

from this isolated peak, the normal peak load was 36,780 kw., and, as we did not derive any revenue from the additional load, the use of the figure of 40,100 kw. would nullify any real comparison between the figures for this and previous years. Therefore, the figure of 36,780 kw. has been adopted as the maximum system load for the period under review.

1. Capital Outlay.

The capital outlay at 31st March was £4,460,382, of which assets to the value of £18,075 were not in operation.

2. Financial Results.

The total revenue for the year was £245,258, and working-expenses £53,900, which made a gross profit of £191,358, equal to a return of 4·32 per cent. on the average capital outlay in operation (£4,431,949).

The interest charge for the year was £177,217, an increase of £79,425 on 1934–35, owing to the Waitaki assets being in operation for the full year. An amount of £65,609 was transferred from the General Reserve Fund to enable the full appropriation to be made for the Depreciation Reserve.

No funds were available for sinking fund this year, the deficiency to this account was £53,493 at 31st March.

The accumulated Depreciation Reserve and sinking funds at 31st March, 1936, amounted to £659,116, and the General Reserve Fund to £175,809.

Table I gives full particulars of financial results, as well as other relevant statistical information.

The detailed operating-costs (Table III) shows that the total costs per unit generated for the year were 0·075d., compared with 0·057d. for the previous year. The increase in working-expenses is due mainly to the 7½-per-cent. restoration of salaries and wages, and the operation of Waitaki Station.

Table V shows the gross financial results of the distribution of energy of the South Island electric-power system and of the supply authorities and consumers who are supplied by it.

3. General.

The total units generated was 170,516,380, representing an increase of 12·67 per cent. on those for last year. Of these units, 149,698,738 were sold, while 3,329,480 were otherwise accounted for. The balance, representing losses, totalled 17,488,162 units, or 10·25 per cent. of the units generated.

The maximum system load increased from 32,540 kw. to 36,780 kw., an increase of 13 per cent.; although, as previously explained, an isolated peak of 40,100 kw. was registered.

Based on 36,780 kw., the annual load factor was 52·7 per cent.

The connected-load return shows a big increase, but this is largely due to the inclusion of the figures for the Dunedin City Corporation. Apart from this, however, the figures for the Christchurch City Council show a marked increase. The actual connected-load totals 355,840 kw., compared with 249,847 kw. for last year. The demand factor based on 36,780 kw. has fallen from 13·05 per cent. to 10·32 per cent.

4. Construction, Operation, and Maintenance.

(1) CONSTRUCTION.

(a) Power-stations.

Lake Coleridge Power-station.—There was practically no construction work done during this year, with the exception of the installation of an induction-regulator for use on the local service supply. This installation is not quite completed.

Waitaki Power-station.—The main part of this station was completed prior to the period under review, but minor additions were made consisting of the installation of No. 2 telephone-exchange; meters in staff cottages; fencing around the 110 kv. lightning-arresters; and handrails in the powerhouse. A 32-volt lighting system was put into operation in the top gallery of the dam.

The new hydraulic recorders for registering the lake and tail-race level were received and erected.

The temporary 66/11 kv. substation through which power was supplied during construction was dismantled.

(b) Substations.

Addington Substation.—The 66 kv. lightning-arresters were dismantled from the three incoming 66 kv. lines, one set being re-erected near the steel structure and connected to the bus-bars.

The new lighting standards associated with the outdoor structure were erected and put into service, with very satisfactory results.

Another two bays were added to the stores building, owing to the increasing demand for storage space.

Hororata Substation.—Two new cottages were built for the accommodation of linesmen.

Poult Substation.—Extensive alterations are in progress at this substation, due to the dismantling of the line to Ashburton. In future this substation will be unattended.

Ashburton Substation.—The two new cottages were commenced, but as yet have not been completed.

Good progress was made with the installation of the 11 kv. metal-clad switch-gear, the bulk of which was transferred from Timaru Substation. This switch-gear with its control panels is nearly ready for service.

It was found necessary to rebuild one of the line terminal structures in order to accommodate the new line from Hororata, as the poles of the old structure showed signs of decay.