

7th to 11th and 24th to 25th June, 1926; 25th November, 1926; 7th to 13th January, 30th January to 1st February, 4th to 7th and 8th to 21st February, 5th to 13th March, 1927. Wanganui steam plant.—10th to 13th January, 31st January to 1st February, 4th February, 7th to 8th and 12th to 21st February, and 7th to 12th March, 1927. Palmerston North gas plant.—7th to 11th June, 1926; 10th to 13th January, 31st January to 1st February, 8th to 12th, 14th to 16th, and 19th to 20th February, and 7th to 12th March, 1927.

During the periods when the above plants were running the power-station plant was, of course, running in parallel and supplementing the above plants when required. In the early hours of the morning the whole of the load was supplied from the Wellington steam plant, the department's machines charging the lines. During these hours power from the Wellington plant was therefore being transmitted as far as Wanganui and Napier.

When it was necessary to run the steam plants, the loads between the fuel plants and the hydro-station were so adjusted that there was always sufficient water in the dams to supply the whole load for a day or two, in case of repairs being required for any plants, or other emergencies.

It was necessary to ask the Power Boards to reduce their peak loads for one day only during a period of low flow. With this exception no restrictions have been placed on the Power Boards with regard to load, even in those cases where the Boards have exceeded the amount allocated to them.

The maximum load to date is 20,040 kw., and the maximum number of units generated per week 2,007,180. The plant is therefore fully loaded on plant capacity, and overloaded by 25 per cent. on units generated.

The connected load on the system is analysed in Table R herewith.

GENERAL.

The whole system of transmission-lines and substations is now in operation, and all the oil circuit-breakers have been installed at the various substations. The map S. 62 shows the transmission-lines, substations, and the maximum load to date at each substation. The total length of 110,000 v. lines is 351 circuit miles, and there are eight substations and one switching-station on the system. The installation of the oil circuit-breakers and the replacing of the air-break switches has greatly improved the working of the system.

