D-4 4

becoming farms comparable with any of those in the Tokoroa district on the other side of the Waikato River. Other stations will follow Maraetai, and, if fully developed, the Waikato River could ultimately be made to produce over 800,000 kW.

ELECTRICITY SHORTAGE AND CONTROL

In the North Island, as in the previous year, it has been necessary to exercise a considerable amount of restriction and control over electricity-supply in order to keep the demand within the means of supply. In the first part of the year it was hoped that, by fully utilizing the storage available at Lake Taupo and by drawing down the level of Lake Waikaremoana by means of siphons, we should be able to supply a demand about 3 per cent. greater than was the case last year. Unfortunately, that has not been possible, and since the middle of March considerable restrictions have had to be imposed. There has been for some time a definite shortage due to delays in delivery of plant and other causes, all more or less consequent on the war, but the exceptional drought period which was experienced in the centre portion of the Island in the past summer has made the position considerably worse. For the four summer months the rainfall recorded at the various rainfall stations in or adjacent to the Taupo and Waikaremoana watersheds was less than one-third of the rainfall recorded in the similar period averaged over the previous ten years, and less than one-half of the rainfall over the same period in any year of the previous ten. It has been necessary for the General Manager, in his capacity of Electricity Controller, to allocate to each Supply Authority a definite number of units for each week, the number being a specified increase or decrease, based upon the actual consumption in the corresponding week of previous years. As the various Power Boards and other Supply Authorities are in charge of the retail distribution of electricity, it was considered that they had a more detailed knowledge of the needs of the actual consumers and a more detailed knowledge of the ways in which economies could be effected. The responsibility of keeping down to the actual weekly allocation was, subject to a few general provisions, left in their hands. When it is remembered that there are over thirty Supply Authorities in the Island, that they supply over 300,000 consumers, with very varying requirements, or varying degrees of essentiality, and with varying means of control over different supply lines, it is inevitable that there must be some inconvenience and criticism. That there has not been more is, I think, to the credit of the Electricity Controller and the various Supply Authorities who have been required to carry out this most unwelcome, but necessary, duty.

AUXILIARY PLANTS

In my Statement last year I mentioned the fruitless search overseas for fuel-driven plant by the Inspecting Electrical Engineer of the Department. Early in this year there was a possibility of acquiring a 24,000 kW. floating power-station, two of which had been declared surplus by the United States of America upon the cessation of hostilities. A report was obtained, and, after full consideration, the plant was rejected as unsuitable on technical grounds. The plant required extensive overhaul in order to put it in condition to run, while time was also a factor, and it was very doubtful whether it could be reconditioned, towed to New Zealand, and commissioned before Karapiro Station could be brought into operation.

While it can be generally agreed that a measure of fuel-driven plant is desirable to act as a standby and to tide over periods of water shortage, the plant should be suitable for New Zealand conditions, and, above all, must be reliable. It is also desirable that the plant should not be purchased at a time when prices are at a peak, and when other countries, including Great Britain,

are in extremely urgent need of similar plant.