

Generation details by Government plants plus units purchased for resale (compared with 1945-46) are as follows:—

Station.	Year ended 31st March, 1947.			Year ended 31st March, 1946.		
	Maximum Kilowatts.	Units generated.	Annual Load Factor.	Maximum Kilowatts.	Units generated.	Annual Load Factor.
Arapuni	150,000	786,185,000	59·8	130,000	897,224,300	78·7
Horahora	12,500	88,235,950	80·6	12,300	94,847,530	88·0
King's Wharf	33,009	47,582,495	16·4	28,899	47,023,796	18·5
Mangahao	21,000	113,582,000	61·7	20,900	124,823,000	68·1
Penrose .. ..	..	9,089,920	..	..	2,775,150	..
Piripaua	44,000	182,872,510	47·4	44,000	126,295,040	32·7
Tuai	63,900	290,697,366	51·9	62,700	192,129,700	34·9
..	..	1,518,245,241	..	..	1,485,118,516	..

Auxiliary and standby stations—

Evans Bay	86,618,160	47,338,100
Hawke's Bay	1,262,189	1,004,814
Kourarau	2,973,397	2,846,829
New Plymouth	16,156,070	15,674,460
Onehunga	2,941,330	441,568
Opunake	1,633,599	1,648,838
Palmerston North	5,407,422	2,510,965
Poverty Bay	1,796,220	787,950
South Taranaki	1,112,024	230,816
Taumarunui	3,230,100	3,473,330
Tauranga	7,244,415	8,839,844
Wilson's	2,926,200	2,824,200
Other miscellaneous purchases	4,767,658	3,265,621

Total units generated and purchased 1,656,314,025

1,576,005,851

2. RELIABILITY OF SUPPLY

There were 261 faults, 20 of which caused no interruption to supply. Several faults were cumulative, affecting more than one district. Some of these were due to the system being overloaded. Lightning was responsible for 49 troubles, 11 of which occurred within three days.

A detailed analysis of interruptions is shown on the following table. These do not include pre-arranged shutdowns due to load rationing:—

Description.	Year ended 31st March, 1946: Number.	Year ended 31st March, 1947.		Distributing Authorities affected.
		Number.	Duration.	
1. 110 kV. lines: Defects	1	6	h. m. 0 39	3
2. 110 kV. lines: External causes	2	6	1 27	13
3. 33 kV., 50 kV., or 66 kV. lines: Defects	9	11	14 18	10
4. 33 kV., 50 kV., or 66 kV. lines: External causes	9	13	3 47	6
5. 6·6 kV. or 11 kV. lines: Defects	5	3	52 48	2
6. 6·6 kV. or 11 kV. lines: External causes	4	2	1 34	3
7. Lightning	30	49	34 32	25
8. Storms: Nature of trouble not found	5	2	0 07	2
9. 110 kV. apparatus .. ..	..	2	2 28	2
10. 33 kV., 50 kV., or 66 kV. apparatus	11	9	1 49	9
11. 5 kV., 6·6 kV., 11 kV., or 22 kV. apparatus	9	30	27 52	14
12. Generators or synchronous condensers	1	1	.. ..	..
13. Relays	4	5	0 34	5
14. Control circuits and batteries	5	10	4 56	12
15. Operation: Mistakes	7	6	0 51	9
16. Operation: Accidents	7	7	2 34	14
17. Faults and overloads on consumers' system .. ..	..	..	.. ..	..
18. Other causes	38	82	7 46	30
19. Cause unknown	11	17	3 57	25
Totals	158	261	161 59	184