

The chief event during the year has been the completion of construction and putting into operation of the extensions to headworks and generating-station, which has increased the capacity of the plant from 16,000 to 36,000 horse-power. The Department had contracted under heavy penalty to have these works in operation by the end of July, 1926, and was successful in carrying out its obligations to time, and in providing the extra power that was urgently needed in the area.

The water-supply has been well maintained and there has been no serious trouble with the plant during the year. The maximum load to the end of the financial year was 16,880 kw., but by the end of June 1927 this had grown to 21,020 kw.

It is pleasing to record that the service over the various transmission-lines indicates a reduction in the number of interruptions recorded. There was only one interruption to the Christchurch supply that could in any way be considered serious, and that lasted for a period of twenty minutes only.

During the year the second main transmission-line to Timaru was completed, and extended to Oamaru, where Coleridge power was first given to the Waitaki Power Board on Christmas Eve, 1926. Much improved service was given to South Canterbury during the year. There were, however, two interruptions, each of about three and a quarter hours' duration, in the early part of the year, before the new line was fully tested out. Since then, however, the few interruptions that have occurred have been of short duration only.

HORAHORA.

The financial results of operation of this plant have again been very satisfactory, and may be summarized as under:—

				£
Capital investment	..	..	..	844,948
Revenue..	..	..	..	108,748
Operating expenses	..	..	..	28,713
Balance	..	..	..	<u>£80,034</u>

The balance has been used in paying interest and a 2-per-cent. depreciation, and has left a profit of £25,564 on the year's operation. This has been used in paying £8,448 to the Sinking Fund and £17,116 to Reserve. This scheme now has a Depreciation Fund of £63,782, a Sinking Fund of £38,515, and a Reserve Fund of £47,669. The capital investment shown above includes £268,107 on lines and substations forming part of the Arapuni scheme, but at present operated from Horahora.

There has been very little trouble with the plant during the year, even though the power-station has been operated for very long periods on heavy overload. To meet the increasing loads on the system a contract was negotiated with the Tauranga Borough Council for additional power from their generating plants, and the Department now has the right to draw 2,200 kw. from this source at certain periods of the day. Similarly, the old water-power plant of the Tourist Department at Okere, Rotorua, has been run for several hours every day. The Department has also purchased the steam generating plant belonging to the Grand Junction Mining Co., which has been run as required on peak loads. The second unit of 1,600 kw. in this plant, which was out of commission when purchased, is being reconditioned, and will be added to the plant capacity available at an early date. Consequent on the delays that have taken place on the Arapuni contract it has become evident that the existing plants were going to be very seriously overloaded during the winter of 1928, and thereafter until the Arapuni station is completed. To meet this anticipated shortage the Department has ordered for urgent delivery three Diesel-engine-driven generating-sets, each of 1,500 kw. capacity. These will be installed at Penrose, and preliminary work is being carried on, making every endeavour to have at least one of the sets in operation by June, 1928.