

WAIKAREMOANA POWER DEVELOPMENT.

Preliminary Scheme.

The plant installed preliminary to the major scheme has been running satisfactorily, and has been supplying Wairoa and district and helping to build up the load for the major scheme. The total connected load has been 1,565 kw. and the observed maximum load 588 kw., equal to four-fifths of the power-house plant.

The lessees of the plant, the Wairoa Power Board, have added eighteen miles and a half of distribution-line to their system, and the total number of connected consumers now is 565.

A transmission-line to the Waikaremoana Hostel has been surveyed, and is under construction. The total length will be about four miles and a half.

During the year the workshop at the power-house has been completed, and has proved invaluable to the power-house staff when undertaking repairs.

The financial results, considering the plant simply as an operating station, are not very satisfactory, but, as the plant is really an advance portion of the large scheme of development at Waikaremoana, the capital investment is considerably greater than would have been necessary if the scheme had been put in purely for its present purpose of supplying power to the Wairoa Power Board. The capital outlay at the end of the financial year was £77,314, in addition to which there has been an accumulated loss of £7,160. Capital charges (interest and depreciation) amounted to £5,735, and the revenue to £2,440, resulting in a loss of £3,295 for the year.

Major Scheme.

Work on this scheme has been confined to survey. An alternative pipe-line and bores on same have been completed. Pits and bores at the intake and power-house to test foundations are in hand.

ELECTRIC-POWER BOARDS.

It is gratifying to note the interest that is being taken in Power Board business throughout the country, and the substantial progress made by the various Boards during the year. The attached coloured map shows the various Power Boards at present constituted.

The total area covered is 62,520 square miles or 61 per cent. of the total area of the Dominion. The total population concerned is 776,510, or 59 per cent. of the total population of the Dominion; and the unimproved value of the land included in the electric-power districts and outer areas is £231,485,074, or 70 per cent. of the total unimproved value of the Dominion. Considerably more than one-half of the Dominion is thus covered.

So far, many of the Boards have been engaged solely on preparatory and construction work and have not begun their all-important function of supplying power. It is felt that the recent completion of the Department's hydro-electric generating-station at Mangahao, and the extensions which are in hand at Lake Coleridge and at Horahora, and the prospect of large additional power at Arapuni, will make an extra amount of bulk power available which will greatly stimulate the Boards' activities.

The Boards already formed are carrying out their functions energetically. Fifteen Boards—viz., Thames Valley, Cambridge, Central, Te Awamutu, Banks Peninsula, Springs-Ellesmere, Ashburton, Hutt Valley, Horowhenua, Manawatu-Oroua, Dannevirke, Tararua, Wairarapa, Malvern, and South Canterbury—have carried out fairly complete reticulation of their areas, and are distributing power taken in bulk from the Public Works Department's hydro-electric-power plants at Horahora, Mangahao, or Lake Coleridge. The Auckland Board has taken over the city steam-power station, and is providing for extensions both of plant and mains. It has also entered into a contract to take the whole of its power, with a minimum of 15,000 kw., from the Government when the Arapuni Station is completed, which is estimated to be in 1928; meanwhile it is using power from Horahora to the extent to which this is available. Taranaki, while pushing on with its reticulation in anticipation of a general supply of hydro-electric power, is giving a partial supply from smaller stations in the meanwhile. Wairoa is taking power in bulk from the Department's station at Lake Waikaremoana, and supplies the borough and a few consumers in the neighbourhood. Three—viz., Southland, Otago, and Teviot—have local water-power stations in operation. Eight others—viz., Rangitikei, Waitemata, Central Hawke's Bay, Poverty Bay, Waitaki, Franklin, Hawke's Bay, and Waitomo—are arranging to take power in bulk from the Government hydro-electric sources, and are preparing their systems of reticulation with this end in view. The Grey Power Board is erecting a steam station of its own; the Wairere and Marlborough Power Boards are each erecting local water-power stations. The Tauranga, Otago, and Otago Central Boards have arranged to purchase power in bulk from other authorities. The other four—viz., Buller, Westland, Reefton, and Hobson—are making arrangements which have not yet been finalized.

Table N herewith gives details of the dates of construction, the area, population, and rateable value included in each of the thirty-nine power districts already formed, also the amounts of the loans already authorized, and the voting on each poll taken. The total amount of the loans authorized by the thirty-four districts which have already taken their polls is £9,372,238. The population of the districts concerned is 701,036, so that the loans authorized amount of £13·3 per head of population, as compared with £15·2 last year. The unimproved valuation of the districts is £260,990,882, so that the loans authorized amount to 3·6 per cent. of the unimproved rateable value of the lands