

MEMBERS OF THE
Electricity Supply Commission.

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Escom House,
Rissik Street,
Johannesburg,

9th July, 1940.

To the Honourable
The Minister of Commerce and Industries,
Pretoria.

SIR,

In conformity with the provisions of Section 14 of the Electricity Act, No. 42 of 1922, the Commission has the honour to present its Seventeenth Annual Report, covering its operations for the year ended 31st December, 1939, together with a brief review of its activities up to 31st March, 1940.

In view of the present war conditions the Commission deems it advisable to present a somewhat brief report on this occasion and to deal only with the salient features of its activities during the period under review. For that reason also photographs have been omitted.

The unsettled state of affairs in Europe early in 1939, and the possible repercussions in this country, led the Commission to take the necessary measures for the safeguarding of the continuity of the supply of electricity from its Undertakings, so that on the outbreak of war the Commission was properly prepared for any eventualities.

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during the year was 3,761,808,345 units, a rise of 18·5 per cent. over the output of 1938. Sales of energy totalled 3,573,696,440 units, thus exceeding the three-thousand-million mark for the first time in the Commission's history.

There was an increase in the generating capacity of the power stations during 1939 of 171,926 kilowatts, which brought the total kilowatt capacity installed, or on order, at 31st December, 1939, to 954,156 kilowatts.

The Klip Generating Station was brought almost to completion, and construction on the Vaal Generating Station was inaugurated by the Chairman of the Commission in March, 1939.

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FINANCIAL.

The Commission's loan capital at the date of the balance sheet totalled £18,250,000, the whole of which has been publicly subscribed in South Africa.

During the year a loan of £2,000,000 at $3\frac{3}{4}$ per cent., at an issue price of £98 10s., redeemable on the 30th September, 1959-64, was successfully floated, and although a large public body had issued a loan for a similar amount only three weeks previously, the lists of the Commission's loan were closed within a few hours after flotation, and the confidence of the investing public in the Commission's financial stability was thus further demonstrated. This loan was primarily raised to finance capital commitments in respect of the Klip Generating Station, the new circulating water works for Salt River Power Station, and immediate requirements in connection with the new Vaal Station and plant extensions at Congella Power Station.

The amount in the Redemption Fund at 31st December, 1939, stood at £2,406,225, and the Reserve Fund at that date amounted to £1,389,351.

The book value of securities, representing investments in Government, Municipal, Rand Water Board, Electricity Supply Commission stocks, and debentures guaranteed by the Union Government, held by the Commission on behalf of the various funds at 31st December, 1939, was £3,937,228, the nominal value being £3,959,908. The market value of these investments at that date was £3,932,195.

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Expenditure on Capital Account during the year amounted to £1,174,054, which brought the total capital expenditure at 31st December, 1939, to £18,322,538. Capital expenditure on major works under construction and on minor extensions will bring the total expenditure on Capital Account to approximately £23,000,000.

Revenue, production costs and other important figures relating to operation of the Commission's Undertakings during the year 1939, with the comparative figures for 1938 are as follows:—

	1939.	1938.	Difference.
Total Revenue	£2,630,473	£2,232,022	+ 17·85%
Total Production Costs (including interest, redemption and reserve fund charges, but excluding a portion of Salt River Power Station costs paid by Cape Town Corporation under the Pooling Agreement)	£2,625,702	£2,218,696	+ 18·34%
Excess of Revenue over Production Costs	£4,771	£13,326	- £8,555
Average price per unit sold	0·172d.	0·176d.	- 2·05%
Average revenue per unit sold (including Sundry Revenue)	0·176d.	0·179d.	- 1·62%
Average cost per unit sold	0·176d.	0·178d.	- 1·29%
Total cost of coal consumed, including railage*	£752,707	£789,805	- 4·70%
Railage on coal consumed*	£257,002	£362,473	- 29·10%
Coal consumed (in tons of 2,000 lbs.)	3,028,767	2,630,740	+ 15·13%

* The decrease in the tonnage of coal consumed at the Salt River Power Station, with the coming into operation of the new Pooled Power Station at Table Bay, is largely responsible for the decrease in the total cost of coal, and almost entirely responsible for the decrease in railage charges.

During the past four years the average price per unit of electricity sold by the Commission has been reduced from 0·266d. in 1935 to 0·172d. in 1939.

