

NORTH ISLAND SYSTEM

A. SYSTEM OPERATION AND LOAD DESPATCH

1. LOAD

The maximum half-hourly load on the system was 404,900 kW. carried between 1700 and 1730 hours on Monday, 20th June, 1949. Last year the half-hourly peak, which was also carried under normal frequency conditions, was 396,200 kW. between 1700 and 1730 hours on Tuesday, 20th July, 1948.

The highest Saturday peak was 344,500 kW. between 1730 and 1800 hours on the 6th August, 1949. Last year the peak was 334,200 kW. between 1730 and 1800 hours on 17th July, 1948.

The highest Sunday peak was 314,800 kW. between 1730 and 1800 hours on the 7th August, 1949, compared with 324,200 kW. between 1130 and 1200 hours on the 22nd August, 1948.

The greatest weekly generation was 43,464,000 units for the week ended Sunday, 14th August, 1949, an increase of 1.9 per cent. on last year's figure of 42,648,800 units. The maximum generation on any one day was 6,588,100 units on Tuesday, 9th August, 1949 (last year 6,430,100 units), an increase of 2.5 per cent. The highest Saturday generation was 5,850,300 units on 6th August, 1949 (last year 5,715,000 units), an increase of 2.4 per cent. The highest Sunday generation was 5,399,100 units on 7th August, 1949 (last year 5,431,500 units), a decrease of 0.6 per cent.

The total generation by all plants in the North Island system for the financial year ended 31st March, 1950, based on provisional returns, was 2,036,000,000, compared with 1,936,000,000 units for the previous year, an increase of 5.2 per cent. The system units generated by Government-owned plants only, plus units purchased from Supply Authorities, were 1,971,000,000 for the year ended 31st March, 1950, compared with 1,868,000,000 units for the previous year, an increase of 5.4 per cent.

Generation details by Government plants plus units purchased for resale (compared with 1948-49) are as follows :—

Station.	Year Ended 31st March, 1950.			Year Ended 31st March, 1949.		
	Maximum Kilowatts.	Units Generated.	Annual Load Factor.	Maximum Kilowatts.	Units Generated.	Annual Load Factor.
			Per Cent.			Per Cent.
Arapuni	161,500	788,277,000	55.7	151,000	742,468,000	56.2
Karapiro	99,600	502,657,000	57.6	96,200	488,667,000	58.0
King's Wharf ..	21,200	47,678,000	25.7	27,600	40,147,000	16.6
Mangahao	21,400	114,779,000	61.1	21,900	114,109,000	59.5
Penrose	..	152,000	..	..	2,011,000	..
Piripaua	134,400	133,853,000	35.0	118,900	131,133,000	35.7*
Tuaiti		212,416,000			198,627,000	
Kaitawa		65,803,000			40,623,000	
	..	1,865,615,000	..	..	1,757,785,000	..

Auxiliary and standby stations—

Evans Bay	69,229,000	68,250,000
Kaourau	2,872,000	3,371,000
New Plymouth ..	14,465,000	15,619,000
Opunake	1,925,000	1,866,000
South Taranaki ..	1,030,000	1,185,000
Taumarunui	3,572,000	3,567,000
Tauranga	7,230,000	7,339,000
Wilson's	2,726,000	1,865,000
Other miscellaneous ..	1,983,000	7,648,000

Total units generated and purchased 1,970,647,000

1,868,495,000

* Kaitawa not in full service until October.