments in substations and sites and rights of way of distribution lines, switchboards and step-down transformers in receiving stations and substations, distribution lines, line transformers, meters, etc. General includes investments in office buildings, sites and fixtures, materials and supplies on hand, cash, trading and operating accounts and bills receivable. The total represents the capital employed in the industry. The capital is the total, as at December 31, of stations operating and does not include any investments by new organizations not yet operating, but does include expenditures by organizations operating plants which have been made for future installations of equipment. Consequently the averages per horse power and per K.V.A. are increased by the inclusion of such capital. The averages of investment per mile of distribution and transmission line are more indicative of the different types of lines in each province than of comparative costs of the same types. The total investment of $1,386,532,055 as at December 31, 1933, was the largest investment in any manufacturing industry in Canada and was an increase over the 1932 total of $50,645,068. Quebec stations which accounted for 44 per cent of the total investment showed an increase during the year from $574,953,411 to $606,904,478. Ontario stations increased from $473,717,409 to $489,514,618 and investments in the three Prairie Provinces showed small decreases. The averages of total capital per horse power and per K.V.A. include all transmission, distribution and general capital, but the averages of generation capital per rated unit of power equipment include only investments in power houses, etc. as described above.

TABLE 4 - REVENUES

The schedule required a division of customers, consumption and revenue under the following headings; (1) farm service, (2) domestic service which includes lighting and all other uses in private residences, (3) commercial light, (4) power, small, 50 KW. and under, (5) power, large, over 50 KW.,

(6) sales to distributing companies, and (7) street lighting, also the quantity of electricity supplied without charge for street lighting, to public buildings, etc. The revenue is the gross revenue less cost of power or is the revenue received from the consumers, except where power is purchased by a station in one province from a station in another province the cost of such power is not deducted in computing provincial data, but is deducted in computing the Dominion totals. In reports prior to 1932 this exception was not made and consequently the revenues of Ontario, New Brunswick and Alberta, which purchased power from other provinces, were lower than they should have been. For the last two provinces the differences were slight, but for Ontario in 1931 revenue from large power would have been increased from $20,964,502 to $27,253,951 and total revenue would have been increased by the same amount if computed as in 1932 and 1933. Also, by dividing this total revenue by the kilowatt hours generated plus the kilowatt hours imported, the average revenue per kilowatt hour sold would have been reduced from 0.95 to 0.81 cent in 1931. The average revenues per kilowatt hour sold are affected by many factors and are not always indicative of the relative costs for similar services. The averages for domestic services and for commercial lighting are for more or less identical services, but even here the source of supply, the firm power load, the market for off-peak and surplus power, and the cost of generation, transmission and distribution all affect the rates. Domestic service data are discussed further at the end of the report. As might be expected, Quebec stations with their enormous sales to pulp and paper mills showed a smaller proportion of revenue from domestic service than any other stations although greater in dollars than those in other provinces except Ontario. In computing the average revenue per kilowatt hour for all purposes all line losses were included, but, for domestic service and farm services and for commercial light, line losses were not included, the consumption for these two services being measured at the consumers' meters. The average revenue per kilowatt hour consumed for each province is the revenue received from ultimate consumers within each province plus revenue received for power exported from the province, divided by the total kilowatt hours so sold including all line losses.

TABLE 5 - EXPENSES

These data include only the four items, (1) salaries and wages, (2) fuel, (3) taxes, and (4) cost of power. The last is an inter-industry expense and could very well be omitted from the expenses of the industry as a whole. It shows, however, the extent of purchases of power by the different groups of stations. Salaries were reduced in 1932 and again in 1933 to $21,431,877 from $23,261,166 for the previous year. The cost of fuel and power was higher, but taxes were lower than in 1932. Taxes paid by municipal systems include taxes on commercial plants acquired by the Ontario provincial system and continued, and, in Manitoba, Saskatchewan and Alberta, taxes paid by the municipal systems of Winnipeg, Saskatoon, Lethbridge and Calgary accounted for practically the total amount. Taxes paid by commercial stations amounted to $5,372,581, or 6.22 per cent of their gross revenues. Over half of this was paid by Quebec stations where the tax amounted to 5.88 per cent of gross revenues, or 0.03 cent per kilowatt hour of output.

TABLE 6 - EMPLOYEES

There was a decrease in the number of employees from 1932 of 678, or 4.4 per cent. The decreases were general throughout all the provinces except Prince Edward Island. The largest decreases were in Quebec and Manitoba where cuts of 197, or 6 per cent, and 141, or 12 per cent, respectively, were made. The table below analyses the rates of wages paid to those employees on hourly wage bases.

Number of Wage-earners in month of Highest Employment whose Regular Hours per Week were:

Hrs. per Week	40 hrs or less	41-43	44	45-47	48	49-50	51-53	54	55	56-59	60	Over 60 hrs	Total
P.E. Island	9	-	-	-	1	-	-	8	-	16	1	1	36
Nova Scotia	55	14	30	4	284	23	2	67	2	98	33	28	640
New Brunswick	40	2	-	39	134	-	2	11	-	16	50	10	304
Quebec	142	108	7	28	729	140	144	55	15	393	385	149	2,295
Ontario	848	10	435	84	919	768	19	263	65	259	537	108	4,315
Manitoba	130	1	197	14	132	11	11	6	3	8	18	-	532
Saskatchewan	38	-	65	18	94	5	4	51	6	1	10	48	340
Alberta	157	-	24	-	220	4	-	-	-	3	-	-	408
B.C. & Yukon	244	8	73	-	477	3	2	1	-	37	-	1	846
CANADA	1,663	143	831	187	2,990	954	184	462	91	831	1,034	345	9,715

TABLE 7 - CUSTOMERS

As explained under table 4, the schedule asked for a division of customers into seven classes, but due to inability of many of the stations to make complete segregation between domestic service and farm customers these two have been combined. Each municipality using electricity for street lighting has been counted as one street lighting customer. In some cases the current was supplied by commercial stations and in others the municipality itself distributed it. The provinces having high percentages of urban populations had the greatest densities of domestic service customers. British Columbia led with an average of 17.83 domestic service customers per 100 population, Ontario followed with an average of 16.98, and Quebec was next with 12.97. Nova Scotia, Ontario, Manitoba and British Columbia showed a total increase in domestic service customers of 15,734, Ontario accounting for 13,004 of them, but the other provinces showed decreases from the previous year. Although the fuel stations generated only 2 per cent of the total output they served 87,064 domestic service customers, or 6.4 per cent of the total. The changes in numbers of customers of fuel stations in Nova Scotia and Quebec are due to reclassification and transfer of customers from one class of station to another more than actual increase or decrease of customers.

TABLE 8 - POLE LINE MILEAGE

The pole line mileage is divided into two divisions, (a) transmission, which includes lines from power houses to receiving stations, and (b) distribution, which includes lines from receiving stations to substations and to customers and, if the power is not stepped up in any power house for transmission, all the pole line mileage of that system is included with the distribution mileage. These mileages are counted irrespective of the number of circuits carried on the poles and towers. Increases in pole line mileage were recorded in every province except Quebec, Ontario leading with a gain of 2,500 miles and British Columbia coming second with 96 miles, the total increase for Canada being 2,725 miles.

TABLES 9-10-11 - EQUIPMENT

The equipment of the power houses has been divided into two classes, main plant and auxiliary, or standby equipment. The auxiliary plant equipment includes all steam engines and turbines and internal combustion engines and dynamos driven by them in hydro-electric stations and all the equipment in non-generating stations. All other equipment is classed as main plant equipment and includes water wheels and turbines and generators driven by them in hydro-electric stations and all equipment in plants using fuel only. It is quite possible that some of the fuel stations have equipment held as standby equipment for use only in emergencies or for occasional peaks and also that some hydraulic stations have hydraulic equipment similarly held, but it is all classified as main plant equipment. Although a few of the hydro-electric stations use their steam equipment during periods of low water and during periods of heavy demand, the greater part of it is held strictly in reserve for emergencies, only 1,677,000 kilowatt hours being generated during the year by this auxiliary equipment. In previous years the greater part of this output of auxiliary equipment in hydro-electric plants was produced by British Columbia stations, but such operations were greatly reduced during the last three years. During the year the net increase in main plant equipment was 272,352 horse power in primary power and 213,481 K.V.A. in dynamo capacity. Quebec stations added 146,162 horse power, Ontario stations added 134,025 horse power and British Columbia stations, 576 horse power. During the year there was a net addition of 6 hydraulic turbines of 269,738 horse power capacity, including 4 of 34,000 horse power each in Quebec stations and 2 of 66,000 horse power each in Ontario stations. There was a net decrease of one steam reciprocating engine and one steam turbine while internal combustion engines were increased by 7 in number and 335 in horse power.

TABLE 13 - ELECTRIC ENERGY GENERATED

The electric energy generated is the output at the power plants less power used for the operation of the plants, and consequently includes all transformer and line losses entailed in delivering power to the consumers. All the large stations meter their output and for those stations which have no watt hour meters, the kilowatt hours are estimated as best possible. The K.V.A. capacities shown were the rated dynamo capacities at the close of the year of both main and auxiliary plant of generating stations, but the ratios of output to maximum capacity were computed from the kilowatt hours generated and the rated capacities of dynamos multiplied by the number of hours during the year they were available. Thus, the maximum capacity of a 1,000 K.V.A. dynamo for a year would be 8,760,000 kilowatt hours, but, if installed

on November 30, its maximum capacity would be only 744,000 kilowatt hours. Consequently, the ratios are directly comparable for each year irrespective of when large additions are made to the generating capacity of the industry and the rising and falling of the ratios indicate the relative position of the supply to the demand on a kilowatt hour basis. This ratio for 1933 was 35.9 per cent, the same as in 1932, and was the lowest during the past decade. The highest ratio was reached in 1928 with 51.2 per cent and the ratio has decreased each succeeding year to 1932. It is quite obvious that the output will never reach 100 per cent of the rated capacity of the industry and it is also apparent that the present installations could meet a demand considerably greater than the 1933 load. A few stations have found a market for their off-peak and surplus power by selling it for use in electric boilers and this class of sale has been growing quite rapidly, particularly in 1933 and 1934. The electricity sold for use in electric boilers during 1931, 1932 and 1933 was as follows.

