

The dry weather conditions broke early at Waikaremoana, good rains in April and again in May resulting in a steady recovery in lake-level.

By the middle of May the improvement in the hydraulic conditions made it possible to increase the allocations of electricity, and a month later the emergency restrictions were removed, the original allocations of power being restored in full.

In the twelve weeks during which the emergency restrictions applied the generation of electricity was reduced by 31.4 million units below the amount generated in the corresponding period of 1946. In the three months January to March, 1947, the electricity generated was 35.7 million units above that of the corresponding quarter of 1946, but almost two-thirds of this increase was accounted for by the consumption of power being above allocations. If consumption had not exceeded the allocations from January to March, some emergency restriction would still have been necessary in the succeeding months, but the severity of the restrictions would have been much less.

The second 30,000 kW. unit at Karapiro was put on test in September, and every effort was made to keep Lake Taupo full so that by the following winter advantage could be taken of the increased value of the storage. Lake Waikaremoana was drawn upon heavily, and at the end of December Taupo was nearly four-fifths full. Provided average hydraulic conditions obtained in the following months, it was expected that an average increase in load of about 5 per cent. above that of 1947 could be carried.

The Electric Supply Authorities were therefore advised in December of their individual allocations of power for the following twelve months. In previous years the authorities had been allowed each week the units consumed in the corresponding week of the past year, plus a given percentage increase. The power shortages in the past two or three winters had partly been caused by actual consumption in the summer months being substantially above the allocations given. For the calendar year of 1948, therefore, the total amount of units made available to each Authority was allocated week by week so as to meet the seasonal changes in demand met in the particular Supply Authority's area. The application of this changed basis of allocations would call for some limitations being placed on consumption in both the summer and winter months, but was calculated to obviate drastic restrictions and compulsory power cuts.

In the first seven weeks of the calendar year 1948 the consumption of power was nearly 4 per cent. above allocations, with a corresponding excessive draw upon storage. The Supply Authorities were informed of the position and advised that, unless the consumption of power was held to within the allocations, serious reductions in load might have to be made in the winter months. Rainfall in the Waikaremoana catchment for the four months November to February had been only 44 per cent. of the long-term average, and at Taupo during February only 23 per cent. In March advice was received that the winter requirements of oil fuel for the Evans Bay Power-station would be cut from April onward from 3,000 tons to only 1,000 tons a month.

The combination of those conditions made it necessary to plan ahead on the assumption that the dry weather would continue until the winter. Despite warnings to reduce load, the consumption above allocations showed no useful decrease. On the 11th March, therefore, instructions were issued for load to be reduced by 5 per cent. below the allocations, and on the 30th March this reduction was extended to 15 per cent.

In the South Island the Supply Authorities connected to the Coleridge-Waitaki-Waipori-Monowai system were informed in February 1947 that, provided average hydraulic conditions were experienced, an average increase of $7\frac{1}{2}$ per cent. in load could be met. Until the end of February, and in spite of the dry weather which was generally being experienced, Lake Coleridge storage was full, and flows in the Waitaki River were above the full-load capacity of the Waitaki Power-station. However, the adverse weather conditions continued, rainfall in the Lake Coleridge water-shed averaging only 47 per cent. of the long-term average for the five months January to May, and in the Waitaki catchment only 31 per cent. over the same period. River flows fell below average and storage had to be drawn upon prematurely.