

The maximum power-demand per route-mile is now 8·76 kw., the sales 33,000 units, and the revenue £210. The units are less than last year (35,000), and there is a slight decrease in revenue, as against £220 last year, and there is a decrease over the corresponding maximum demand of 10·9 kw. last year. These decreases can be directly attributed to the general economic conditions which have been a feature of the past year, and in a smaller degree to restricted outputs from Lake Coleridge and Waikato systems.

The revenue per kilowatt of maximum load of all stations was £24, as compared with £24 last year. The water-power stations show a revenue of £24·1 per kilowatt, steam stations of £23·3 per kilowatt, oil stations of £51·2 per kilowatt, and gas stations of £44·9 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 ninety-nine distributing authorities, eighty-three showed a profit for the year amounting to £755,415, and sixteen showed a loss amounting to £65,539. The general result is a net profit for the whole Dominion of £689,876, after paying working-costs (£2,094,736) and capital (interest and sinking fund) charges (£1,582,497) at the rate of 5·45 per cent. on the total capital outlay of £29,185,268. This shows a net profit of 2·38 per cent., as compared with 2·76 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 94 per cent. of the population of the Dominion.

The following table summarizes the results of the year's operations in connection with electric supply throughout the Dominion, and Table XX shows in condensed form the financial statistics for each supply authority.

	Water.	Steam.	Gas.	Oil.	Total.
Number of stations	33	3	2	3	41
Installed capacity, main plant only (kilowatts) ..	179,878	43,787	112	186	223,963
Average capacity (kilowatts)	5,450	14,595	56	62	5,463
Number of consumers	248,501	51,305	497	506	300,809
Connected load (kilowatts)	960,137	194,040	311	623	1,155,111
Maximum load (kilowatts)	150,477	30,564	88	99	181,228
Units generated	639,938,641	119,602,430*	104,950	181,035	759,827,056
Annual load-factor (per cent.)	54·8	54·39	13·61	20·87	48·00
Units sold	563,006,359	120,605,790	76,210	137,958	683,826,317
Total capital outlay in operation, including distribution systems	£25,496,190	£3,634,743	£25,879	£28,456	£29,185,268
Total capital outlay per kilowatt installed, including distribution systems	£142	£83	£230	£152	£113
Total annual working-costs	£1,699,894	£387,825	£3,681	£3,336	£2,094,736
Total annual working-costs per unit sold	0·725d.	0·77d.	11·6d.	5·8d.	0·735d.
Total annual working-costs per kilowatt (maximum demand)	£11·25	£12·65	£42·0	£33·6	£11·55
Total annual capital charges	£1,361,750	£217,157	£1,708	£1,882	£1,582,497
Total annual capital charges, per unit sold	0·58d.	0·435d.	5·35d.	3·26d.	0·558d.
Total annual capital charges per kilowatt (maximum demand)	£9·1	£7·1	£19·4	£19·0	£8·7
Total annual capital charges as percentage of capital outlay (per cent.)	5·34	5·99	6·6	6·6	5·45
Total annual costs	£3,061,644	£604,982	£5,389	£5,218	£3,677,233
Total annual costs per unit sold	1·305d.	1·205d.	16·95d.	9·06d.	1·293d.
Total annual costs per kilowatt (maximum demand)	£20·35	£19·75	£61·4	£52·6	£20·25
Total annual revenue, not including rates	£3,642,358	£716,744	£3,938	£5,084	£4,368,124
Total annual revenue per unit sold	1·55d.	1·43d.	12·4d.	8·85d.	1·54d.
Total annual revenue per kilowatt (maximum demand)	£24·1	£23·3	£44·9	£51·2	£24·0
Net profit	£580,714	£111,762	—£1,451	—£134	£689,876
Ratio of working-costs to revenue (per cent.)	46·5	54·0	93·5	65·8	47·9

* Also purchased 26,457,701 units.

BROKEN WIRES AND POLES.

During the year ending 31st March, 1931, there were 760 instances (1,019 broken wires) reported by electric-supply authorities, with 93,121 miles of conductor erected. The corresponding figures for the previous year were 1,811 broken wires, and 90,710 miles of conductor in use.

Falling trees were the principal cause of the breaks, and accounted for 25·4 per cent. of the total, as against 40·6 per cent. for 1930.

As regards broken poles, 450 instances were reported for the year, of which 352 were New Zealand blue-gum. For 1930 the total number of broken poles reported was 561, and it is still evident that electric-supply authorities who experimented with New Zealand blue-gum and nondescript Australian "hardwoods" are now being called upon to make early replacements after approximately five to seven years of pole-life.

GROWTH OF LOAD.

The total connected load at end of the year under review was 1,155,111 kw., as against a total of 886,905 kw. for 1930, an increase of 268,206 kw., or 30·3 per cent.

Statistics pertaining to the increasing use of electric ranges, electric water-heaters, and milking-machines, have been collected and scheduled for some years past, and from the following table it will be seen that during the period 1925 to 1931 the growth has been phenomenal.