ELECTRICITY SOLD FOR USE IN ELECTRIC BOILERS
(Thousands of Kilowatt Hours

	1931	1932	1933
January	146,422	221,722	286,196
February	140,603	216,103	292,797
March	145,948	238,503	301,571
April	191,119	258,160	291,516
May	153,920	219,912	283,088
June	128,333	200,720	265,146
July	117,200	193,827	266,831
August	119,633	210,034	287,228
September	126,849	216,719	249,033
October	184,531	278,852	291,645
November	209,351	289,223	391,597
December	208,116	292,564	401,752
TOTAL	1,872,025	2,836,339	3,608,400

At the bottom of the table are shown the quantities of power used for the various services. Some of the items are partly estimated, particularly power, street lighting and line losses, but, because of the large percentage which is measured, any errors in the estimates would be a small percentage of the total and would not destroy the value of the data for statistical purposes.

TABLE 14 - FUEL

The total fuel bill was slightly higher than in 1932, amounting to $1,845,928, the whole increase being in wood and imported bituminous coal. The total production of power from this fuel was 332,921,000 kilowatt hours, or an average cost for fuel of .54 cent per kilowatt hour. The chief factors in this relatively high fuel cost per unit of output are the size of the plants and the large percentage of the total load which was domestic service. Approximately 20 per cent of the total sales by fuel stations was for domestic service and in Saskatchewan, where all stations are fuel, and in Prince Edward Island, where a large percentage of the service is supplied by fuel stations, the ratios were 27.7 per cent and 33.2 per cent, respectively, as against only 3.2 per cent in Quebec and 10.1 per cent for all of Canada.

DOMESTIC SERVICE

On the following page is a table bringing together and analysing the domestic service data for each province. The concentration of population in the cities, towns and villages having electric service would affect the number of customers, the number per 100 population, and ratios of consumption to total provincial consumptions and to the domestic consumption in Canada. The price would affect consumption, average bill, average cost per kilowatt hour, and, to a lesser degree, the number of customers. The habits and customs of the people also would have an effect on the consumption. British

Columbia ranked first in density of customers, Ontario was second and Quebec third. The annual average bills for domestic service were remarkably close together in all the provinces, especially in view of the large differences in consumptions and cost per kilowatt hour. This indicates that with adequate supply low rates greatly induce increased consumption. Manitoba showed by far the lowest average cost per kilowatt hour and the largest consumption per customer and per capita. These were largely affected by the flat rate for water heaters in Winnipeg which increases the consumptions and reduces the average cost per kilowatt hour.

DOMESTIC SERVICE
1933

Province	Number of Customers		Average Bill (For) (Year)	Average per Kilowatt Hour	Average Annual Consumption		Consumption by Domestic Service	
	Total	Per 100 Population			Per Customer	Per Capita	Per cent of Total Provincial Consumption	Per cent of Dominion Dom. Serv. Consumption
			$	¢	Kw.Hr.	Kw.Hr.		
P.E. Island	3,970	4.46	34.06	8.54	399	18	33.2	0.1
Nova Scotia	47,124	9.03	25.46	5.50	463	42	6.6	1.3
New Brunswick	34,959	8.32	27.30	5.09	536	45	5.0	1.1
Quebec	385,175	12.97	20.24	3.25	623	81	3.2	14.6
Ontario	598,347	16.98	27.18	1.77	1,534	260	16.5	55.6
Manitoba	72,935	10.10	37.62	1.00	3,771	381	25.5	16.7
Saskatchewan	44,319	4.66	40.07	4.89	819	38	27.7	2.2
Alberta	57,330	7.57	30.15	5.83	517	39	16.1	1.8
British Columbia and Yukon	127,647	17.83	26.30	3.07	858	153	8.8	6.6
CANADA	1,371,806	12.84	26.21	2.18	1,203	155	10.1	100.0

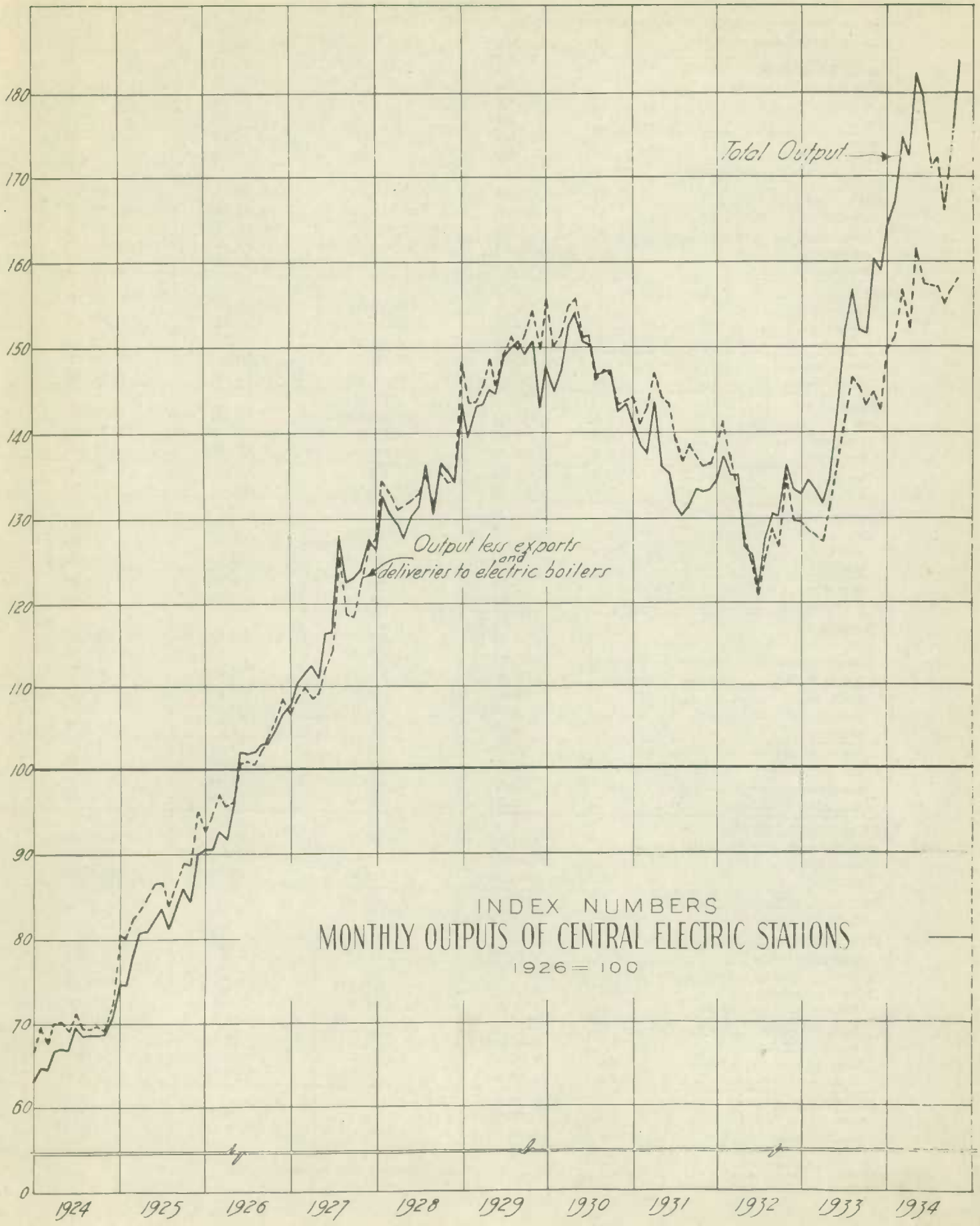
Total Output
Output less exports and deliveries to electric boilers
INDEX NUMBERS
MONTHLY OUTPUTS OF CENTRAL ELECTRIC STATIONS
1926 = 100
180
170
160
150
140
130
120
110
100
90
80
70
60
0
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934

Table 1 - COMPARATIVE SUMMARY, 1933-1924

Principal Data by Class of Station	1933	1932	1931	1930
Electric Power Plants-				
Total	575	572	559	587
Hydraulic	314	312	307	311
Fuel	261	260	252	276
Commercial	403	402	396	421
Municipal	172	170	163	166
Capital-				
Total ....$	1,386,532,055	1,335,886,987	1,229,988,951	1,138,200,016
Commercial ....$	913,946,953	880,013,400	785,915,480	723,890,071
Municipal ....$	472,585,102	455,873,587	444,073,471	414,309,945
Generating ....$	1,240,169,785	1,191,499,567	1,092,292,089	995,701,285
Non-generating ....$	146,362,270	144,387,420	137,696,862	142,498,731
Revenue(1)				
Total ....$	117,532,081	121,212,679	122,310,730	126,038,145
Commercial ....$	73,082,078	73,124,089	72,103,930	73,261,572
Municipal ....$	44,450,003	48,088,590	50,206,800	52,776,573
Generating ....$	98,735,084	100,821,712	101,475,523	104,632,540
Non-generating ....$	18,796,997	20,390,967	20,835,207	21,405,605
Expenses(2)				
Total ....$	73,051,651	74,306,251	75,235,767	74,209,469
Commercial ....$	29,169,633	30,349,320	32,418,131	33,712,063
Municipal ....$	43,882,018	43,956,931	42,817,636	40,497,406
Generating ....$	38,608,455	40,262,157	41,336,373	40,646,659
Non-generating ....$	34,443,196	34,044,094	33,898,894	33,562,810
Pole Line Mileage-				
Total	56,570	53,845	52,399	48,814
Commercial	25,129	25,010	24,299	23,614
Municipal	31,441	28,835	28,100	25,200
Generating	43,625	40,675	39,709	35,707
Non-generating	12,945	13,170	12,690	13,107
Customers-				
Total	1,666,882	1,657,454	1,632,792	1,607,881
Domestic service(3)	1,371,806	1,357,462	1,336,721	1,317,324
Commercial light	244,283	248,487	244,634	238,847
Power (small)	40,641	28,942	25,913	24,836
Power (large)	8,160	20,593	23,583	25,150
Street lighting	1,992	1,970	1,941	1,724(5)
Commercial stations	776,581	776,400	758,285	745,608
Municipal stations	890,301	881,054	874,507	862,158
Generating stations	843,324	846,420	835,460	814,268
Non-generating stations	823,558	811,034	797,332	793,498
Electric Energy Generated-				
Total Kilowatt Hours (thousands)	17,338,990	16,052,057	16,330,567	18,093,802
Commercial	13,665,974	12,338,216	12,191,139	12,937,014
Municipal	3,673,016	3,713,841	4,139,707	5,156,788
Exports of Electricity to the United States (thousands) (6) .... Kw.H.	983,561	659,691	1,227,036	1,612,281
Imports of Electricity from the United States (thousands) (6) .... Kw.H.	608	552	5,446	5,757
Equipment in Generating Stations (Main Plant Only)				
Total Primary Power ....H.P.	6,616,006	6,343,654	5,706,757	5,401,108
Total in Commercial Stations ....H.P.	4,707,096	4,577,493	4,046,810	3,794,819
Total in Municipal Stations ....H.P.	1,908,910	1,766,161	1,659,947	1,606,289
Total Secondary Power .... K.V.A.	5,491,685	5,278,204	4,727,376	4,474,565
Total in Commercial Stations .... K.V.A.	3,956,475	3,850,009	3,388,926	3,181,428
Total in Municipal Stations .... K.V.A.	1,535,210	1,428,195	1,338,450	1,293,437
Auxiliary Plant Equipment-				
Primary Power ....H.P.	193,569	184,879	184,043	171,453
Secondary Power .... K.V.A.	164,732	157,077	157,221	145,678

(1) Duplicates excluded.
(2) Includes wages, cost of power and fuel for 1933-1924 and for 1933-1925 taxes but not other expenses.
(3) Farm service is included with domestic service.

