Reliability of Generating-units.—The following table shows the reliability of the generating-units during the period for which records are available :—

(Period : April, 1933, to March, 1937.)

Unit.	Time on load.		Time idle.		Time under Repair.				Total Time.	
					Not in Demand.		In Demand.			
	Hours.	Per-centage.	Hours.	Per-centage.	Hours.	Per-centage.	Hours.	Per-centage.	Hours.	Per-centage.
1	32,897	93·82	1,552	4·43	615	1·75	..	..	35,064	100
2	32,834	93·64	1,120	3·19	1,110	3·17	..	..	35,064	100

Available Time = Time on load plus time idle.
Reliable Time = Available time plus time under repair and not in demand.

Unit.	Availability.	Reliability.
	Per Cent.	Per Cent.
1	98·25	100
2	96·83	100

(*b*) SUBSTATIONS.

Khandallah.—Two capacitor bushings failed during the year. The first caused a total shut-down to Khandallah Substation of 4 minutes, while the second fault was cleared without an interruption. Another fault cleared without an interruption was due to leakage over the capacitor bushings during a heavy rainstorm.

Other total shut-downs were—One of 8 minutes, due to a broken 110 kv. jumper; one of 3 minutes, due to a fault on the Khandallah–Melling line; and one of 27 minutes, due to a fault on the Mangahao–Khandallah line.

Melling.—The core from the 5,000 kv.a. transformer that was damaged by lightning last year has been rewound.

Paraparaumu.—This substation was put into service on the 9th December as a second point of supply for the Horowhenua Power Board.

Bunnythorpe.—Arrangements were made here for the overhaul of bushings from the various substations, and during the year forty-four transformer and O.C.B. bushings were reconditioned. Some 11 kv. switch-gear from Marton was also overhauled.

The transformer neutral bus was reconstructed, and the substation earthing-system modified.

Marton.—The line terminations were altered in connection with the rearrangement of the phasing at Wanganui.

Wanganui.—In connection with the installation of the new transformer bank, modifications were made to the existing phasing of the substation.

The termination of the south line was changed over from No. 1 to No. 4 bay in order to facilitate switching operations.

A shut-down occurred on one occasion due to a lightning-storm, a current-transformer chamber on one of the Power Board's feeders being considerably damaged.

Hawera.—The aluminium caps on the lightning-arresters were changed for brass ones to prevent electrolytic action between the caps and brass lugs at the end of the jumpers from the station 110 kv. bus.

Stratford.—A lightning-storm on the 8th November damaged the high-tension bushings on two 110 kv. potential transformers.

New Plymouth.—No trouble was experienced here during the year.

Okato.—Supply was commenced from this substation to the Opunake Power Board on the 1st November. No trouble has been experienced here since that date.

Opunake.—The departmental metering-equipment installed here has been regularly maintained.

Masterton.—No trouble was experienced here during the year.

Mangamaire.—A new well was sunk for the water-supply, and a new pump and pump-house erected.

Woodville.—The station battery was replaced by a new one of the motor-car type, and a trickle charger installed.

Dannevirke.—On the 16th January a severe lightning storm was experienced over the substation, which shattered all the lightning-arrester fuses, and caused an interruption of fifteen minutes.

The station battery was replaced by one of the motor-car type, and a trickle charger installed.