

Wednesday, 18th July, 1945; the highest Saturday output was 4,643,000 units (last year 4,400,000) on Saturday, 28th July and the highest Sunday output 4,173,000 (last year 3,946,000) on Sunday, 29th July.

Generation details (compared with 1944-45) are as follows:—

Station.	Year ended 31st March, 1946.			Year ended 31st March, 1945.		
	Maximum Kilowatts.	Units generated.	Annual Load Factor.	Maximum Kilowatts.	Units generated.	Annual Load Factor.
King's Wharf ..	28,899	47,023,796	Per Cent. 18·5	29,199	26,817,637	10·5
Arapuni ..	130,000	897,224,300	78·7	129,800	758,195,400	66·7
Horahora ..	12,300	94,847,530	88·0	12,300	91,603,380	85·0
Tuaiti ..	62,700	192,129,700	34·9	65,500	287,337,945	50·1
Piripaua ..	44,000	126,295,040	32·7	44,000	180,698,200	46·9
Mangahao ..	20,900	124,823,000	68·1	20,900	106,820,000	58·3
	..	1,482,343,366	..	..	1,451,472,562	..

Auxiliary and standby stations—

Penrose ..	2,775,150	1,939,395
Wilsons ..	2,824,200	4,661,256
Taumarunui ..	3,473,330	3,774,630
Tauranga ..	8,839,844	9,250,155
New Plymouth ..	15,674,460	15,712,860
Opunake ..	1,648,838	1,653,927
Palmerston North ..	2,510,965	1,449,723
Kourarau ..	2,846,829	3,087,680
Evans Bay ..	47,338,100	37,405,030
Other miscellaneous purchases	5,730,769	2,126,050

Total units generated and purchased ..	1,576,005,851	1,532,533,268
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2. OPERATION AND MAINTENANCE

(a) Power-stations

Kings Wharf.—The poor hydraulic conditions resulted in heavy running for this station. A fault developed in the rotor of No. 10 5,000 kW. generator which necessitated rewinding. This was the first time any of the rotors had been touched, and the conditions found suggest that trouble is probable in the future in the other machines. Preparations were made to commission No. 7 generator to pick up some 750 kW. of local service load during power shortage, and this machine is expected to be in service in the winter of 1946. Good progress was made in the rewinding of No. 8 machine, and it is expected that this also will be in service in the winter of 1946.

Coal consumed was 52,624 tons, deliveries amounted to 47,418 tons, and 964 tons were sold under orders from the Mining Controller. Of the coal received, 30,045 tons came from the South Island and 17,373 tons from the North Island. The stock in hand at 31st March, 1946, was 1,940 tons.

The grit nuisance was very severe, and investigations into available types of grit-arresters were made. It was not found possible to determine the volume of material that the arresters would have to deal with nor to accumulate any data on particle size and character, but as a result of studies made it appears that we may soon be able to make an advance in this direction.