

Statistics.—Records of growth of load and of stream flow have been kept and graphs made to show the relation of demand to existing plant and contemplated additions. From these it would appear that the ability of Mangahao and Waikaremoana to meet the demand, unaided, during the winter of 1933 will depend on a fairly prolific precipitation.

Investigation.—Preparatory to a general investigation of the power resources of the Waikato River a preliminary geological examination has been made of the river basin from Cambridge to Lake Taupo.

ELECTRIC-POWER BOARDS.

There are now forty-five districts constituted, and forty actually carrying out the distribution and sale of electrical energy (August, 1932). The total area covered is 69,410 square miles, or 67 per cent. of the total area of the Dominion; the total population concerned is 1,009,485, or 67 per cent. of the total population of the Dominion; and the unimproved value of the land included in the electric-power districts and outer area is £252,991,919, or 76 per cent. of the total unimproved value of the Dominion.

So far only one of the four main cities—viz., Auckland—has been included in the inner area of a power district, but of the secondary centres the cities of Wanganui, Palmerston North, and Invercargill, and the boroughs of Timaru, Napier, Hastings, Blenheim, Greymouth, Gisborne, and Oamaru are included. The advantage of Power Board organization is more obvious to rural than to urban rate-payers, and yet the above position indicates that some of the more important centres have realized that it is to their advantage generally to be associated with the country in undertaking the work of reticulation of electric power on a comprehensive scale.

Table XXV gives details of the date of constitution, the area, population, and rateable value of each of forty-five 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-nine districts which have taken their polls is £13,195,148. The population of the districts concerned is 954,498, so that the loans authorized amount to £13·78 per head of population as compared with £13·75 last year. The unimproved valuation of the districts is £223,359,733, the loans authorized amounting to 5·9 per cent. of the unimproved rateable value of the lands pledged as security for the loans. The voting at the polls totalled 66,291 to 12,349—i.e., a majority of 68·5 per cent.

Table XXVI shows the capital outlay incurred by each Board up to the end of the financial year 1931–32, the revenue and annual expenditure, and the amount of rates struck and collected.

The total capital outlay by the thirty-nine Boards which have started construction is £13,847,760, a small proportion of which is on works not yet in service. The gross revenue from the sale of electricity by the thirty-nine Boards which have commenced supply was £2,203,485, of which 29·5 per cent. was received by the Auckland Power Board. The general result is a profit over the whole business of the Power Boards of £126,663 for appropriation to depreciation and reserve funds, &c.

During the last year two of the Boards struck a general rate, which was collected in all cases, and three of the Boards struck special rates for the security for loans, which were collected in two cases.

LOCAL ELECTRIC-SUPPLY SYSTEMS.

Including the Government plants, there are now (31st March, 1932) forty public electric-power stations in the Dominion, as compared with forty last year.

During the year the Tai Tapu Dairy Co.'s area of supply was absorbed by the Springs-Ellesmere Power Board.

The total installed capacity (excluding standby plant) has increased during the year by 765 kw., or 0·397 per cent. (from 190,368 kw. to 191,133 kw.), while the sum of the maximum loads has decreased by 8,517 kw., or 4·7 per cent. (from 181,228 kw. to 172,711 kw.). The increase in installed capacity is mainly due to a new hydro station (the Kanieri Electric, Ltd.) going into commission during the year.

The proportion of installed plant is now as follows:—

	Stations.	Kilowatts.	Proportion per Cent.
Water-power	32	153,735	80·4
Steam-power (excluding hydro standby plants at Wellington (10,000 kw.), Invercargill (2,450 kw.), Waihi (1,500 kw.), Huntly (1,000 kw.), Dunedin (1,872 kw.))	3	37,100	19·6
Gas-power	2	112	..
Oil-power (excluding hydro standby plants at Penrose (3,750 kw.), Lyttelton (5,760 kw.) Dunedin (860 kw.), Marlborough (485 kw.))	3	186	..
	40	191,133	100·0

The number of consumers supplied has increased from 300,809 to 309,360, an increase of 8,551, or 2·85 per cent., for the year.

The total population included in the various areas of electric-supply is 1,400,589, or 93 per cent. of the total population of the Dominion, so that the ideal of a supply being available to every home in the Dominion is well on the way to realization.