

ELECTRICITY CONTROL

The level at Taupo fell steadily until the middle of July, despite reasonably good rains in March and April. At Lake Waikaremoana storage had fallen steadily throughout the summer, and by April the lake was at an unprecedented low level, 11 ft. below full. The emergency restrictions which were commenced in March, 1946, in the North Island had to be continued until August, when storage at Lake Taupo recovered rapidly following good rains in that and the preceding month. The siphons installed at Lake Waikaremoana commenced operating in March, 1946, and enabled the Waikaremoana stations to increase output by drawing further upon lake storage. At the end of March, 1947, the lake was 19.7 ft. below overflow level.

By November, Lake Taupo was again full, and, anticipating an average rainfall during the intervening period and with the knowledge that Karapiro should commence to operate about April, 1947, the Supply Authorities were advised that, for the first quarter of 1947, their allocations of power would be 3 per cent. higher than for the corresponding period of 1946. Despite repeated appeals to restrict load to within the allocations, however, the actual consumption of electricity from January to March, 1947, was up 7.6 per cent., instead of the 3-per-cent. increase allowed. In this same period, extremely dry weather conditions were again experienced at Taupo and rainfall was only 40 per cent. of the average. During January and February and continuing into March, Taupo was falling at the average rate of 3 in. a week, and heavy demands had to be made upon storage at Waikaremoana to make good the deficiency at Taupo. By the middle of March almost four-fifths of the storage at Taupo had been depleted, and at Waikaremoana only about 3 ft. of storage remained which could be drawn upon by the siphons.

With the possibility of continuing dry weather at Taupo, it was essential to retain the remaining storage until rains set in, and no alternative remained but to restrict consumption of electricity in the meantime. The provisions of the Electricity Control Order were therefore amended on 20th March, 1947, and full powers vested in the various North Island Supply Authorities to restrict load to within their allocations by such means as they thought fit, with certain provisos relating to the maintenance of a sufficient supply of electricity for farming and certain other essential purposes. At the same time all Authorities were required to reduce their demand for electricity to 20 per cent. below their previous allocation.

Although in the South Island, up to the end of March, the position was not so difficult as in the North, the same adverse weather conditions had prevailed and the river flows were abnormally low. The indications were that, should these conditions continue into the winter, fairly severe rationing of electricity-supplies would also be necessary in this Island.

If average rainfall had been experienced during the summer and autumn of 1947, there would not have been any necessity for the emergency power rationing, but the conditions over both Islands were very unusual.

The stage has been reached where the load demand has overtaken the dry-season capacity of the hydro-electric stations, because the recent war has delayed the construction of various stations. The immediate post-war position is very disturbing, and it becomes nearly impossible to forecast the time required for any particular work. Under these conditions it seems necessary to exercise a measure of control over the rate of growth of load and to speed up the rate of construction of the hydro-electric stations. It is far beyond the ability of fuel stations to overtake the shortage; and the information available indicates that a steam station could not be built in less than four and a half years, even if the manufacturers were able to adhere closely to their estimated delivery times.