

transmission and distribution equipment is \$297,296,494, of which \$231,480,483 is reported for commercial plants and \$65,816,011 for municipal plants. The balance of the capital reported covers cash on hand, current assets, supplies and all other items. The average capital invested for the Dominion per primary horse-power is \$193. For commercial stations this figure is \$196, and for municipal stations, \$183.

The gross revenue received from power sales totals \$44,536,848, of which \$29,135,399 is secured by commercial stations and \$15,401,449 by publicly-owned stations. Of the total revenue secured, \$18,403,639 is derived from the sale of power for lighting purposes and \$26,133,209 from sales for all other purposes.

HYDRO POWER IN CENTRAL STATION INDUSTRY.

A review of the proportion of water-produced energy in the central electric station industry in Canada is exceptionally interesting. It is remarkable to note that out of a total installed capacity of 1,844,571 horse-power in central electric stations, 1,652,661 horse-power or 89.6 per cent is derived from water. Yukon develops 97.4 per cent of its primary central electric station energy from water. Ontario develops 95.7 per cent from water, indicating markedly the commercial adaptability of water-power for central station work even where in competition with convenient and reasonably cheap coal supplies. Manitoba develops 95.2 per cent from water, practically entirely from the Winnipeg River power reach. Quebec develops 94.9 per cent of its central station energy from water. British Columbia develops 89.8 per cent from water, although first-class coal supplies are available in the province. Alberta develops 43.2 per cent from water, although an abundant coal supply is available. The water-power developed in this province is practically wholly derived from the Bow River system. New Brunswick develops 38.8 per cent from water-power, Nova Scotia 19.2 per cent. The percentage of water-power used in central electric stations in Nova Scotia is low, although the province is exceptionally endowed with available water-power resources. An abundant coal supply indicates the reason for this condition. The city of Halifax is served from a steam-driven plant, the largest central electric station in the province. The present tendency in the province is, however, towards the increased use of hydro-power. In Prince Edward Island only 13.9 per cent of the central station power is derived from water. The topography and area of the Island province explains the lack of water-power resources. In Saskatchewan no water-power is developed. Here the topography of the province is solely responsible; the entire settled portion is located in prairie country which is not naturally endowed with attractive water-power sites.

In spite, however, of the low figures in certain provinces, the percentage of primary power in central stations produced from water is extraordinarily high—practically 90 per cent—and is indicative of two outstanding features, viz., the extent and availability of the water-power resources of the Dominion and the remarkable degree to which their adaptability for central electric station work has been appreciated in principle and realized in practice.

In water-driven plants the central station capacity for the Dominion averages 6,381 horse-power with 2,670 horse-power average units. Commercial water-driven plants average 7,112 horse-power, compared with 4,518 horse-power in municipal plants, the units averaging 2,901 horse-power and 2,024 horse-power, respectively.

The capital invested in hydro-electric central stations and systems totals \$310,104,658, averaging \$188 per installed horse-power for the Dominion. Commercial stations average \$189 per horse-power and municipal stations \$180 per horse-power. This cost includes all capital invested in construction and equipment of hydraulic works, power station, transmission and distribution systems; real estate, cash on hand, current assets, supplies, and all other items.