TABLE 1 - COMPARATIVE SUMMARY, 1933-1924

1929	1928	1927	1926	1925	1924
585	601	629	595	563	532
300	300	302	294	284	273
285	301	327	301	279	259
420	428	432	393	365	333
165	173	197	202	198	199
1,055,731,532	956,919,603	866,825,285	756,220,066	726,721,087	628,565,093
685,771,270	614,910,399	528,070,964	430,817,426	409,862,801	326,554,580
369,960,262	342,009,204	338,754,321	325,402,640	316,858,286	302,010,513
926,103,973	835,422,031	750,703,270	647,850,154	625,970,883	532,016,164
129,627,559	121,497,572	116,122,015	108,369,912	100,750,204	96,548,929
122,883,446	112,326,819	104,033,297	88,933,733	79,341,584	74,616,863
70,874,794	64,575,700	59,320,175	47,911,555	42,195,543	39,033,665
52,008,652	47,751,119	44,713,122	41,022,178	37,146,041	35,583,198
102,704,833	92,722,293	86,369,058	72,123,290	63,547,553	59,861,915
20,178,613	19,604,526	17,664,239	16,810,443	15,794,031	14,754,948
67,432,418	62,330,860	60,169,781	52,766,799	47,635,531	40,887,779
31,888,591	30,961,337	28,704,496	24,622,619	21,325,649	16,777,557
35,543,827	31,369,523	31,465,285	28,144,180	26,309,882	24,110,222
36,713,723	33,837,618	31,920,941	27,655,269	24,857,279	20,198,257
30,718,695	28,493,242	28,248,840	25,111,530	22,778,252	20,689,522
42,913	37,333	33,573	29,695	27,653	26,654
22,356	18,875	16,747	14,257	13,047	12,102
20,557	18,458	16,826	15,438	14,606	14,552
30,718	25,524	23,246	20,005	18,372	17,340
12,195	11,809	10,327	9,690	9,281	9,314
1,555,583	1,464,005	1,381,968	1,337,562	1,279,731	1,200,950
1,292,481	1,207,457	1,142,512	1,110,637	1,063,530	989,510
233,854(4)	215,728	199,431	188,553	180,994	176,444
(28,001	(40,820	(40,025	(38,372	(35,207	(34,996
(1,547	(-	(-	(-	(-	(-
.....	.....	.....	.....	.....	.....
733,698	677,223	622,823	584,760	559,172	521,064
822,185	786,782	759,145	752,802	720,559	679,886
796,298	728,872	699,874	680,717	653,032	610,206
759,585	735,133	682,094	656,845	626,699	590,744
17,962,515	16,337,804	14,549,099	12,093,445	10,110,459	9,315,277
12,774,107	11,460,974	9,944,422	7,797,480	6,527,103	6,024,312
5,188,408	4,876,830	4,604,677	4,295,965	3,583,356	3,290,965
1,444,524	1,587,761	1,632,614	1,506,002	1,285,540	1,302,317
6,133	5,223	5,020	5,354	.....	.....
4,925,555	4,627,667	4,173,349	3,769,323	3,569,527	2,849,450
3,523,625	3,268,350	2,797,055	2,423,244	2,243,318	1,701,793
1,401,930	1,359,317	1,376,294	1,346,079	1,326,209	1,147,657
4,048,019	3,764,331	3,385,227	2,995,387	2,844,709	2,282,046
2,940,210	2,690,097	2,297,005	1,938,048	1,803,545	1,401,471
1,107,809	1,074,234	1,088,222	1,057,339	1,041,164	880,575
171,888	159,233	145,047	176,865	173,170	168,102
146,251	135,440	121,863	145,828	142,421	136,755

(4) Includes small power customers in 1929.
(5) Revised.
(6) By central electrical stations only; see page 2.

TABLE 2 - ELECTRIC POWER PLANTS, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
Total Number of Generating Stations	575	11	47	15
Per cent of total for Canada	100.00	1.91	8.17	2.61
Commercial	403	9	23	10
Hydraulic	211	8	13	4
Fuel	192	1	10	6
Municipal	172	2	24	5
Hydraulic	103	-	20	3
Fuel	69	2	4	2
With water wheels and turbines	314	8	33	7
With steam engines only	37	-	1	2
With steam turbines only	18	1	7	1
With gas or oil engines only	194	2	6	4
With both steam engines and turbines	7	-	-	1
With both steam and gas or oil engines	5	-	-	-
With alternating current dynamos only	430	10	44	10
With direct current dynamos only	141	1	3	4
With both alternating and direct current dynamos	4	-	-	1
Commercial Organizations	x 363	8	26	21
Number generating power	282	7	13	9
Number buying power for redistribution	80	1	13	12
Municipalities	x 464	2	29	14
Number generating power	82	2	11	4
Number buying power for redistribution	381	-	18	10
Auxiliary Plants	65	2	8	6
To hydraulic stations	40	2	3	-
To non-generating stations	25	-	5	6

x - Organizations operating in two or more provinces are not shown under provinces, but are included in total.

TABLE 2 - ELECTRIC POWER PLANTS, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
96	131	27	120	64	64
16.70	22.78	4.70	20.87	11.13	11.13
82	64	13	92	55	55
80	60	4	-	5	37
2	4	9	92	50	18
14	67	14	28	9	9
12	59	3	-	1	5
2	8	11	28	8	4
92	119	7	-	6	42
-	10	4	1	12	7
2	-	-	4	2	1
2	2	14	112	39	13
-	-	1	3	2	-
-	-	1	-	3	1
92	125	20	44	31	54
3	6	6	76	32	10
1	-	1	-	1	-
67	50	16	74	51	49
46	42	11	72	46	36
21	8	5	2	5	13
25	324	17	21	15	16
9	18	10	15	6	7
16	306	7	6	9	9
6	13	6	-	9	15
6	8	2	-	7	12
-	5	4	-	2	3

TABLE 3 - CAPITAL, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	$	$	$	$
Total Capital	1,386,532,055	1,104,155	30,891,582	31,579,952
Per cent of total for Canada	100.00	0.08	2.23	2.28
Generation	866,615,305	587,775	19,241,816	22,882,815
Transmission	212,013,014	...	4,345,180	3,472,023
Distribution	221,359,812	431,289	5,228,300	4,076,350
General	86,543,924	85,091	2,076,286	1,148,764
Total Capital in Commercial Stations	913,946,953	934,147	14,219,070	23,034,308
Generation	641,570,337	488,748	6,094,712	18,850,433
Transmission	115,039,075	...	2,807,547	1,733,791
Distribution	95,863,375	377,885	3,898,461	1,637,112
General	61,474,166	67,514	1,418,350	812,972
Non-generating stations	36,600,667	5,000	5,882,573	2,000,805
Generating stations	877,346,286	929,147	8,336,497	21,033,503
Hydraulic stations	854,022,857	108,617	3,257,243	17,673,222
Fuel stations	23,323,429	820,530	5,079,254	3,360,281
Total Capital in Municipal Stations	472,585,102	170,008	16,672,512	8,545,644
Generation	225,044,968	99,027	13,147,104	4,032,382
Transmission	96,973,939	...	1,537,633	1,738,232
Distribution	125,496,437	53,404	1,329,839	2,439,238
General	25,069,758	17,577	657,936	335,792
Non-generating stations	109,761,603	...	1,260,817	1,517,972
Generating stations	362,823,499	170,008	15,411,695	7,027,672
Hydraulic stations	342,605,616	...	14,977,418	5,009,346
Fuel stations	20,217,883	170,008	434,277	2,018,326
Total Capital in Non-generating Stations	146,362,270	5,000	7,143,390	3,518,777
Generation	2,447,197	...	710,897	642,961
Transmission	6,819,901	...	1,495,265	226,973
Distribution	119,718,595	5,000	3,795,523	2,051,312
General	17,376,577	...	1,141,705	597,531
Total Capital in Generating Stations	1,240,169,785	1,099,155	23,748,192	28,061,175
Generation	864,168,108	587,775	18,530,919	22,239,854
Transmission	205,193,113	...	2,849,915	3,245,050
Distribution	101,641,217	426,289	1,432,777	2,025,038
General	69,167,347	85,091	934,581	551,233
Hydraulic stations	1,196,628,473	108,617	18,234,661	22,682,568
Fuel stations	43,541,312	990,538	5,513,531	5,378,607
TOTAL CAPITAL				
Average per H.P. of primary power	210	200	215	241
Average per H.P. including auxiliary equipment	204	194	198	231
Average per K.V.A. of dynamo capacity	252	224	258	285
Average per K.V.A. including auxiliary equipment	245	222	238	274
Generation				
Average cost per H.P.(including auxiliary equipment)-				
In all generating stations	127	103	128	170
In hydraulic stations	130	108	177	178
In fuel stations	80	103	64	137

