

In addition to providing the means for oral communication, the carrier current channels convey the signals which isolate instantaneously from the system faulty power-line or equipment, indicate water levels and power loads and control the power frequency throughout the entire system so that electric clocks may keep accurate time and industrial machinery operate at constant speed. Radio is used for emergency communication with major operating centres throughout the southern Ontario system.

**Additional Proposed Developments.**—Realizing that frequency standardization would mean an even greater all-round use of electricity than had hitherto been experienced, the Commission, in 1950, was planning another major development at Niagara to be undertaken as soon as the necessary ratification of the project, which required the sanction of both the Canadian and United States Governments, could be obtained. This, it was estimated would add 800,000 h.p. to the resources of southern Ontario. Other developments were in prospect in the northwestern section of the Province.

## Section 2.—The Central Electric Station Industry

An article dealing with government control of power in wartime is given at pp. 336-337 of the 1945 Canada Year Book.

**Summary of Energy Generated by Type of Station, 1947 and 1948.**—Central electric stations are companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. Stations are divided into two classes according to ownership, viz., (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or Provincial Governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel, and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 88 p.c. of the total capacity of hydraulic installations in all industries in Canada: the generators driven by this hydraulic equipment generate 98 p.c. of the total output of all central electric stations.

### 5.—Electric Energy Generated, by Type of Station, 1939-46, and by Provinces, 1947 and 1948

Year and Province	Generated by—		Total	Year and Province	Generated by—		Total
	Water Power	Thermal Engines			Water Power	Thermal Engines	
	'000 kwh.	'000 kwh.	'000 kwh.		'000 kwh.	'000 kwh.	'000 kwh.
1939.....	27,836,691	501,339	28,338,030	1943.....	39,660,312	819,281	40,479,593
1940.....	29,537,459	571,824	30,109,283	1944.....	39,553,352	1,045,427	40,598,779
1941.....	32,628,930	688,733	33,317,663	1945.....	39,131,020	999,034	40,130,054
1942.....	36,582,953	772,226	37,355,179	1946.....	40,692,395	1,044,592	41,736,987
<b>1947</b>				<b>1948</b>			
P.E.I.....	556	19,826	20,382	P.E.I.....	320	21,612	21,932
N.S.....	349,403	267,708	617,111	N.S.....	366,373	311,288	677,661
N.B.....	420,510	171,948	592,458	N.R.....	397,233	194,403	591,636
Que.....	25,926,927	3,244	25,930,171	Que.....	24,560,684	5,998	24,566,682
Ont.....	11,182,693	9,000	11,191,693	Ont.....	11,054,394	41,214	11,095,608
Man.....	2,028,541	3,213	2,031,754	Man.....	2,052,586	3,123	2,055,709
Sask.....	463,059	299,823	762,882	Sask.....	471,672	333,322	804,994
Alta.....	380,569	260,762	641,331	Alta.....	429,758	294,740	724,498
B.C. <sup>1</sup> .....	1,520,909	116,108	1,637,017	B.C. <sup>1</sup> .....	1,737,075	113,886	1,850,961
<b>Totals, 1947.</b>	<b>42,273,167</b>	<b>1,151,632</b>	<b>43,424,799</b>	<b>Totals, 1948.</b>	<b>41,070,095</b>	<b>1,319,586</b>	<b>42,389,681</b>

<sup>1</sup> Includes Yukon and Northwest Territories.