

The main work during the year was the extension of the plant capacity from 8,000 h.p. to 12,000 h.p. by the addition of a new 4,000 h.p. unit with necessary switch-gear and pipe-line. This was completed and put into service at the end of the financial year, and its influence on the financial returns will not be realized until next year. A further 4,000 h.p. unit is in hand, which will bring the plant up to the full capacity of the existing tunnel and power-house building. This will enable the output to be increased to 16,000 h.p., and will render available a limited supply of 1,000 h.p. reserved for Ashburton, Timaru, and South Canterbury. The transmission-line for this purpose is well in hand. Supply was given during the year to Banks Peninsula and Springs-Ellesmere Electric-power Boards. In order to obtain the necessary additional supply of water for these and future extensions the Harper River is being diverted into the lake, and the permanent works for this purpose have now been completed.

In order to provide for further extensions up to the full requirements of the district—viz., 36,000 h.p.—the survey has been carried out for a second tunnel, 11 ft. in diameter, and plans are in hand for the extension of the power-house by the addition of two 10,000 h.p. units, with further provision for a third unit of the same capacity when required.

WAIKATO ELECTRIC-POWER SUPPLY.

The Horahora power plant has now completed its second year of service since it was taken over from the Waihi Gold-mining Company, and the financial results are as follows :—

Capital outlay	..	..	..	..	£	353,807
Working-expenses	..	..	..	..		7,986
Interest ..	..	..	..	..		13,187
Depreciation	..	..	..	..		4,512
Total costs	..	..	..	..		<u>£25,685</u>

The revenue for the year was £28,207, showing a net profit of £2,522, as compared with a loss for the previous year of £6,282. This result is largely due to the increased revenue received from the mines and dairy factories. In addition supply has been given to Hamilton Borough and to four Electric-power Boards—viz., Thames Valley, Cambridge, Central, and Te Awamutu. For this purpose the transmission-lines have been extended by sixty-seven miles. The maximum load at power-house during the year was 5,800 kw. out of the plant capacity of 6,300 kw., but this has since been reduced owing to a temporary reduction in the mining load. But, again, as in the case of Lake Coleridge, no sinking fund has been provided, and this, had it been paid, would have converted this profit into a loss of £59.

The operation of the power-house and transmission-lines during the year has been carried on satisfactorily.

In order to provide for the normal increase in the demand, contracts have been placed for two additional generating-units of 2,000 kw. each, which will bring the full power-house capacity up to 10,300 kw., or 14,000 h.p., which it is anticipated will be fully loaded up before the Arapuni works are completed. The headworks and power-house extensions to accommodate these additional units are now in hand.

MANGAHAO ELECTRIC-POWER SUPPLY.

In addition to the two plants in actual operation, work is in hand at Mangahao, Arapuni, and Waikaremoana.

At Mangahao substantial progress has been made with the excavation and lining of the two main tunnels, the by-pass tunnel for the Mangahao dam, the excavation for the Mangahao and Arapeti dams, the foundations for the power-house, and with the transmission-lines to Wellington. For the supply of the necessary materials thirty-five contracts, amounting in all to £277,000, have been placed.