

## GENERAL.

*Addington Substation.*

The work of erecting the new ironclad switch-gear was carried out, and one of the three sections was put into service in October, 1926. Erection of frames and chambers was completed in April, 1927, and it is hoped that the whole equipment will be put into service by September, 1927. The new switchboard to control the above switch-gear was completed and the original board moved back into line by March, 1927.

The north bank of 5,000 kv.a. transformers was completed and put into service on the 9th June, 1926, bringing the capacity of the substation up to 15,000 kv.a. In anticipation of the arrival of the new 12,000 kv.a. bank, the middle bank of transformers was removed and changed to outdoor type. These were then installed at Ashburton in December, 1926. Owing to late delivery on the part of the contractors for supply of the 12,000 kv.a. bank of transformers these did not arrive until the 28th March, 1927. They were dried out in the substation, and put into service in June. Until these were put into service the existing banks, totalling 10,000 kv.a., were subjected to heavy overloads, but carried them successfully.

In order to cope with the heavy lifts at the Addington Substation the electrically operated 20-ton crane was transferred from the power-house. Certain structural alterations were necessary to adapt the crane for its new location, and it was nearly completed by the close of the year. The erection was actually completed in April, and facilitated the erection of the 12,000 kv.a. bank of transformers.

The 6,000 kv.a. synchronous condenser was put into service in April, 1926, and has been running on full load during the day load throughout the year.

The North Canterbury Electric-power Board was formed and duly gazetted on the 3rd March, 1927. This Board will control supply of electricity over an area extending from the Waimakariri River to the Waipara River, and will be supplied by the Department by a new 33 kv. line from Addington to Southbrook. This line will be built during the present summer. Extensions to the area of the South Canterbury Power Board comprised the counties of MacKenzie and Levels.

*Rainfall.*

The rainfall at the power-house for the year was 34·83 in., or over 9 in. less than for the preceding year. The highest monthly rainfall occurred in November, when 3·09 in. were recorded.

## WAIKATO ELECTRIC-POWER SUPPLY.

## CAPITAL OUTLAY.

The capital outlay at Horahora at the end of the year was £576,841, as compared with £561,065 at the end of last year, an increase of £15,776, all of which was in operation at the end of the year.

In addition to the capital outlay provided under the Horahora scheme, the following works of total capital value of £268,107, provided under the Arapuni scheme, are in operation, and supplied with power from Horahora: Transmission-lines—Horahora–Hamilton and Penrose, Horahora–Arapuni–Ngongotaha, Waikino–Aongatete, Penrose–Takapuna, Bombay–Pukekohe; also substations at—Arapuni, Penrose, Bombay, Ngongotaha, Takapuna, Henderson.

The combined capital outlay on assets in operation on which capital charges are paid out of revenue, is thus as follows: Horahora, £576,841; Arapuni, £268,107: total, £844,948: as compared with £701,357 last year.

The capital outlay is analyzed in Table G herewith, which shows that the increase is principally in the item "Transmission-lines under the Arapuni scheme"—i.e., the Penrose–Takapuna 50,000 v. line, and the Arapuni–Hamilton 110,000 v. line.

## FINANCIAL RESULTS OF OPERATION, AND FUTURE PROSPECTS.

The year ended with a profit, after paying all working costs, interest, depreciation, and sinking fund, of £16,653, as compared with £10,006 last year. The annual revenue increased from £85,830 last year to £108,748 this year, an increase of £22,918, or 26·7 per cent. (Table F). The table below shows the sources of this revenue:—

| Revenue from—                                                                        | 1924.<br>£     | 1925.<br>£     | 1926.<br>£     | 1927.<br>£      |
|--------------------------------------------------------------------------------------|----------------|----------------|----------------|-----------------|
| Large mining companies .. ..                                                         | 24,635         | 18,086         | 16,476         | 16,150          |
| Four original Power Boards (Cambridge, Central, Te Awamutu, and Thames Valley) .. .. | 26,007         | 35,302         | 42,226         | 50,616          |
| Additional power Boards (other than Auckland) .. ..                                  | ..             | ..             | 504            | 6,173           |
| Auckland Power Board .. ..                                                           | ..             | ..             | 10,850         | 15,139          |
| Hamilton Borough .. ..                                                               | 4,621          | 5,461          | 6,205          | 6,888           |
| Tourist Department, Rotorua .. ..                                                    | ..             | ..             | 276            | 2,262           |
| Other wholesale consumers .. ..                                                      | 3,281          | 4,264          | 7,432          | 8,988           |
| Miscellaneous .. ..                                                                  | 1,380          | 2,071          | 1,861          | 2,532           |
|                                                                                      | <u>£59,924</u> | <u>£65,184</u> | <u>£85,830</u> | <u>£108,748</u> |