

The second transmission-line to Timaru was completed and put into service during the year, and a main transmission-line erected and put into operation between Timaru and Oamaru. A new substation was erected to give supply to the Waitaki Electric-power Board, and substantial alterations and additions made to substations at Hororata, Ashburton, and Timaru to provide for the new line and for increasing loads.

HORAHORA.

The concrete weir and regulating-gates were completed early in the year. A considerable amount of work has been done on transmission-lines and substations which will ultimately become part of the Arapuni development, but which meanwhile are being supplied from Horahora. An 110,000-volt line between Horahora and Hamilton was completed, and is being operated at 50,000 volts meanwhile. A double-circuit 50,000-volt line from Penrose to Takapuna, with substations at Henderson and at Takapuna, was completed and put into service just before Christmas. A large amount of work has been done on the double-circuit line on steel towers between Arapuni and Penrose (Auckland) in anticipation of completion of the Arapuni Power-station. The 50,000-volt line between Bombay and Waikino has been under construction during the year, and was completed and put into operation shortly after the end of the period under review. The main substation at Penrose has been very considerably enlarged, and additional switch-gear and transformers are being installed to provide for the supply of Arapuni power to Auckland. Alterations and additions have been made to the substations at Bombay and Hamilton to provide for connection to main 110,000-volt Arapuni-Penrose lines. In addition to the Henderson and Takapuna substations, additional 50,000-volt to 11,000-volt substations have been completed at Hangatiki giving supply to the Waitomo Power Board, and at Mamaku giving supply to the Tourist Department.

MANGAHAO.

The expenditure during the year has been £220,555. The major portion of this has been on the upper dam on the Mangahao, which is now approaching completion. In addition the line to Taradale (Hawke's Bay) has been completed, and the substation there completed and put into operation.

ARAPUNI.

The expenditure for the year on this scheme has amounted to £663,012, of which £388,858 has been paid to the contractors for the headworks and plant, and the balance, £274,154, and various transmission-lines and substations described under the heading of Horahora and carried by the Department's own staff. Progress on the main contract has not been altogether satisfactory. Although fair progress has been made with the main dam, the contractor has got very far behind on the power-house section. It is anticipated that it will be possible to divert part of the water into the race very early in the New Year, but owing to delays at the power-house end it is now evident that the contractors will be very considerably behind the contract time in completing the work.

WAIKAREMOANA.

Construction work on the first stage of the main development of this scheme has been proceeded with energetically, and good progress has been made. The first of the machinery for the power-station has just begun to arrive in New Zealand, and the major portion of it should be delivered early in 1928. Satisfactory progress is being made with the various sections of headworks, buildings, &c., and I have every reason to believe that the forecast expressed in my last year's Statement, that the scheme would be in operation by the end of June, 1929, will be realized. The surveys of the main transmission-lines to Napier and Gisborne have been completed, and the material is now arriving on the ground for erection during the present summer.