TABLE 3 - CAPITAL, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
$	$	$	$	$	$
606,904,478	489,514,618	x 77,865,127	x 25,340,879	27,345,796	95,985,468
43.77	35.30	5.62	1.83	1.97	6.92
442,493,196	259,008,863	44,278,956	12,424,437	12,835,997	52,861,450
72,781,609	98,581,008	11,206,425	4,248,293	6,633,946	10,744,530
48,950,167	106,710,143	17,723,139	7,443,107	6,944,413	23,852,904
42,679,506	25,214,604	4,656,607	1,225,042	931,440	8,526,584
598,992,103	105,139,024	44,177,072	12,205,506	21,353,099	93,892,624
437,960,271	78,187,428	31,003,383	6,144,166	10,772,917	52,068,279
72,458,329	13,091,863	5,626,161	2,163,069	6,486,482	10,671,833
46,257,439	8,786,683	5,552,095	3,212,167	3,426,552	22,714,981
42,316,064	5,073,050	1,995,433	686,104	667,148	8,437,531
577,083	2,460,322	916,304	1,721,169	80,439	22,956,972
598,415,020	102,678,702	43,260,768	10,484,337	21,272,660	70,935,652
598,348,773	102,643,834	42,857,903	...	18,645,603	70,487,662
66,247	34,868	402,865	10,484,337	2,627,057	447,990
7,912,375	384,375,594	33,688,055	13,135,373	5,992,697	2,092,844
4,532,925	180,821,435	13,275,573	6,280,271	2,063,080	793,171
323,280	85,489,145	5,580,254	2,085,224	147,464	72,697
2,692,728	97,923,460	12,171,044	4,230,940	3,517,861	1,137,923
363,442	20,141,554	2,661,174	538,938	264,292	89,053
690,751	96,586,780	4,817,940	1,819,982	2,106,994	960,367
7,221,624	287,788,814	28,870,115	11,315,391	3,835,703	1,132,477
5,445,098	287,622,570	28,276,486	...	237,481	1,037,217
1,776,526	166,244	593,629	11,315,391	3,648,222	95,260
1,267,834	99,047,102	5,734,244	3,541,151	2,187,433	23,917,339
...	295,633	653,973	...	62,054	81,679
17,000	479,773	2,266,164	863,067	85,331	1,386,328
1,186,479	88,187,422	2,479,502	2,436,904	2,013,762	17,562,691
64,355	10,084,274	334,605	241,180	26,286	4,886,641
605,636,644	390,467,516	72,130,883	21,799,728	25,158,363	72,068,129
442,493,196	258,713,230	43,624,983	12,424,437	12,773,943	52,779,771
72,764,609	98,101,235	8,940,261	3,385,226	6,548,615	9,358,202
47,763,688	18,522,721	15,243,637	5,006,203	4,930,651	6,290,213
42,615,151	15,130,330	4,322,002	983,862	905,154	3,639,943
603,793,871	390,266,404	71,134,389	...	18,833,084	71,524,879
1,842,773	201,112	996,494	21,799,728	6,275,279	543,250
198	244	177	187	212	171
196	239	165	187	181	157
231	303	219	220	261	220
229	296	203	220	220	201
143	127	93	92	85	86
144	127	93	..	111	86
57	126	165	92	46	89

x - Capital invested in one hydraulic station in Saskatchewan included under Manitoba.

TABLE 4 - REVENUE, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	$	$	$	$
REVENUES				
Revenue from sale of electric energy	117,532,081	274,658	4,463,944	x 3,203,198
For domestic service	35,953,823	135,231	1,199,951	954,423
For commercial light	19,496,632	69,941	673,890	441,705
For power (small)	8,232,437	29,823	309,445	202,603
For power (large)	49,142,587	19,529	2,087,169	1,512,755
For street lighting	4,706,602	20,134	193,489	91,712
Revenue of Commercial Stations	73,082,078	224,670	2,943,299	2,179,102
Non-generating	4,474,178	543	1,112,251	346,784
Generating	68,607,900	224,127	1,831,048	1,832,318
Hydraulic	64,341,139	20,394	370,516	1,408,001
Fuel	4,266,761	203,733	1,460,532	424,317
Revenue of Municipal Stations	44,450,003	49,988	1,520,645	1,024,096
Non-generating	14,322,819	...	280,450	323,869
Generating	30,127,184	49,988	1,240,195	700,227
Hydraulic	25,570,274	...	1,131,490	493,554
Fuel	4,556,910	49,988	108,705	206,673
Revenue of non-generating stations	18,796,997	543	1,392,701	670,653
Revenue of generating stations	98,735,084	274,115	3,071,243	2,532,545
Revenue of hydraulic stations	89,911,413	20,394	1,502,006	1,901,555
Revenue of fuel stations	8,823,671	253,721	1,569,237	630,990
Average net revenue per H.P. of primary power	17.76	49.69	31.01	(x)
Average net revenue per H.P. in main & auxiliary plants	17.26	48.25	28.63	(x)
Average net revenue per K.V.A. of dynamo capacity	21.40	55.72	37.27	(x)
Average net revenue per K.V.A. in main & auxiliary plants	20.78	55.19	34.36	(x)
Average net revenue per kilowatt hour consumed (cents)	0.68	5.76	1.35	0.85
Average net revenue per domestic service customer	26.21	34.06	25.46	27.30
Average net revenue per commercial light customer	79.81	72.03	83.55	76.74
Average net revenue per small power customer	202.56	281.35	172.30	200.60
Average net revenue per large power customer	6,022.38	650.97	17,539.24	10,578.81
Average net revenue per kilowatt hour- Domestic and farm service (cents)	2.18	8.54	5.50	5.09
Average net revenue per kilowatt hour- Commercial light (cents)	2.61	7.53	5.54	3.77

(x) Affected by power purchased from another province.

TABLE 4 - REVENUE, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
$	$	$	$	$	$
44,519,739	x 48,877,280	6,207,956	4,236,991	x 4,483,415	9,892,781
7,795,948	16,262,707	2,743,877	1,775,697	1,728,351	3,357,638
5,491,794	7,302,940	1,313,469	1,078,180	1,094,633	2,030,080
2,203,010	3,506,699	387,975	585,971	629,092	377,819
27,831,161	19,778,214	1,540,123	519,748	769,207	3,712,562
1,197,826	2,026,720	222,512	277,395	262,132	414,682
43,331,547	10,206,153	3,026,889	1,532,188	2,252,367	9,289,920
84,457	1,191,560	125,014	145,560	48,428	2,367,541
43,247,090	9,014,593	2,901,875	1,386,628	2,203,939	6,922,379
43,234,276	9,007,281	2,842,872	...	1,621,240	6,792,656
12,814	7,312	59,003	1,386,628	582,699	129,723
1,188,192	38,671,127	3,181,067	2,704,803	2,231,048	602,861
182,845	11,368,263	602,722	466,540	815,845	332,135
1,005,347	27,302,864	2,578,345	2,238,263	1,415,203	270,726
748,662	27,252,386	2,376,202	...	26,507	215,447
256,685	50,478	202,143	2,238,263	1,388,696	55,279
267,302	12,559,823	727,736	612,100	864,273	2,699,676
44,252,437	36,317,457	5,480,220	3,624,891	3,619,142	7,193,105
43,982,938	36,259,667	5,219,074	...	1,647,747	7,008,103
269,499	57,790	261,146	3,624,891	1,971,395	185,002
14.53	(x)	14.10	31.29	(x)	17.57
14.40	(x)	13.12	31.29	(x)	16.14
16.93	(x)	17.50	36.86	(x)	22.68
16.78	(x)	16.17	36.86	(x)	20.68
0.46	1.12	0.58	3.23	2.45	0.80
20.24	27.18	37.62	40.07	30.15	26.30
74.77	82.81	85.69	78.14	67.09	90.61
190.26	249.82	149.62	210.10	162.01	132.66
28,112.28	8,099.19	664.71	6,496.85	2,797.12	2,104.63
3.25	1.77	1.00	4.89	5.83	3.07
3.20	2.11	1.38	6.36	4.81	2.93

TABLE 5 - EXPENSES, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
	$	$	$	$
Total Expenses	73,051,651	108,518	2,547,881	1,398,073
Per cent of total for Canada	100.00	0.15	3.49	1.91
Salaries and wages	21,431,877	56,741	843,804	421,689
Fuel	1,845,928	40,155	535,693	131,099
Taxes	5,894,619	11,075	246,152	83,384
Cost of power	43,879,227	547	922,232	761,901
Total for Commercial Stations	29,169,633	92,172	1,931,496	756,569
Salaries and wages	9,399,862	48,496	544,147	257,731
Fuel	1,046,326	32,054	519,387	76,531
Taxes	5,372,581	11,075	245,386	82,928
Cost of power	13,350,864	547	622,576	339,379
Non-generating stations	6,635,548	822	1,083,794	473,591
Generating stations	22,534,085	91,350	847,702	282,978
Hydraulic stations	20,427,685	8,403	111,592	77,550
Fuel stations	2,106,400	82,947	736,110	205,428
Total for Municipal Stations	43,882,018	16,346	616,385	641,504
Salaries and wages	12,032,015	8,245	299,657	163,958
Fuel	799,602	8,101	16,306	54,568
Taxes	522,038	...	766	456
Cost of power	30,528,363	...	299,656	422,522
Non-generating stations	27,807,648	...	359,231	365,269
Generating stations	16,074,370	16,346	257,154	276,235
Hydraulic stations	14,092,667	...	196,712	209,459
Fuel stations	1,981,703	16,346	60,442	66,776
Total Expenses for Non-generating Stations	34,443,196	822	1,443,025	838,860
Salaries and wages	6,948,799	275	377,394	197,621
Fuel	5,912	...	1,486	...
Taxes	725,035	...	164,378	34,276
Cost of power	26,763,450	547	899,767	606,963
Total Expenses for Generating Stations	38,608,455	107,696	1,104,856	559,213
Salaries and wages	14,483,078	56,466	466,410	224,068
Fuel	1,840,016	40,155	534,207	131,099
Taxes	5,169,584	11,075	81,774	49,108
Cost of power	17,115,777	...	22,465	154,938
Hydraulic stations	34,520,352	8,403	308,304	287,009
Fuel stations	4,088,103	99,293	796,552	272,204

