

WAIKAREMOANA POWER SCHEME.

No new developmental work was carried out at Waikaremoana during the past year, but the station was operated continuously in conjunction with the Mangahao Station. Surveys and investigations are still in progress, and it will be necessary at no distant date to consider putting in hand work for the development of further power from Waikaremoana.

LAKE COLERIDGE SYSTEM.

As mentioned above, the severe drought in this area which commenced in the summer of 1930 continued right through until the end of that year. The result was that the level of the lake was drawn down to such an extent that supply authorities had to be asked to restrict their loading, so as to limit the drop in lake-level to such a point as would still enable the Department to take some advantage of the storage left to cover daily fluctuations in load. The Department was assisted to a very material extent by the co-operation of the authorities concerned, and it was possible to reduce the load over a period of about three months by approximately 2,000 kw. In addition, the Government made urgent inquiries for additional plant which could be installed to meet any prospective shortage this year, and which might also act as a general standby. As a result a Diesel generating-station was decided upon, and this has been established at Lyttelton. Four engines, each of 1,500 kw. capacity, were purchased in England, and the first of these went into operation at the end of June, and at the moment all four of them can be operated if necessary. The station has also been designed so that the three similar engines at present at Penrose (Auckland) can be removed and located in an extension to the station, and this will provide a total of 9,100 kw. available as standby. Fortunately the latter part of the past summer and the early winter has been unusually wet in this area, and the lake has so far recovered its level that it is now over 9 ft. higher than it was at the same time last year. This should ensure that it will be completely filled by the end of the year, and the position next summer, even without the operation of the standby plant, should be much more satisfactory.

WAITAKI HYDRO-DEVELOPMENT.

Work on this development has progressed at full speed throughout the year, approximately one thousand men having been continuously employed. Damage done to the temporary works during a heavy flood in February last, rendered necessary some modification to the original programme. It is not now proposed to close off the Otago half of the river this winter, as originally intended, but to leave this work for the following winter and to carry on meanwhile with the power-station and the work on the Otago shore.

After lengthy negotiations an agreement has been reached with the Dunedin City Corporation for the supply of power from the Waitaki - Lake Coleridge system. This will obviate the necessity for the City of Dunedin to further develop their own installation at Waipori, and will give the Waitaki system a valued customer. There is no question but that the interconnection of the two systems will add to the security and reliability of each of them, and be advantageous both to the Department and to Dunedin.

ELECTRIC SUPPLY OPERATING ACCOUNTS.

Horahora-Arapuni.—As mentioned earlier, the Arapuni Station has been out of operation for the greater part of the year, and during this time, for the purpose of accounting, the headworks have been considered as being under construction.

The financial position may be summarized as under

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Capital investment (total) at end of year	3,943,837
Revenue	184,593
Operating-expenses	101,889
Balance	<u>£82,704</u>