2. Reliability of Supply

There was a total of 232 faults. Of these, 4 were general system outages for periods of up to 10, 17, 14, and 23 minutes respectively, affecting a majority of consumers.

The duration given refers generally to the period of outage of the line or equipment concerned; the periods of interruption to consumers were usually shorter.

The following analysis does not include prearranged shutdowns.

Description.	Year ending 31st March, 1947.	Year ending 31st March, 1948.		
		Number.	Duration.	Distributing Authorities affected.
			h. m.	
1. 110 kV. lines: Defects	2	8	38 15	20
2. 110 kV. lines: External causes	3	7	1 17	7
3. 66 kV. lines: Defects	8	27	19 00	8
4. 66 kV. lines: External causes	1	8	18 48	16
5. 11 kV. lines: Defects	69	74	45 56	3
6. 11 kV. lines: External causes	41	38	27 22	7
7. Lightning	30	9	5 05	8
8. Storms: Nature of trouble unknown	8	18	12 38	1
9. 110 kV. equipment	2	5	25 53	5
10. 66 kV. equipment	3	7	8 45	5
11. 33 kV., 11 kV., or 6·6 kV. equipment	4	9	6 51	1
12. Generators	..	..	..	..
13. Turbines	1	..	..	..
14. Diesel-oil engines	..	..	..	..
15. Relays	..	..	..	..
16. Control circuits and batteries	1	..	..	..
17. Operation: Mistakes	1	3	0 40	5
18. Operation: Accidents	6	..	..	..
19. Faults and overloads on consumers' system	24	2	0 35	1
20. Other causes	8	..	..	..
21. Cause unknown	24	17	7 21	3
Totals	236	232	218 26	90

B. OPERATION AND MAINTENANCE

1. Power-stations

There were no serious defects or failures of permanent equipment. Two interruptions to supply from Waitaki were caused by failure of switchgear temporarily in service during alterations. Below average rainfalls were experienced until June. Rainfalls for the whole year were below those of the previous year.

Coleridge.—Owing to prolonged dry weather, and in particular the absence of north-west rain, the lake-level fell rapidly from 1,669·82 ft. at 31st March to 1,662·45 ft. on 7th June. Rationing of power and subsequent wet weather retrieved the position. The lake was filled to overflow level (1,673·5 ft.) by 9th November, remained full until the middle of February, and stood at 1,671·07 ft. at the 31st March, 1948.

Comprehensive overhauls of Nos. 2 and 3 generating-units were carried out, the work done including the welding of cavitated runners and the fitting of new sets of fabricated guide-vanes. A general overhaul of No. 4 unit was completed.