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SALES OF ELECTRICITY.

There was an increase in the sales of electricity from all the Commission's Undertakings in 1939 of 19·70 per cent. The total sales were 3,573,696,440 units, the increase over the previous year's total being 588,243,851 units.

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There was an increase in the sales of electricity from all the Commission's Undertakings in 1939 of 19·70 per cent. The total sales were 3,573,696,440 units, the increase over the previous year's total being 588,243,851 units.

The sales recorded were:—

Undertaking.	Units Sold,		Increase or Decrease over 1938.	
	1939.		Units.	Percentage.
Natal Central	266,238,056		+ 31,289,899	+ 13·32
Witbank	767,741,727		- 372,545	- 0·05
Cape Town*	106,451,848		+ 7,650,229	+ 7·74
Durban	233,677,491		+ 24,181,711	+ 11·54
Sabie	6,380,657		- 859,510	- 11·87
Klip	2,193,206,661		+ 526,354,067	+ 31·58
	<u>3,573,696,440</u>		<u>+ 588,243,851</u>	<u>+ 19·70</u>

* Excluding units supplied to Cape Town Corporation under pooling arrangements.

The consumption of electrical energy by all classes of consumers increased during 1939. The two largest increases in consumption were for bulk supply for mining, etc., and direct supply for railway traction.

Class of Supply.	1939.	1938.	Percentage Increase.
Bulk Supplies—			
Mining, etc.	2,780,418,879	2,290,455,578	21·39
Municipal	270,088,077	251,165,717	7·53
Direct Supplies for—			
Mining	44,106,028	40,519,021	8·85
Industrial	103,190,738	88,907,972	22·98
Domestic and Street Lighting	13,990,173	10,520,028	32·99
Traction	361,905,545	308,884,273	17·17
	<u>3,573,696,440</u>	<u>2,985,452,589</u>	<u>19·70</u>

The total consumption of electricity on the Reef by the gold mining and other industries and municipalities, etc., exceeded 4,872,000,000 units in 1939, and approximately 63 per cent. was supplied from the Commission's power stations at Klip and Witbank, the balance being supplied from power stations owned by The Victoria Falls and Transvaal Power Company, Limited, three mining companies and the Johannesburg Municipality.

A large proportion of the electricity supplied in bulk to municipalities was used for domestic and lighting purposes.

A summary of the sales of electricity under the above heading since 1925, when the Commission first commenced to supply, is given on the next page.

SALES OF ELECTRICITY TO VARIOUS CLASSES OF CONSUMERS.

1925-1939.

(Kilowatt-Hours)

Year.	BULK SUPPLIES.		DIRECT SUPPLIES.				Annual Total.	Percentage Increase over Previous Year.	
	Mining.	Municipal.	Mining.	Industrial.	Domestic and Lighting.	Traction.			
1925	...	Nil	Nil	75,943	Nil	Nil	Nil	75,943	--
1926	...	159,532,156	755,882	651,458	743,083	Nil	Nil	161,682,579	—
1927	...	425,672,389	4,063,846	2,629,266	16,923,084	106,022	101,624,126	551,018,733	240·8
1928	...	444,317,209	23,803,250	16,189,019	19,140,132	400,625	124,062,060	627,912,295	14·0
1929	...	513,360,023	93,270,744	16,654,619	33,154,615	656,220	139,902,130	796,998,351	26·9
1930	...	583,989,147	117,296,480	20,732,779	36,792,584	1,009,170	129,791,764	889,611,924	11·6
1931	...	565,546,259	124,547,716	23,532,863	38,244,526	1,346,979	113,867,926	867,086,269	- 2·5
1932	...	572,600,047	143,487,503	23,020,446	37,526,127	1,643,400	112,457,639	890,735,162	2·7
1933	...	597,324,762	186,878,629	23,898,965	43,290,443	2,154,519	120,580,926	974,128,244	9·4
1934	...	590,829,908	159,042,270	27,201,215	58,699,962	3,002,691	146,385,448	985,161,494	1·1
1935	...	675,664,157	182,046,852	27,903,854	55,065,165	4,301,638	174,261,280	1,119,242,946	13·6
1936	...	1,190,801,515	206,757,057	31,932,815	64,350,389	6,120,142	188,085,190	1,688,047,108	50·8
1937	...	1,954,127,926	228,218,591	36,644,566	72,335,557	8,332,570	235,961,538	2,535,620,748	50·2
1938	...	2,290,455,578	251,165,717	40,519,021	83,907,972	10,520,028	308,884,273	2,985,452,589	17·7
1939	...	2,780,418,879	270,085,077	44,106,028	103,190,738	13,990,173	361,905,545	3,573,696,440	19·7
Per cent. 1939	77·80	7·56	1·23	2·89	0·39	10·13			

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Per cent. 1939	77.80	7.56	1.23	2.89	0.39	10.13		

RAILWAY ELECTRIFICATION.