TABLE 5 - EXPENSES, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
$	$	$	$	$	$
13,722,261	41,753,721	3,123,939	2,532,147	1,980,187	5,884,924
18.78	57.16	4.28	3.47	2.71	8.05
4,613,591	10,648,827	1,368,166	809,432	866,511	1,803,116
14,599	47,182	68,944	793,682	166,832	47,742
2,906,877	1,275,040	232,764	127,465	173,621	838,241
6,187,194	29,782,672	1,454,065	801,568	773,223	3,195,825
13,236,165	4,632,720	1,491,697	777,890	675,662	5,575,262
4,384,490	1,285,887	489,135	290,496	401,519	1,697,961
2,474	3,804	14,142	296,246	70,404	31,284
2,895,624	971,731	147,334	82,781	97,481	838,241
5,953,577	2,371,298	841,086	108,367	106,258	3,007,776
47,948	1,026,643	220,258	97,010	34,965	3,650,517
13,188,217	3,606,077	1,271,439	680,880	640,697	1,924,745
13,182,789	3,602,912	1,237,093	...	344,758	1,862,588
5,428	3,165	34,346	680,880	295,939	62,157
486,096	37,121,001	1,632,242	1,754,257	1,304,525	309,662
229,101	9,362,940	879,031	518,936	484,992	105,155
12,125	43,378	54,802	497,436	96,428	16,458
11,253	303,309	85,430	44,684	76,140	...
233,617	27,411,374	612,979	693,201	666,965	188,049
165,805	24,788,150	347,817	776,623	775,716	229,037
320,291	12,332,851	1,284,425	977,634	528,809	80,625
117,739	12,317,997	1,189,463	...	9,520	51,777
202,552	14,854	94,962	977,634	519,289	28,848
213,753	25,814,793	568,075	873,633	810,681	3,879,554
46,335	4,983,067	199,754	97,456	184,174	862,723
...	22	2,670	...	...	1,734
760	122,001	13,207	48,027	57,263	285,123
166,658	20,709,703	352,444	728,150	569,244	2,729,974
13,508,508	15,938,928	2,555,864	1,658,514	1,169,506	2,005,370
4,567,256	5,665,760	1,168,412	711,976	682,337	940,393
14,599	47,160	66,274	793,682	166,832	46,008
2,906,117	1,153,039	219,557	79,438	116,358	553,118
6,020,536	9,072,969	1,101,621	73,418	203,979	465,851
13,300,528	15,920,909	2,426,556	...	354,278	1,914,365
207,980	18,019	129,308	1,658,514	815,228	91,005

TABLE 6 - EMPLOYEES, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
Total Number of Persons Employed	14,717	51	710	430
Per cent of total for Canada	100.00	0.35	4.82	2.92
Officers, clerks, other salaried employees, etc.	6,509	18	250	202
Employees on wages	8,208	33	460	228
Total Employees in Commercial Stations	6,821	44	430	253
Officers, clerks, other salaried employees, etc.	2,827	15	168	106
Employees on wages	3,994	29	262	147
Non-generating	987	1	229	117
Generating	5,834	43	201	136
Hydraulic	5,211	8	81	44
Fuel	623	35	120	92
Total Employees in Municipal Stations	7,896	7	280	177
Officers, clerks, other salaried employees, etc.	3,682	3	82	96
Employees on wages	4,214	4	198	81
Non-generating	3,980	..	78	68
Generating	3,916	7	202	109
Hydraulic	3,299	..	175	103
Fuel	617	7	27	6
Total Employees in Non-generating Stations	4,967	1	307	185
Officers, clerks, other salaried employees, etc.	2,657	..	152	95
Employees on wages	2,310	1	155	90
Total Employees in Generating Stations	9,750	50	403	245
Officers, clerks, other salaried employees, etc.	3,852	18	98	107
Employees on wages	5,898	32	305	138
Hydraulic	8,510	8	256	147
Fuel	1,240	42	147	98

TABLE 6 - EMPLOYEES, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,274	6,780	1,020	556	622	1,274
22.25	46.07	6.93	3.78	4.23	8.65
1,315	3,060	537	253	290	584
1,959	3,720	483	303	332	690
3,089	943	354	234	297	1,177
1,237	345	162	128	151	515
1,852	598	192	106	146	662
20	33	11	15	8	553
3,069	910	343	219	289	624
3,066	907	323	...	183	599
3	3	20	219	106	25
185	5,837	666	322	325	97
78	2,715	375	125	139	69
107	3,122	291	197	186	28
32	3,433	142	54	130	43
153	2,404	524	268	195	54
93	2,396	482	...	8	42
60	8	42	268	187	12
52	3,466	153	69	138	596
40	1,789	96	40	75	370
12	1,677	57	29	63	226
3,222	3,314	867	487	484	678
1,275	1,271	441	213	215	214
1,947	2,043	426	274	269	464
3,159	3,303	805	...	191	641
63	11	62	487	293	37

TABLE 7 - NUMBER OF CUSTOMERS, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
Number of Customers	1,666,882	5,068	57,189	41,905
Per cent of total for Canada	100.00	0.31	3.43	2.51
Domestic service	1,371,806	3,970	47,124	34,959
Commercial light	244,283	971	8,066	5,756
Power (small)	40,641	106	1,796	1,010
Power (large)	8,160	30	119	143
Street lighting	1,992	11	84	37
Total Number of Customers of Commercial Stations	776,581	4,168	37,910	21,472
Domestic service	622,416	3,283	31,386	17,141
Commercial light	129,743	774	5,319	3,584
Power (small)	19,247	73	1,077	682
Power (large)	3,975	29	74	45
Street lighting	1,200	9	54	20
Non-generating	159,168	48	29,869	13,351
Generating	617,413	4,120	8,041	8,121
Hydraulic	569,389	737	5,142	261
Fuel	48,024	3,383	2,899	7,860
Total Number of Customers of Municipal Stations	890,301	920	19,279	20,433
Domestic service	749,390	687	15,738	17,818
Commercial light	114,540	197	2,747	2,172
Power (small)	21,394	33	719	328
Power (large)	4,185	1	45	98
Street lighting	792	2	30	17
Non-generating	664,390	...	13,639	13,013
Generating	225,911	920	5,640	7,420
Hydraulic	156,740	...	2,772	6,047
Fuel	69,171	920	2,868	1,373
Total Number of Customers of Non-generating Stations	823,558	48	43,508	26,364
Domestic service	688,037	34	36,150	21,828
Commercial light	113,169	6	5,873	3,863
Power (small)	18,268	7	1,393	559
Power (large)	3,500	...	53	89
Street lighting	584	1	39	25
Total Number of Customers of Generating Stations	843,324	5,040	13,681	15,541
Hydraulic Stations	726,129	737	7,914	6,308
Domestic service	596,705	635	6,386	5,806
Commercial light	106,522	99	1,213	400
Power (small)	17,554	..	238	68
Power (large)	4,306	..	43	27
Street lighting	1,042	3	34	7
Fuel Stations	117,195	4,303	5,767	9,233
Domestic service	87,064	3,301	4,588	7,325
Commercial light	24,592	866	980	1,493
Power (small)	4,819	99	165	383
Power (large)	354	30	23	27
Street lighting	366	7	11	5
Average number of domestic service customers per 100 of population	12.84	4.46	9.03	8.32

TABLE 7 - NUMBER OF CUSTOMERS, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
471,874	703,550	93,276	61,266	77,993	154,741
28.31	42.21	5.59	3.68	4.68	9.28
385,175	598,347	72,935	44,319	57,330	127,647
73,451	88,192	15,329	13,798	16,315	22,405
11,579	14,037	2,593	2,789	3,883	2,848
990	2,442	2,317	80	275	1,764
679	532	102	280	190	77
439,427	59,258	28,024	22,775	25,261	138,286
356,159	48,975	20,087	15,722	15,742	113,921
70,886	8,630	6,608	6,090	7,465	20,387
10,795	1,318	481	779	1,818	2,224
938	275	827	31	63	1,693
649	60	21	153	173	61
2,579	3,639	5,666	2,721	1,155	100,140
436,848	55,619	22,358	20,054	24,106	38,146
436,652	55,407	21,279	...	14,155	35,756
196	212	1,079	20,054	9,951	2,390
32,447	644,292	65,252	38,491	52,732	16,455
29,016	549,372	52,848	28,597	41,588	13,726
2,565	79,562	8,721	7,708	8,850	2,018
784	12,719	2,112	2,010	2,065	624
52	2,167	1,490	49	212	71
30	472	81	127	17	16
10,711	563,994	12,232	14,138	24,902	11,761
21,736	80,298	53,020	24,353	27,830	4,694
14,537	79,527	49,481	...	755	3,621
7,199	771	3,539	24,353	27,075	1,073
13,290	567,633	17,898	16,859	26,057	111,901
11,581	476,520	14,575	12,418	21,724	93,207
1,401	77,214	2,598	3,459	3,344	15,411
258	11,951	567	898	933	1,702
12	1,640	86	30	42	1,548
38	308	72	54	14	33
458,584	135,917	75,378	44,407	51,936	42,840
451,189	134,934	70,760	...	14,910	39,377
366,888	120,984	55,031	...	9,107	32,858
71,602	10,858	11,718	...	4,407	6,225
11,091	2,070	1,774	...	1,272	1,041
970	800	2,227	...	27	212
638	222	10	...	97	31
7,395	983	4,618	44,407	37,026	3,463
6,706	843	3,329	31,901	26,499	2,572
448	120	1,013	10,339	8,564	769
230	16	252	1,891	1,678	105
8	2	4	50	206	4
3	2	20	226	79	13
12.97	16.98	10.10	4.66	7.57	17.83

TABLE 8 - POLE LINE MILEAGE, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
Pole Line Mileage	56,570	207	2,426	1,728
Per cent of total for Canada	100.00	0.37	4.29	3.05
For transmission	17,504	...	611	472
For distribution	39,066	207	1,815	1,256
Total Pole Line Mileage in Commercial Stations	25,129	189	1,409	619
Non-generating	4,037	7	637	245
Generating	21,092	182	772	374
Hydraulic	18,673	59	578	153
Fuel	2,419	123	194	221
Total Pole Line Mileage in Municipal Stations	31,441	18	1,017	1,109
Non-generating	8,908	...	350	224
Generating	22,533	18	667	885
Hydraulic	19,976	...	616	687
Fuel	2,557	18	51	198
Total Pole Line Mileage in Non-generating Stations	12,945	7	987	469
Total Pole Line Mileage in Generating Stations	43,625	200	1,439	1,259
Hydraulic	38,649	59	1,194	840
Fuel	4,976	141	245	419

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1933

Total Primary Power	H.P.	193,569	165	11,943	6,125
Per cent of total for Canada		100.00	0.09	6.17	3.16
Steam reciprocating engines	No.	46	1	9	8
Total capacity	H.P.	19,984	75	3,988	1,950
Steam turbines	No.	46	..	3	4
Total capacity	H.P.	164,571	..	7,370	3,600
Gas and oil engines	No.	49	2	5	3
Total capacity	H.P.	9,014	90	585	575
Total Secondary Power	K.V.A.	164,732	48	10,127	4,453
Commercial Stations					
Total Primary Power	H.P.	135,590	165	11,100	5,225
Steam reciprocating engines	No.	30	1	7	6
Total capacity	H.P.	12,855	75	3,565	1,575
Steam turbines	No.	37	..	3	4
Total capacity	H.P.	117,381	..	7,370	3,600
Gas and oil engines	No.	28	2	1	1
Total capacity	H.P.	5,354	90	165	50
Total Secondary Power	K.V.A.	116,433	48	9,466	3,856
Municipal Stations					
Total Primary Power	H.P.	57,979	...	843	900
Steam reciprocating engines	No.	16	...	2	2
Total capacity	H.P.	7,129	...	423	375
Steam turbines	No.	9	...	...	...
Total capacity	H.P.	47,190	...	...	...
Gas and oil engines	No.	21	...	4	2
Total capacity	H.P.	3,660	...	420	525
Total Secondary Power	K.V.A.	48,299	...	661	597

