

At 31st March, 1949, 120,000,000 units were held in storage in Lakes Coleridge, Pukaki, Mahinerangi, and Monowai, as compared with 96,000,000 units at 31st March, 1948.

Generation details of the interconnected system (compared with 1947-48) are as follows:—

Station.	Year Ended 31st March, 1949.			Year Ended 31st March, 1948.		
	Maximum Kilowatts.	Units Generated.	Annual Load Factor.	Maximum Kilowatts.	Units Generated.	Annual Load Factor.
			Per Cent.			Per Cent.
Arnold .. ..	3,300	24,913,600	86.2	3,500	23,995,900	78.0
Coleridge .. ..	42,440	126,723,510	34.1	39,840	109,909,170	31.4
Dobson (oil) .. ..	..	443,370	..	..	3,083,550	..
Highbank .. ..	28,000	178,561,650	72.8	28,000	184,797,390	75.1
Monowai .. ..	6,500	34,894,650	61.3	6,700	28,323,700	48.2
Waitaki .. ..	82,920*	370,443,410	61.4*	68,580	326,523,430	54.2
Departmental totals	..	735,980,190	..	..	676,633,140	..
Dunedin City (all stations) .. ..	..	69,782,514	..	..	54,605,191	..
Invercargill City .. ..	..	1,755,480†	..	..	1,567,590	..
Kanieri Electric Co. .. ..	..	3,679,000†	..	..	2,691,625	..
Westland Power .. ..	..	1,181,496†	..	..	742,688	..
Others .. ..	..	6,960,910†	..	..	5,273,536	..
Grand total .. ..	..	819,339,590	..	..	741,513,770	..

\* Waitaki maximum demand, 68,300 kW., and units, 354,810,740, to 20th March, 1949. No. 5 unit in service, 21st March, 1949. † Provisional.

## 2. RELIABILITY OF SUPPLY

Although 222 faults were experienced, there were no general system outages.

The following analysis does not include prearranged shutdowns. 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.

Description.	Year Ended 31st March, 1948.	Year Ended 31st March, 1949.		
		Number.	Duration.	Distributing Authorities Affected.
			h. m.	
1. 110 kV. lines : Defects .. ..	8	2	15 58	13
2. 110 kV. lines : External causes .. ..	7	5	0 51	3
3. 66 kV. and 33 kV. lines : Defect .. ..	27	12	10 49	3
4. 66 kV. and 33 kV. lines : External causes .. ..	8	8	15 34	13
5. 11 kV. lines : Defects .. ..	74	79	81 20	1
6. 11 kV. lines : External causes .. ..	38	42	50 19	7
7. Lightning .. ..	9	7	25 20	8
8. Storms : Nature of trouble not found .. ..	18	22	10 33	1
9. 110 kV. equipment .. ..	5	1	7 41	..
10. 66 kV. and 33 kV. equipment .. ..	7	8	0 43	1
11. 33 kV., 11 kV., or 6.6 kV. equipment .. ..	9	20	11 24	5
12. Generators .. ..	..	1	0 07	7
13. Turbines .. ..	..	..	..	..
14. Diesel-oil engines .. ..	..	..	..	..
15. Relays .. ..	..	..	..	..
16. Control circuits and batteries .. ..	..	..	..	..
17. Operation : Mistakes .. ..	3	5	1 56	4
18. Operation : Accidents .. ..	..	..	..	..
19. Faults and overloads on consumers' system .. ..	2	2	0 07	2
20. Other causes .. ..	..	..	..	..
21. Causes unknown .. ..	17	8	4 28	1
Totals .. ..	232	222	237 10	..