

Section 3.—Total Development of Electric Power from All Available Sources

In Section 1 of this Chapter total water-power resources are given with the proportion that, so far, has been developed. Table 3 of that Section analyses the hydraulic turbine installation by the proportions in central electric stations, in pulp and paper mills, and in other industries. This is useful material, but it does not take into account electric power developed in central electric stations or in other industries from sources other than hydraulic.

Section 2 covers the central electric station industry including stations under the public ownership of provincial and municipal governments and those under private ownership. Neither of these Sections, however, gives a complete presentation of the total electric power developed in Canada. All the hydraulic energy developed is not converted to electric power: there are a number of water wheels and water turbines used for direct drive that are not geared to electric generators. On the other hand, certain central electric stations in the Atlantic Provinces, Ontario and the Prairie Provinces generate electricity from steam or internal combustion engines. It is the purpose of this Section to show the total electric power generated from all available sources. Most of the power comes, of course, from central electric stations, the figures having been given in Table 4 of Section 2, p. 563. The total kilowatt hours of electric power generated by central electric stations is divided into that generated from water power and that generated from thermal engines of all kinds.

As shown in Table 25, total electric power generated by central electric stations in 1951 was 54,851,844,000 kwh. For a complete presentation, the power generated by manufacturing industries for their own use and the power generated by the primary mining industry for use in its own operations must be added. There are a few other sources of electric energy included, such as electric railways which produced 13,016,772 kwh. in 1951. This production has been taken into the annual total shown in Table 25. There are numerous small lighting and power plants on farms, rural homes, summer resorts, stores, etc., where electricity from central electric stations is not available and for these no data are available.

25.—Total Power Generated by Central Electric Stations, Manufacturing and Mining Industries, 1942-51

NOTE.—Figures for the years 1927-41 will be found in the 1948-49 Year Book, p. 516.

Year	Central Electric Stations		Manufacturing Industries		Mining Industries		Total ¹
	'000 kwh.	p. c.	'000 kwh.	p. c.	'000 kwh.	p. c.	
1942.....	37,355,179	91.1	3,345,444	8.2	296,734	0.7	41,007,482
1943.....	40,479,593	92.1	3,211,610	7.3	248,848	0.6	43,951,190
1944.....	40,598,779	93.2	2,752,125	6.3	210,554	0.5	43,571,276
1945.....	40,130,054	93.0	2,362,260	5.5	201,765	0.5	42,720,374
1946.....	41,736,987	93.4	2,714,261	6.1	199,950	0.4	44,662,916
1947.....	43,424,799	92.1	3,467,535	7.4	269,412	0.6	47,174,384
1948.....	42,389,681	89.7	4,590,677	9.7	270,522	0.6	47,262,060
1949.....	44,418,573	87.8	5,898,390	11.7	263,835	0.5	50,592,990
1950.....	48,493,718	88.1	6,266,051	11.4	264,232	0.5	55,036,765
1951.....	54,851,844	89.3	6,369,094	10.4	212,832	0.3	61,446,787

¹ Includes power generated by electric railways for their own use.