

## 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 57,876 square miles, or 55 per cent. of the total area of the Dominion. The total population concerned is 679,748, or 53 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 £202,359,574, or 63 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 early completion of the Department's hydro-electric generating-station at Mangahao, and the extensions which are in hand at Lake Coleridge and at Horahora, 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. Eight Boards—viz., Thames Valley, Cambridge, Central, Te Awamutu, Banks Peninsula, Springs-Ellesmere, Ashburton, 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 and 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. Six—viz., Southland, Wairarapa, Taranaki, Manawatu-Oroua, Horowhenua, and Taranaki—while pushing on with their reticulation in anticipation of a general supply of hydro-electric power, are 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. Two—viz., Opunake and Teviot—have small local water-power stations in operation. Seven others—viz., Dannevirke, Rangitikei, Hutt Valley, Central Hawke's Bay, Malvern, Waitaki, and Otago—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 Buller District, though constituted, has not yet elected a Board. The other ten—viz., Westland, Reefton, Grey, Otago Central, Wairere, Hobson, Kaipara, Marlborough, Poverty Bay, and Tauranga—are making special arrangements in each case which have not yet been finalized.

In addition to the thirty-six districts already formed, steps are being taken to form districts in Hawke's Bay, Hokianga, and Waitomo, including large areas in each case.

Table L herewith gives details of the dates of construction, the area, population, and rateable value included in each of the thirty-six 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 twenty-five districts which have already taken their polls is £7,941,000. The population of the inner areas concerned is 521,802, so that the loans authorized amount to £15.2 per head of population, as compared with £13.5 last year. The unimproved valuation of the inner areas is £153,383,640, so that the loans authorized amount to 5.2 per cent. of the unimproved rateable value of the lands pledged as security for the loans, which is practically the same as the figure for last year. The voting at the twenty-five polls amounted to 28,975 to 2,589—*i.e.*, a majority of 92 per cent. In one case (Te Awamutu District) the poll was unanimous, and in the Taranaki poll, in which the opposition was the strongest, the majority was still 77 per cent.

Table M herewith shows the capital expenditure incurred by each Board up to the end of the financial year, the revenue and expenditure, and the amount of rates struck and collected. The total capital outlay by the twenty-five Boards which have started construction is £3,212,296, but a great part of this is on works not yet in service. The gross revenue from the sale of electricity by the nine Boards which had commenced supply was £332,467, of which 65 per cent. was received by the Auckland Board. The general result is a profit over the whole business of the Power Boards of £4,534. A substantial portion of the interest on lines still under construction was charged to capital, so that the total amount raised by rating in order to cover the initial losses of those Boards not yet in active operation was only £9,319. With many of the schemes in the very early stages of supply this result is quite satisfactory. The rating for the next few years will have to be substantially heavier unless provision is made to enable Power Boards to carry forward losses in early stages of their operations, to be paid out of the profits which can be anticipated after the first few years, as the Department has done in connection with Lake Coleridge and Horahora. But, even so, such losses in the early stages do not indicate any want of security in the business as a whole, but are inherent in the starting of any concern depending to such an extent on a large initial capital outlay to earn a revenue which takes time to develop.

During last year seven of the Boards struck a general rate, which was only collected in five cases; and ten of the Boards struck special rates for the security for loans, only one of which had to be collected.

Several of the Boards are passing through a critical stage owing to the high cost and high interest rates ruling in 1921 when they started construction work, and to the fact that they have undertaken the construction of many lines without requiring the guarantees from consumers authorized by clause 7 (*d*) of the regulations. But costs and rates of interest are now substantially lower, and the other Boards are profiting by such experiences, and much better results will be attained by the Power Boards generally in future as the result of the experience of these earlier districts.

## LOCAL ELECTRIC-SUPPLY SYSTEMS.

Including the Government plants, there are now fifty-eight public electric-power stations in the Dominion, as detailed in Tables O and P herewith.

One new gas station started operation during the year—viz., Waipukurau (80 kw.); and four gas stations (Ashburton, Timaru, Winton, Ngaruawahia), and two water-power stations (Akaroa and Te Aroha) were closed down and supplied in bulk from existing hydro-electric stations.