

have taken their polls is £11,067,115. The population of the districts concerned is 847,936, so that the loans authorized amount to £13.1 per head of population, as compared with £12.5 last year. The unimproved valuation of the districts is £257,341,532, the loans authorized amounting to 4.3 per cent. of the unimproved rateable value of the lands pledged as security for the loans. The voting at the polls totalled 46,036 to 7,146—i.e., a majority of 87 per cent.

Table U shows the capital expenditure incurred by each Board up to the end of the financial year 1926–27, the revenue and expenditure, and the amount of rates struck and collected.

The total capital outlay by the thirty-five Boards which have started construction is £9,394,136, and a small proportion of this is on works not yet in service. The gross revenue from the sale of electricity by the thirty-four Boards which had commenced supply was £1,312,212, of which 39.2 per cent. was received by the Auckland Board. The general result is a loss over the whole business of the Power Boards of £10,216. Such losses in the early stages do not indicate any want of security in the business as a whole, but are inherent in the commencement of any concern depending to such an extent on a large initial capital outlay to earn a revenue which takes time to develop.

During last year six of the Boards struck a general rate, which was collected in five cases, and seven of the Boards struck special rates for the security for loans, which were collected in only one case.

Several of the Boards have been passing through a critical stage owing to the high cost and high interest rates ruling in 1921 when they started construction work, and to the fact that they have undertaken the construction of many lines without requiring the guarantees from consumers authorized by clause 7 (d) of the 1922 regulations, and since amplified in the 1927 regulations. But costs and rates of interest are now substantially lower, and other Boards are profiting by such experiences, and much better results will be attained by the Power Boards generally in future as the result of the experience of these earlier districts.

LOCAL ELECTRIC-SUPPLY SYSTEMS.

Including the Government plants, there are now (31st March, 1927) forty-eight public electric-power stations in the Dominion, as compared with fifty-one last year. One new hydro station (Tariki) came into operation, and three gas stations (Devonport, Waiuku, and Pukekohe) were shut down when bulk supply from hydro became available.

The total installed capacity has increased during the year by 11,898 kw., or 9.4 per cent. (from 127,017 kw. to 138,915 kw.), while the sum of the maximum loads has increased by 18,421 kw., or 21 per cent. (from 87,861 kw. to 106,282 kw.).

The proportion of installed plant is now as follows:—

	Stations.	Kilowatts.	Proportion per Cent.
Water-power	35	103,288	74.53
Steam-power (excluding hydro stand-by plants at Wellington (10,000), Invercargill (2,450), Waihi (2,500)	5	32,324	23.20
Gas-power	5	1,978	1.42
Oil-power	3	1,325	0.88
	48	138,915	100.00

The number of consumers supplied has increased from 192,392 to 228,345, an increase of 35,953, or 18.6 per cent., for the year.

The total population included in the various areas of electric-power supply is 1,239,535, or 90 per cent. of the total population of the Dominion, so that the ideal of a supply being available to every home in the Dominion is well on the way to realization.

The maximum demand per head of population in the areas supplied is 0.085 kw., slightly over one-half of the allocation of 0.15 kw., or 0.2 h.p. per head of population, which is the basis of the design of the Government schemes. The units sold per head of population supplied were 310, as compared with 241 last year.

The total length of distributing-line is 14,975 route-miles, as compared with 12,454 last year, an increase of 2,521 miles, or 20.3 per cent. The number of consumers per route-mile is 15.2, as compared with 15.4 last year, the reduction being due to the extra mileage of new lines erected during the year to which the full number of services is not yet connected, and to the increased proportion of country lines.

The maximum power-demand per route-mile of line is now 7.1 kw., the sales 25,700 units, and the revenue £193. The units and revenue are substantially better than last year, which were 21,600 units and £184 respectively, while there was no increase in the corresponding maximum demand.

The revenue per kilowatt of maximum load of all stations was £27.3, as compared with £26.1 last year. The water-power stations show a revenue of £28.3 per kilowatt, steam stations of £24 per kilowatt, oil stations of £33 per kilowatt, and gas stations of £36.8 per kilowatt. These are valuable figures for use in forecasting the revenue from systems of various descriptions. The water-power systems include the greatest proportion of large consumers, and the gas-engine stations the greatest proportion of small consumers.

Out of the 101 distributing authorities, sixty-nine showed a profit for the year amounting to £297,542, and thirty-two showed a loss amounting to £173,407. The general result is a net profit for the whole Dominion of £124,135 after paying working-costs (£1,353,591) and capital charges (£1,426,319) at the rate of 7.55 per cent. on the total capital outlay of £18,936,136. This shows a net profit of 0.66 per cent., as compared with 1.0 per cent. last year. The business on the whole is thus a thoroughly sound and remunerative one, as well as supplying a public necessity to 90 per cent. of the population of the Dominion.