

Units generated (compared with those for the previous year) were as follows :—

Station.	Year ended 31st March, 1948.	Year ended 31st March, 1947.	Percentage Increase.
Cobb Power-station	45,975,500	36,530,900	26
Auxiliary and standby stations	6,052,334	4,612,120	31
Total units	52,027,834	41,143,020	26½

Units generated by the standby and auxiliary stations, mainly during dry weather periods, represent 12 per cent. of the total. The completion and filling of the temporary earth dam at Cobb during December was of great advantage when dry weather set in early in the new year. By the third week of February, 1948, this temporary dam was two-thirds empty, and of the total storage (including lakes in the valley) of almost 2,500,000 units over half had been used. All demands were met without restrictions, and a reserve of approximately 500,000 units remained in storage on 27th March, when heavy rain restored all water-levels. Though the position was met satisfactorily, additional storage will be necessary to meet similar weather conditions with future increased load. The units drawn from storage during January to March totalled approximately 2,155,000.

2. RELIABILITY OF SUPPLY

The most serious interruptions were due to storms, and during one on 7th August, 1947, the 66 kV. line was broken and pole structures damaged at Riwaka. The alternative arrangements made to carry the load during the shutdown of the Cobb Station for the stone trap installation on 26th December were quite satisfactory until the sudden storm in the late afternoon put the system out of order. Although the Stoke-Blenheim 66 kV. line failed, the Marlborough Board was not inconvenienced, as the standby plants were already in operation.

An analysis of both accidental and prearranged shutdowns is set out below :—

Faults and Shutdowns on Departmental System

Description.	Year ended 31st March, 1947.	Year ended 31st March, 1948.			
		Accidental.	Prearranged.	Duration.	Distribution Authorities affected.
1. 66 kV. lines : Defects	{ 2	2	..	h. m. 3 25	3
2. 66 kV. lines : External causes	3	..	1	0 16	1
3. 11 kV. lines : Defects	1	..	1	2 29	..
4. 11 kV. lines : External causes	2	..	..	..	..
5. Lightning	1	1	..	0 05	2
6. Storms	16	2	..	11 1	3
7. 6·6 kV. apparatus	3	1	..	0 34	1
8. 11 kV. or 33 kV. apparatus	7	..	1	0 25	..
9. 66 kV. apparatus	1	..	2	3 42	1
10. Generators	..	..	..	..	..
11. Relays	1	..	1	1 11	1
12. Control circuits and batteries	..	..	..	..	..
13. Operation : Mistakes	..	..	..	..	..
14. Operation : Accidents	..	..	..	..	..
15. Faults and overloads on consumers' systems	..	..	..	..	..
16. Other causes	{ 6	6	..	1 46	3
17. Causes unknown	1	..	1	19 20	..
Totals	44	12	7	46 14	15