TABLE 8 - POLE LINE MILEAGE, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
11,122	25,846	3,279	3,544	3,769	4,649
19.66	45.69	5.80	6.26	6.66	8.22
4,880	3,836	1,793	2,375	2,241	1,295
6,242	22,010	1,486	1,169	1,528	[illegible]
10,710	2,307	1,180	1,583	3,005	4,127
214	180	189	648	32	1,885
10,496	2,127	991	935	2,973	2,242
10,485	2,120	919	...	2,224	2,135
11	7	72	935	749	107
412	23,539	2,099	1,961	764	522
129	5,971	1,314	179	372	369
283	17,568	785	1,782	392	153
252	17,545	728	...	16	132
31	23	57	1,782	376	21
343	6,151	1,503	827	404	2,254
10,779	19,695	1,776	2,717	3,365	2,395
10,737	19,665	1,647	...	2,240	2,267
42	30	129	2,717	1,125	128

TABLE 9 - AUXILIARY PLANT EQUIPMENT, 1933

27,823	42,371	32,921	...	22,070	50,151
14.37	21.89	17.01	...	11.40	25.91
3	9	3	...	10	3
2,250	3,100	3,206	...	4,440	975
6	6	7	...	5	15
25,500	36,500	28,840	...	16,250	46,511
3	8	8	...	7	13
73	2,771	875	...	1,380	2,665
24,478	35,148	29,250	...	19,168	42,060
27,823	9,271	12,000	...	21,130	48,876
3	3	...	...	9	1
2,250	950	...	...	3,990	450
6	2	3	...	5	14
25,500	6,300	12,000	...	16,250	46,361
3	5	...	...	4	12
73	2,021	...	...	890	2,065
24,478	7,928	11,250	...	18,390	41,017
...	33,100	20,921	...	940	1,275
...	6	3	...	1	2
...	2,150	3,206	...	450	525
...	4	4	...	...	1
...	30,200	16,840	...	...	150
...	3	8	...	3	1
...	750	875	...	490	600
...	27,220	18,000	...	778	1,043

TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
Total Primary Power ..... H.P.	6,809,575	5,692	155,901	136,970
Per cent of total for Canada	100.00	0.08	2.29	2.01
Water wheels and turbines .....No.	814	9	55	16
Total capacity ..... H.P.	6,305,997	464	81,616	105,485
Steam reciprocating engines .....No.	103	1	10	13
Total capacity ..... H.P.	32,359	75	4,063	5,015
Steam turbines .....No.	112	3	18	9
Total capacity ..... H.P.	435,094	4,173	69,038	25,300
Gas and oil engines .....No.	383	7	17	9
Total capacity ..... H.P.	36,125	980	1,184	1,170
Total Dynamo Capacity ..... K.V.A.	5,656,417	4,977	129,914	115,229
Per cent of total for Canada	100.00	0.09	2.30	2.04
Dynamos, A.C. ..... No.	1,177	16	94	41
Total capacity ..... K.V.A.	5,649,254	4,969	129,524	114,101
Dynamos, D.C. ..... No.	211	1	6	7
Total capacity .....K.W.	7,163	8	390	1,128
Commercial Stations				
Total Primary Power .....H.P.	4,842,686	4,802	85,495	114,835
Water wheels and turbines ..... No.	553	9	19	10
Total capacity .....H.P.	4,563,973	464	15,106	92,650
Steam reciprocating engines ..... No.	61	1	8	11
Total capacity .....H.P.	19,145	75	3,640	4,640
Steam turbines ..... No.	68	3	15	7
Total capacity .....H.P.	238,129	4,173	66,380	17,300
Gas and oil engines ..... No.	286	2	7	5
Total capacity .....H.P.	21,439	90	369	245
Total Dynamo Capacity ..... K.V.A.	4,072,908	4,212	71,692	97,779
Dynamos, A.C. ..... No.	758	11	43	26
Total capacity ..... K.V.A.	4,067,737	4,204	71,302	96,651
Dynamos, D.C. ..... No.	190	1	6	7
Total capacity ..... K.W.	5,171	8	390	1,128
Municipal Stations				
Total Primary Power .....H.P.	1,966,889	890	70,406	22,135
Water wheels and turbines ..... No.	261	...	36	6
Total capacity .....H.P.	1,742,024	...	66,510	12,835
Steam reciprocating engines ..... No.	42	...	2	2
Total capacity .....H.P.	13,214	...	423	375
Steam turbines ..... No.	44	...	3	2
Total capacity .....H.P.	196,965	...	2,658	8,000
Gas and oil engines ..... No.	97	5	10	4
Total capacity .....H.P.	14,686	890	815	925
Total Dynamo Capacity .....K.V.A.	1,583,509	765	58,222	17,450
Dynamos, A.C. ..... No.	419	5	51	15
Total capacity .....K.V.A.	1,581,517	765	58,222	17,450
Dynamos, D.C. ..... No.	21	...	...	...
Total capacity .....K.W.	1,992	...	...	...

TABLE 10 - TOTAL EQUIPMENT INCLUDING AUXILIARY PLANT EQUIPMENT, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,091,258	2,046,895	473,216	135,398	151,139	613,106
45.40	30.06	6.95	1.99	2.22	9.00
264	337	40	...	18	75
3,048,405	2,003,426	436,925	...	69,520	560,156
3	19	11	5	29	12
2,250	3,668	4,341	2,468	8,689	1,790
11	6	8	23	18	16
40,370	36,500	29,240	115,162	68,300	47,011
5	11	38	186	73	37
233	3,301	2,710	17,768	4,630	4,149
2,653,444	1,651,526	383,996	114,947	124,110	478,274
46.91	29.20	6.79	2.03	2.19	8.45
281	354	82	104	82	123
2,652,913	1,650,867	383,726	113,750	121,426	477,978
4	8	12	106	50	17
531	659	270	1,197	2,684	296
3,047,758	518,681	320,481	49,884	99,489	601,261
241	171	21	...	16	66
3,019,770	509,237	307,800	...	68,560	550,386
3	7	1	2	22	6
2,250	1,123	30	1,118	5,394	875
7	2	3	9	7	15
25,625	6,300	12,000	37,940	21,550	46,861
4	5	16	146	67	34
113	2,021	651	10,826	3,985	3,139
2,616,550	439,082	253,857	40,866	79,068	469,802
252	174	32	59	57	104
2,616,019	438,897	253,807	39,817	77,534	469,506
4	6	6	95	48	17
531	185	50	1,049	1,534	296
43,500	1,528,214	152,735	85,514	51,650	11,845
23	166	19	...	2	9
28,635	1,494,189	129,125	...	960	9,770
...	12	10	3	7	6
...	2,545	4,311	1,350	3,295	915
4	4	5	14	11	1
14,745	30,200	17,240	77,222	46,750	150
1	6	22	40	6	3
120	1,280	2,059	6,942	645	1,010
36,894	1,212,444	130,139	74,081	45,042	8,472
29	180	50	45	25	19
36,894	1,211,970	129,919	73,933	43,892	8,472
...	2	6	11	2	...
...	474	220	148	1,150	...

TABLE 11 - MAIN PLANT EQUIPMENT, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
Total Primary Power ....H.P.	6,616,006	5,527	143,958	130,845
Per cent of total for Canada	100.00	0.08	2.18	1.98
Water wheels and turbines ....No.	814	9	55	16
Total capacity ....H.P.	6,305,997	464	81,616	105,485
Steam reciprocating engines ....No.	57	...	1	5
Total capacity ....H.P.	12,375	...	75	3,065
Steam turbines ....No.	66	3	15	5
Total capacity ....H.P.	270,523	4,173	61,668	21,700
Gas and oil engines ....No.	334	5	12	6
Total capacity ....H.P.	27,111	890	599	595
Total Dynamo Capacity ....K.V.A.	5,491,685	4,929	119,787	110,776
Per cent of total for Canada	100.00	0.09	2.18	2.02
Dynamos, A.C. ....No.	1,052	15	78	26
Total capacity ....K.V.A.	5,486,618	4,921	119,697	109,881
Dynamos, D.C. ....No.	204	1	5	6
Total capacity ....K.W.	5,067	8	90	895
Commercial Stations				
Total Primary Power ....H.P.	4,707,096	4,637	74,395	109,610
Per cent of total for Canada	100.00	0.10	1.58	2.33
Water wheels and turbines ....No.	553	9	19	10
Total capacity ....H.P.	4,563,973	464	15,106	92,650
Steam reciprocating engines ....No.	31	...	1	5
Total capacity ....H.P.	6,290	...	75	3,065
Steam turbines ....No.	31	3	12	3
Total capacity ....H.P.	120,748	4,173	59,010	13,700
Gas and oil engines ....No.	258	...	6	4
Total capacity ....H.P.	16,085	...	204	195
Total Dynamo Capacity ....K.V.A.	3,956,475	4,164	62,226	93,923
Per cent of total for Canada	100.00	0.11	1.57	2.37
Dynamos, A.C. .... No.	676	10	33	16
Total capacity ....K.V.A.	3,952,950	4,156	62,136	93,028
Dynamos, D.C. .... No.	184	1	5	6
Total capacity ....K.W.	3,525	8	90	895
Municipal Stations				
Total Primary Power ....H.P.	1,908,910	890	69,563	21,235
Per cent of total for Canada	100.00	0.05	3.64	1.11
Water wheels and turbines ....No.	261	...	36	6
Total capacity ....H.P.	1,742,024	...	66,510	12,835
Steam reciprocating engines ....No.	26	...	...	...
Total capacity ....H.P.	6,085	...	...	...
Steam turbines ....No.	35	...	3	2
Total capacity ....H.P.	149,775	...	2,658	8,000
Gas and oil engines ....No.	76	5	6	2
Total capacity .... H.P.	11,026	890	395	400
Total Dynamo Capacity ....K.V.A.	1,535,210	765	57,561	16,853
Per cent of total for Canada	100.00	0.05	3.75	1.10
Dynamos, A.C. .... No.	376	5	45	10
Total capacity ....K.V.A.	1,533,668	765	57,561	16,853
Dynamos, D.C. .... No.	20	...	...	...
Total capacity .... K.W.	1,542	...	...	...
Hydraulic Stations				
Total Dynamo Capacity ....K.V.A.	5,229,372	414	68,017	91,163
Per cent of total for Canada	100.00	0.01	1.30	1.74
Dynamos, A.C. .... No.	797	7	55	15
Total capacity ....K.V.A.	5,228,563	406	68,017	91,038
Dynamos, D.C. .... No.	11	1	...	1
Total capacity ....K.W.	809	8	...	125
Fuel Stations				
Total Dynamo Capacity ....K.V.A.	262,313	4,515	51,770	19,613
Per cent of total for Canada	100.00	1.72	19.74	7.48
Dynamos, A.C. .... No.	255	8	23	11
Total capacity ....K.V.A.	258,055	4,515	51,680	18,843
Dynamos, D.C. .... No.	193	...	5	5
Total capacity ....K.W.	4,258	...	90	770

