

equipments have been installed at Khandallah and Bunnythorpe Substations. A contract has been let for carrier-current protective relaying and communication equipment for use over the Tuai-Bunnythorpe 110 kV. line, and delivery of material is now overdue.

A major deviation was made to the Bunnythorpe-Woodville telephone-line to allow it to clear the New Bunnythorpe site, and surveys made to bring all the other telephone-lines into the site when required.

SOUTH ISLAND SYSTEM

A. SYSTEM OPERATION AND LOAD DESPATCH

1. LOAD

The maximum half-hourly demand on the Department's generating-stations was 128,745 kW. at 17.30 hours on 1st July, as compared with 121,460 kW. the previous year, an increase of almost 6 per cent., as against an increase of 3 per cent. for the previous year.

The combined system maximum demand, which includes the Dunedin City Corporation plants and other auxiliaries, was 153,914 kW. at 12.00 hours on 1st October, representing an increase of 7.8 per cent. compared with the previous year's figures of 142,734 kW. and 5.98 per cent. respectively.

Generation details of complete interconnected system (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.
			Per Cent.			Per Cent.
Arnold	3,200	22,511,800	80.3	3,250	23,093,200	81.0
Dobson (oil) ..	..	3,268,240	..	..	377,400	..
Coleridge	38,980	142,279,330	41.8	41,800	133,015,560	36.3
Highbank	28,500	109,113,090	43.7	26,000	37,281,630	16.4
Monowai	6,600	28,689,050	49.6	6,600	24,599,300	42.3
Waitaki	67,980	342,237,950	57.5	68,000	358,588,820	60.2
Departmental totals	..	648,099,460	..	..	576,955,910	..
Dunedin City (all stations)	..	93,900,243	..	..	101,108,211	..
Invercargill City ..	..	1,576,090	..	..	35,900	..
Kanieri Electric Co. ..	..	5,398,140	..	..	5,348,440	..
Westland Power, Ltd.	..	2,023,200	..	..	1,371,040	..
Others	..	2,324,005	..	..	89,422	..
Grand total	..	753,321,138	..	..	684,908,923	..