

leaving the tunnel, power-house extension, and Addington substation extension to enable the increased supply to be given. Plans and specifications for these are ready, and will be issued as soon as the Christchurch City is prepared to enter into a contract to take the additional output necessary to justify the works.

The line to Ashburton and Timaru has been completed, and arrangements have been made to supply power to the Power Boards in both these places at the same rates as to all the other reticulating authorities except Christchurch City.

It is recognized that as the load develops with the extended plant it will be possible in a few years to reduce the standard charges: estimates indicate that it will be necessary to maintain them until 1928, but an offer has been made to the Christchurch City of a ten-years contract to commence at once at 10 per cent. below the standard rates.

The load on the power-house has increased rapidly during the year owing to the removal of restrictions. On the 31st March it had reached 9,390 kw., as compared with 7,600 kw. at the beginning of the year, and has since increased to 10,500 kw., of which Christchurch City is taking one-half.

The estimated cost of the extensions to the Lake Coleridge plant to increase its capacity by 15,000 kw. is £371,000. The Christchurch City Council have obtained a valuable report on the possibility of developing the Waimakariri River at Otarama Gorge, which is estimated to cost over £900,000 for a plant of the same capacity. It is claimed that this installation would have a greater capacity for future extensions than the Lake Coleridge plant; but, as 15,000 kw. will be sufficient for many years to come, this cannot be considered an advantage which would justify an additional expenditure of over £500,000. As a result of this difference in capital outlay, the necessary additional power can be given from Lake Coleridge earlier and at a cheaper rate than from the Waimakariri. Moreover, if the Waimakariri scheme were developed the present power from Lake Coleridge would have to be sold mainly in North and South Canterbury. This will involve a large outlay in transmission-lines, which will be necessary in any case, but the cost would have to be borne by a smaller output, and the load would take three or four years to develop.

Moreover, this smaller load would have to carry the burden of capital charges for a large outlay which has been incurred especially for the supply to Christchurch, and which is practically useless for the supply of the remainder of the demand. As a result it would involve a substantially higher cost of power to consumers outside the city. At the offer now made to the city for a ten-years contract the actual cost of power from Lake Coleridge will be cheaper than the cost of Waimakariri power as estimated by the city for nine years out of the ten, and after the tenth year, of course, the question of the further reduction of rates which can be made on the renewal of the contract will come up for consideration.

HORAHORA ELECTRIC-POWER SUPPLY.

Service has been maintained satisfactorily during the year, and the reticulation has been rapidly extended by the Power Boards into the farming districts. The number of electric milking-machines connected to the mains of the four Power Boards in the district has increased during the year to 880. The financial results of the year's operations are as follow:—

	£	£
Capital outlay	..	395,022
Revenue	..	41,818
Working-expenses	9,721	
Interest	19,208	
Depreciation	6,620	
Total annual costs	—	35,549
Profit	..	£6,269

This has enabled the accumulated deficiency of £5,882 to be paid off, and £386 is available towards the accumulated sinking-fund deficiency of £8,459.

The load at Horahora reached 6,900 kw. during the year, which is 10 per cent. overload on the present installed capacity of 6,300 kw.