TABLE 11 - MAIN PLANT EQUIPMENT, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
3,063,435	2,004,524	x 440,295	135,398	129,069	562,955
46.30	30.30	6.65	2.05	1.95	8.51
264	337	40	...	18	75
3,048,405	2,003,425	436,025	...	69,520	560,156
...	10	8	5	19	9
...	568	1,135	2,468	4,249	815
5	...	1	23	13	1
14,870	...	400	115,162	52,050	500
2	3	30	186	66	24
160	530	1,835	17,768	3,250	1,484
2,628,966	1,616,378	354,746	114,947	104,942	436,214
47.87	29.43	6.46	2.09	1.91	7.95
271	336	65	104	61	96
2,628,435	1,616,169	354,476	113,750	103,358	435,931
4	7	12	106	48	15
531	209	270	1,197	1,584	283
3,019,935	509,410	308,451	49,884	78,359	552,385
64.16	10.82	6.55	1.06	1.66	11.74
241	171	21	...	16	66
3,019,770	509,237	307,300	...	68,560	550,386
...	4	1	2	13	5
...	173	30	1,118	1,404	425
1	...	...	9	2	1
125	...	...	37,940	5,300	500
1	...	16	146	63	22
40	...	651	10,826	3,095	1,074
2,592,072	431,154	242,607	40,866	60,678	428,785
65.52	10.90	6.13	1.03	1.53	10.84
242	165	29	59	41	81
2,591,541	430,969	242,557	39,817	60,244	428,502
4	6	6	95	46	15
531	185	50	1,049	434	283
43,500	1,495,114	131,814	85,514	50,710	10,570
2.28	78.32	6.91	4.48	2.66	0.55
23	166	19	...	2	9
28,635	1,494,189	129,125	...	960	9,770
...	6	7	3	6	4
...	395	1,105	1,350	2,845	390
4	...	1	14	11	...
14,745	...	400	77,222	46,750	...
1	3	14	40	3	2
120	530	1,184	6,942	155	410
36,894	1,185,224	112,139	74,081	44,264	7,429
2.40	77.20	7.31	4.83	2.88	.48
29	171	36	45	20	15
36,894	1,185,200	111,919	73,933	43,114	7,429
...	1	6	11	2	...
...	24	220	148	1,150	...
2,614,971	1,615,549	351,912	...	53,200	434,146
50.01	30.89	6.73	...	1.02	8.30
264	327	40	...	14	75
2,614,440	1,615,474	351,912	...	53,200	434,076
4	3	...	...	...	2
531	75	...	...	...	70
13,995	829	2,834	114,947	51,742	2,068
5.33	0.32	1.08	43.82	19.72	0.79
7	9	25	104	47	21
13,995	695	2,564	113,750	50,158	1,855
...	4	12	106	48	13
...	134	270	1,197	1,584	213

x Capacity of one hydraulic station in Saskatchewan included in Manitoba.

TABLE 12 - MAIN PLANT EQUIPMENT CLASSIFIED, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Primary Power .....H.P.	6,616,006	5,527	143,958	130,845	3,063,435
Water wheels and turbines ..... No.	614	9	55	16	264
Total H.P.	6,305,997	464	81,616	105,485	3,048,405
Under 500 H.P. ..... No.	158	9	24	3	24
Total H.P.	30,483	464	5,416	535	3,856
500 - 2,000 H.P. .....No.	216	...	17	2	73
Total H.P.	243,839	...	19,860	2,050	81,619
2,000 - 5,000 H.P. .....No.	125	...	10	6	35
Total H.P.	371,525	...	33,040	17,500	100,950
5,000 - 10,000 H.P. .....No.	106	...	4	1	36
Total H.P.	696,450	...	23,300	5,000	249,450
10,000 - 15,000 H.P. .....No.	76	...	...	...	28
Total H.P.	883,300	...	...	...	302,100
15,000 - 25,000 H.P. .....No.	56	...	...	4	17
Total H.P.	1,030,500	...	...	80,000	352,500
25,000 and up .....No.	77	...	...	...	51
Total H.P.	3,049,900	...	...	...	1,957,900
Steam reciprocating engines .....No.	57	...	1	5	...
Total H.P.	12,375	...	75	3,065	...
Under 500 H.P. .....No.	49	...	1	2	...
Total H.P.	5,315	...	75	165	...
500 H.P. and up .....No.	8	...	...	3	...
Total H.P.	7,060	...	...	2,900	...
Steam turbines .....No.	66	3	15	5	5
Total H.P.	270,523	4,173	61,668	21,700	14,870
Under 500 H.P. .....No.	4	...	1	...	1
Total H.P.	1,327	...	402	...	125
500 - 2,000 H.P. .....No.	17	2	4	1	1
Total H.P.	18,337	2,173	4,846	700	1,34[illegible]
2,000 - 5,000 H.P. .....No.	27	1	5	3	1
Total H.P.	80,961	2,000	14,720	11,000	2,681
5,000 - 10,000 H.P. and up .....No.	18	...	5	1	2
Total H.P.	165,298	...	41,700	10,000	10,724
Gas and oil engines .....No.	334	5	12	6	2
Total H.P.	27,111	890	599	595	160
Secondary Power					
Dynamos, A.C. and D.C. .....No.	1,256	16	83	32	275
Total K.V.A.	5,491,685	4,929	119,787	110,776	2,628,966
Dynamos, A.C. .....No.	1,052	15	78	26	271
Total K.V.A.	5,486,618	4,921	119,697	109,881	2,628,435
Under 50 K.V.A. .....No.	70	4	6	...	5
Total K.V.A.	2,138	133	226	...	175
50 - 200 K.V.A. .....No.	159	7	15	5	12
Total K.V.A.	17,534	738	1,458	656	1.239
200 - 500 K.V.A. .....No.	125	1	14	1	20
Total K.V.A.	38,788	300	4,413	375	6,897
500 - 1,000 K.V.A. .....No.	139	1	9	4	14
Total K.V.A.	103,227	625	6,705	2,875	34,040
1,000 - 5,000 K.V.A. .....No.	265	2	28	11	66
Total K.V.A.	609,450	3,125	67,220	28,475	147,420
5,000 - 10,000 K.V.A. .....No.	111	...	8	1	25
Total K.V.A.	763,367	...	39,675	7,500	156,900
10,000 - 15,000 K.V.A. .....No.	68	...	...	...	31
Total K.V.A.	734,165	...	...	...	318,000
15,000 - 25,000 K.V.A. .....No.	54	...	...	4	20
Total K.V.A.	1,019,500	...	...	70,000	403,250
25,000 and up .....No.	61	...	...	...	48
Total K.V.A.	2,198,514	...	...	...	1,560,514
Dynamos, D.C. .....No.	204	1	5	6	4
Total K.W.	5,067	8	90	895	531
Under 50 K.W. .....No.	192	1	4	3	3
Total K.W.	2,242	8	40	45	31
50 - 200 K.W. .....No.	8	...	1	2	...
Total K.W.	525	...	50	200	...
200 - 500 K.W. .....No.	1	...	...	...	...
Total K.W.	400	...	...	...	...
500 and up .....No.	3	...	...	1	1
Total K.W.	1,900	...	...	650	500

TABLE 12 - MAIN PLANT EQUIPMENT CLASSIFIED. 1933

Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	Commercial	Municipal
2,004,524	440,295	135,398	129,069	562,955	4,707,096	1,908,910
337	40	...	18	75	553	261
2,003,426	436,925	...	69,520	560,156	4,563,973	1,742,024
68	1	...	10	19	106	52
14,051	125	...	1,920	3,686	17,994	12,489
115	...	...	...	9	127	89
129,040	...	...	...	11,270	140,154	103,685
56	4	...	2	12	90	35
163,035	12,800	...	8,000	36,200	271,475	100,050
29	21	...	4	11	74	32
186,100	130,000	...	23,600	79,000	500,350	196,100
35	5	...	...	8	57	19
417,700	66,000	...	...	97,500	647,100	236,200
18	3	...	2	12	38	18
289,500	60,000	...	36,000	212,500	741,000	289,500
16	6	...	...	4	61	16
804,000	168,000	...	...	120,000	2,245,900	804,000
10	8	5	19	9	31	26
568	1,135	2,468	4,249	815	6,290	6,085
10	8	3	16	9	27	22
568	1,135	618	1,939	815	2,290	3,025
...	...	2	3	...	4	4
...	...	1,850	2,310	...	4,000	3,060
...	1	23	13	1	31	35
...	400	115,162	52,050	500	120,748	149,775
...	1	1	...	...	1	3
...	400	400	...	...	125	1,202
...	...	6	2	1	9	8
...	...	6,678	2,000	500	9,471	8,766
...	...	9	8	...	13	14
...	...	26,210	24,350	...	36,186	44,775
...	...	7	3	...	8	10
...	...	81,874	25,700	...	74,966	95,032
3	30	186	66	24	258	76
530	1,835	17,768	3,250	1,484	16,085	11,026
343	77	210	109	111	860	396
1,616,378	354,746	114,947	104,942	436,214	3,956,475	1,535,210
336	65	104	61	96	676	376
1,616,169	354,476	113,750	103,358	435,931	3,952,950	1,533,668
8	10	18	9	10	46	24
223	265	626	227	257	1,399	733
32	11	37	19	21	99	60
3,888	1,054	4,377	1,843	2,281	10,382	7,152
41	5	22	11	10	62	63
12,501	1,557	6,781	3,075	2,830	18,490	20,239
65	...	7	3	6	85	54
48,140	...	4,466	2,088	4,288	62,932	40,295
99	14	13	14	18	173	92
201,785	46,350	28,750	42,375	43,950	401,913	207,537
48	11	4	2	14	66	45
354,592	70,750	25,000	11,250	97,700	451,005	312,362
23	5	2	1	6	51	17
247,040	56,000	25,000	12,500	75,625	555,565	178,600
8	9	1	2	10	45	9
154,000	178,500	18,750	30,000	165,000	846,750	172,750
12	...	...	...	1	49	12
594,000	...	...	...	44,000	1,604,514	594,000
7	12	106	48	15	184	20
209	270	1,197	1,584	283	3,525	1,542
4	10	106	46	15	176	16
59	145	1,197	434	283	1,975	257
3	2	...	...	...	6	2
150	125	...	...	...	400	125
...	...	...	1	...	...	1
...	...	...	400	...	...	400
...	...	...	1	...	2	1
...	...	...	750	...	1,150	750

