

## VII.—WATER POWERS.

1.—Water Powers of Canada.<sup>1</sup>

Prior to the world war, the price of fuels was so low that ample motive power could be secured through their agency at such reasonable cost that the development of water power only took place where the natural facilities greatly favoured it or where coal costs were relatively high. With the advent of war, coal costs soared and supplies became uncertain; at the same time, power requirements became vastly greater and stimulated the development of water power. The return of peace has not produced any marked amelioration in the coal situation, while the gradual revival of industrial activity is steadily increasing the demand for power which the end of the war had considerably reduced.

At the present time, water power development is active wherever conditions are favourable, and there can be little doubt that this activity will be increased with the improvement of financial and industrial conditions.

The United States Geological Survey, in 1921, issued an atlas illustrating the water power resources of the world, which it places at 439,000,000 horsepower, 43.3 p.c. of which are in Africa and 14.1 p.c. in North America.

In Table 1, which is based upon the above mentioned atlas and revised in accordance with additions authentically recorded since its publication, are listed the more important water power countries, together with their population and developed water power. It is interesting to note that, with the exception of Norway and Switzerland, Canada has the greatest per capita development, and next to the United States, the greatest actual development.

1.—Developed Water Power of Leading Countries, 1922.

Country.	Population (in thousands).	Developed Water Power.	
		H.P. (in thousands).	Per 1,000 Population.
Canada.....	8,788	2,974	338
France.....	39,300	2,100	54
Germany.....	59,860	1,000	17
Italy.....	38,840	1,650	43
Japan.....	55,960	1,500	27
Norway.....	2,650	1,654	624
Sweden.....	5,900	1,560	264
Switzerland.....	3,880	1,531	395
United States.....	105,700	9,540	90

With this brief reference to the water powers of the world, we may proceed to a more particular consideration and analysis of those of the Dominion. It has already been shown that Canada is richly endowed with water power resources and is in the forefront as regards their utilization. In fact, practically every large industrial centre throughout the Dominion is now served with hydro-electric energy and has within easy transmission distance ample reserves for the future. Over 90 p.c. of the prime motive power of the central electric stations of Canada is hydro power. The main spring of industrial progress in the central provinces, which have no indigenous coal supplies, is water power. Table 2 shows the distribution of available and developed power in Canada.

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