

the world in the development of water power and, on the commonly accepted basis of one horse-power being the equivalent of the work of ten men, furnishes energy equal to that of more than 100,000,000 workers.

From hydro-electric developments ranging in size from a few hundred to more than 1,000,000 horse-power, networks of transmission lines carry power not only to most urban centres in Canada and to industries in isolated locations but also in increasing degree to rural areas in many parts of the Dominion.

Low-cost hydro-electric energy is fundamental to the economic mining, milling and refining of base and precious metals, and enables these metals to be fabricated into a multitude of manufactured products. It supplies the enormous power needs of pulp, paper and other wood-products industries, and of the lesser but important needs of food processing, textile, and many other industries throughout Canada. It has contributed largely to a high standard of living in Canada by providing low-cost domestic service to homes and farms, a service being rapidly extended in the post-war period.

Canada's great hydro-electric undertakings, built to meet the domestic and industrial requirements of the country in peacetime, have been of incalculable value to the Dominion's participation in two world wars. This is particularly true of the War of 1939-45 in which mechanization played such an important part. During the six years of that War more than 2,000,000 h.p. was added to Canada's water-power installation, virtually all of which was utilized for war production; great quantities of power also were diverted from peacetime to wartime use. About one-third of all electric energy generated in Canada during the war years was devoted entirely to war purposes, enabling this country to produce materials and munitions of war on a scale entirely disproportionate to its population.

During 1946, the power industry entered energetically into the task of readjustment and return to normal peacetime services. Contrary to some previous expectations, the fall in the demand for power in 1946, the first full post-war year, did not generally materialize. Of the new generating capacity added during war years, part has been absorbed by the normal growth in demand for power which was restricted during wartime and part now provides the normal emergency reserves conducive to good service. In certain instances there has been a surplus of power but the channelling of this capacity into such activities as steam generation has been proceeding in orderly manner. In other districts, new hydro-electric developments have been undertaken or are being planned to provide for the growing needs of farms, communities and industries.

Subsection 1.—Water-Power Resources and Their Development

Table 1 presents a summary of the water-power resources of Canada according to the Dominion Water and Power Bureau's records as of Dec. 31, 1946. In the case of developed power the figures for 1945 are listed for comparative purposes.