TABLE 13 - ELECTRIC ENERGY GENERATED, 1933

	Canada	Prince Edward Island	Nova Scotia	New Brunswick
ALL STATIONS				
Total kilowatt hours generated .....(thousands)	17,338,990	4,765	330,436	378,687
Per cent of total for Canada	100.00	0.03	1.91	2.18
Kilowatt hours generated by non-generating stations .....(thousands)	311	...	56	...
Kilowatt hours generated by generating stations .....(thousands)	17,338,679	4,765	330,380	378,687
K.V.A. capacity of generating stations	5,633,107	4,977	120,125	110,776
Ratio of output to maximum capacity .....p.c.	35.9	10.9	31.4	39.0
Average kilowatt hours per K.V.A.	3,078	957	2,750	3,418
GENERATING STATIONS				
Commercial Stations				
Total				
Kilowatt hours generated .....(thousands)	13,665,919	4,062	134,169	340,056
K.V.A. capacity	4,058,330	4,212	62,439	93,923
Ratio of output to maximum capacity ..... p.c.	39.0	11.0	24.5	41.3
Average kilowatt hours per K.V.A.	3,367	964	2,149	3,621
Hydraulic Stations				
Kilowatt hours generated .....(thousands)	13,487,752	348	27,802	322,116
K.V.A. capacity	3,940,711	462	13,049	80,900
Ratio of output to maximum capacity ..... p.c.	39.6	8.6	24.3	45.5
Average kilowatt hours per K.V.A.	3,423	753	2,131	3,982
Fuel Stations				
Kilowatt hours generated .....(thousands)	178,167	3,714	106,367	17,940
K.V.A. capacity	117,619	3,750	49,390	13,023
Ratio of output to maximum capacity .....p.c.	17.3	11.3	24.6	15.7
Average kilowatt hours per K.V.A.	1,515	990	2,154	1,378
Municipal Stations				
Total				
Kilowatt hours generated .....(thousands)	3,672,760	703	196,211	38,631
K.V.A. capacity	1,574,777	765	57,686	16,853
Ratio of output to maximum capacity ..... p.c.	27.8	10.5	38.8	26.2
Average kilowatt hours per K.V.A.	2,332	919	3,401	2,292
Hydraulic Stations				
Kilowatt hours generated .....(thousands)	3,519,994	...	194,833	25,996
K.V.A. capacity	1,430,083	...	55,306	10,263
Ratio of output to maximum capacity ..... p.c.	29.4	...	40.2	28.9
Average kilowatt hours per K.V.A.	2,461	...	3,523	2,533
Fuel Stations				
Kilowatt hours generated .....(thousands)	152,766	703	1,378	12,635
K.V.A. capacity	144,694	765	2,380	6,590
Ratio of output to maximum capacity .....p.c.	12.5	10.5	6.6	21.9
Average kilowatt hours per K.V.A.	1,056	919	579	1,918
Total Hydraulic Stations				
Kilowatt hours generated .....(thousands)	17,007,746	348	222,635	348,112
K.V.A. capacity	5,370,794	462	68,355	91,163
Ratio of output to maximum capacity ..... p.c.	37.0	8.6	37.2	43.6
Average kilowatt hours per K.V.A.	3,167	753	3,257	3,819
Kilowatt hours generated by water power.....(thousands)	17,006,069	319	222,513	348,112
Kilowatt hours generated by auxiliary plants (thousands)	1,677	29	122	...
Total Fuel Stations				
Kilowatt hours generated .....(thousands)	330,933	4,417	107,745	30,575
K.V.A. capacity	262,313	4,515	51,770	19,613
Ratio of output to maximum capacity ..... p.c.	14.7	11.2	23.8	17.8
Average kilowatt hours per K.V.A.	1,262	978	2,081	1,559
CONSUMPTION OF ELECTRIC ENERGY (Thousands of Kilowatt Hours)				
Total kilowatt hours generated	17,338,990	4,765	330,436	378,687
Kilowatt hours imported from the United States	608	...	...	63
Kilowatt hours imported from other provinces	...	...	...	5,190
Kilowatt hours exported to the United States	983,561	...	...	11,661
Kilowatt hours exported to other provinces	...	...	...	...
Kilowatt hours for consumption in Canada	16,356,037	4,765	330,436	372,279
Domestic service	1,650,395	1,584	21,800	18,740
Commercial light	746,555	929	12,165	11,727
Small power	389,761	478	10,341	5,508
Large power	9,774,213	718	252,705	305,276
Street lighting	184,765	251	4,340	2,888
Free service (other than street lighting)	16,650	...	88	256
Losses	3,593,698	805	28,997	27,884

TABLE 13 - ELECTRIC ENERGY GENERATED, 1933

Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon
9,611,084	4,381,094	1,077,210	131,164	182,963	1,241,587
55.43	25.27	6.21	.76	1.05	7.16
...	2	151	...	...	102
9,611,084	4,381,092	1,077,059	131,164	182,963	1,241,485
2,653,444	1,648,167	379,746	114,947	123,332	477,593
42.3	31.6	32.4	13.0	16.9	29.7
3,622	2,658	2,836	1,141	1,483	2,599
9,568,620	1,535,671	676,053	36,477	142,850	1,227,961
2,616,550	437,763	253,857	40,866	79,068	469,652
42.7	40.0	30.4	10.2	20.6	29.9
3,657	3,508	2,663	893	1,807	2,615
9,568,507	1,535,597	675,426	...	132,040	1,225,916
2,616,410	437,638	253,350	...	70,740	468,162
42.7	40.1	30.4	...	21.3	29.9
3,657	3,509	2,666	...	1,867	2,619
113	74	627	36,477	10,810	2,045
140	125	507	40,866	8,328	1,490
9.2	6.8	14.1	10.2	14.8	15.7
807	592	1,237	893	1,298	1,372
42,464	2,845,421	401,006	94,687	40,213	13,524
36,894	1,210,404	125,889	74,081	44,20[illegible]	7,941
15.2	28.3	36.4	14.6	10.3	19.4
1,151	2,351	3,185	1,278	906	1,703
41,945	2,844,760	398,293	...	1,440	12,727
23,039	1,209,700	123,562	...	850	7,363
20.8	28.3	36.8	...	19.3	19.7
1,821	2,352	3,223	...	1,694	1,729
519	661	2,713	94,687	38,673	797
13,855	704	2,327	74,081	43,414	578
0.7	10.7	13.3	14.6	10.2	15.7
38	939	1,166	1,278	891	1,379
9,610,452	4,380,357	1,073,719	...	133,480	1,238,643
2,639,449	1,647,338	376,912	...	71,590	475,525
42.5	31.6	32.5	...	21.3	29.7
3,641	2,659	2,849	...	2,865	2,605
9,610,452	4,380,124	1,073,634	...	133,169	1,237,746
...	233	85	...	311	897
632	735	3,340	131,164	49,483	2,842
13,995	829	2,834	114,947	51,742	2,068
0.8	10.1	13.5	13.0	10.9	15.7
45	887	1,179	1,141	956	1,374
9,611,084	4,381,094	1,077,210	131,164	182,963	1,241,587
79	...	147	...	319	...
...	2,153,622	...	...	1,510	...
383	971,069	...	...	...	448
2,158,812	...	...	...	...	1,510
7,451,968	5,563,647	1,077,357	131,164	184,792	1,239,629
840,110	917,849	275,048	36,317	29,668	109,479
171,418	346,061	95,245	16,948	22,748	69,314
81,988	185,540	55,385	17,188	25,202	8,131
4,896,147	2,920,423	479,084	34,530	63,205	822,125
36,472	91,013	17,628	7,241	7,506	17,426
9,252	773	672	61	1,360	4,188
2,016,581	1,102,188	154,295	18,879	35,103	208,966

TABLE 14 - FUEL, 1933

Provinces	Bituminous Coal			
	Canadian		Imported	
	Quantity Tons	Value $	Quantity Tons	Value $
Canada	268,357	1,100,951	12,460	50,885
Prince Edward Island	5,595	30,760	...	...
Nova Scotia	93,409	346,747	...	...
New Brunswick	27,616	110,840	2,491	7,109
Quebec	...	...	1,178	7,834
Ontario	60	280	x 8,791	35,942
Manitoba	...	...	...	...
Saskatchewan	135,272	590,989	...	...
Alberta	2,150	5,488	...	...
British Columbia and Yukon	4,255	15,847	...	...

	Fuel Oil	
	Quantity Gal.	Value $
Canada	2,703,714	290,789
Prince Edward Island	75,585	8,519
Nova Scotia	100,721	11,921
New Brunswick	121,732	12,975
Quebec	36,156	3,116
Ontario	127,131	9,460
Manitoba	227,507	30,802
Saskatchewan	1,566,090	161,860
Alberta	174,678	26,657
British Columbia and Yukon	271,114	25,479

x - Includes 1,527 tons of coke and also 8,700 tons for operation of a synchronous condenser on a hydro electric system.

TABLE 14 - FUEL, 1933

Lignite Coal Canadian		Gasolene		Kerosene	
Quantity Tons	Value $	Quantity Gal.	Value $	Quantity Gal.	Value $
108,369	156,741	47,573	13,090	43,179	9,344
...	...	60	19	1,890	257
...	...	50	13	40	9
...	...	....	...	...	...
...	...	355	78	...	...
...	...	...	...	...	...
3,567	13,665	2,856	849	9,102	1,901
20,823	29,044	22,601	6,416	22,604	5,050
83,979	114,032	20,651	5,465	9,533	2,123
...	...	1,000	250	10	4

Wood		Natural Gas		Other Fuel	Total
Quantity Cords	Value $	Quantity 1000 cu. ft.	Value $	Value $	Value $
9,696	32,931	312,465	9,123	182,074	1,845,928
150	600	...	...	...	40,155
...	...	...	...	177,003	535,693
86	175	...	...	...	131,099
...	...	...	...	3,571	14,599
...	...	...	...	1,500	47,182
5,602	21,727	...	...	...	68,944
213	323	...	...	...	793,682
2,692	3,944	312,465	9,123	...	166,832
953	6,162	...	...	...	47,742