Overseas conditions led to a delay in the delivery of the two double unit Mercury Arc Rectifier plants for sub-stations on the Rosburgh-Hillcrest section of the Natal old main railway line, which is being converted to electric traction. Delivery, however, is expected towards the end of 1940, but it is not anticipated that this section will be operated electrically until towards the end of 1941.

Early in 1940 the Railway Administration requested the Commission to provide five new traction sub-stations on the Reef to cope with the rapidly increasing traffic requirements.

The Mineral Line linking Canada Junction with Jupiter through the southern suburbs of Johannesburg was partially converted to electric traction at the beginning of 1940. The Booyens sub-station came into commercial operation on 2nd February, and electric traction is now employed on the section between Canada Junction and Village Main.

Previously the Pretoria and Pinedene sub-stations on the Germiston-Pretoria electrified section were fed only from the Pretoria Power Station, but a duplicate source of supply is now available from the lines of The Victoria Falls and Transvaal Power Company, Limited, at Olifantsfontein.

The total mileage of electrified railway lines in the Union of South Africa is: Route miles 605, or 1,232 miles single track equivalent.

RURAL ELECTRIFICATION.

The Commission's policy of making electricity available wherever practicable to inhabitants of rural areas was furthered during the year. As previously reported, the Commission decided to embark upon a scheme for supplying farms contiguous to the electrified railway system in Natal from an 11 kV. power line to be erected on the track structures, and tapped at suitable points.

Sections of the line have been, or are now being, constructed to serve small communities or groups of farms. It will be realised that this development must be a gradual one, and its fulfilment will be spread over a number of years, and may be retarded by the

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war. It will be seen from the detailed reports of the various Undertakings that there have been considerable extensions to the Commission's systems, notably on the South Coast of Natal, and in the Cape Western Province, which latter area may now be regarded as the most intensively electrified rural area in South Africa.

The total number of towns and villages supplied with electricity by the Commission in the Union at 31st December, 1939, was 95, and the number of farms supplied was 398, showing an increase of 14 and 43 respectively.

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DOMESTIC DEVELOPMENT.

An increase, not only in the total sales of electricity for domestic consumption, but also in the consumption per consumer supplied direct by the Commission, took place in 1939. Total sales for domestic and street lighting uses increased from 10,520,028 units in 1938 to 13,990,173 units, while the annual consumption per consumer increased from 1,484 units to 1,598 units. In view of the fact that many of these consumers, who now total 8,756, live in small and often isolated rural communities, this increase is regarded as satisfactory. An increase of over 33 per cent. in the total of units sold for domestic purposes by the Cape Town Undertaking is noteworthy.

Local authorities numbering sixteen purchased electricity in bulk from the Commission's Undertakings to a total of 270,085,077 units. The largest consumer was the Durban Municipality, and it should be remembered that a large proportion of these bulk supplies was re-sold for domestic consumption.

Since the beginning of 1940 the Municipality of Port Shepstone has taken a bulk supply of electricity from the Commission's Durban Undertaking.

PROMOTIONAL WORK.

Promotional work for the development of sales of electricity to all classes of consumers was continued during 1939. The circulation of the Commission's monthly publication, *Escom Magazine*, now exceeds 23,000 copies per month in all provinces of the Union.

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Throughout the year demonstrations of electric cooking, etc., were given, and in the Cape consumers purchasing major electric appliances were visited in their homes by trained demonstrators, who offered advice and instruction.

By means of articles and advertisements in newspapers and periodicals, and also at exhibitions additional propaganda was made.

The Commission was able to render organising supervision of a successful electrical exhibition sponsored by the Electricity Department of the Durban Corporation, which resulted in greatly increased sales under the Corporation's assisted purchase scheme despite war conditions. The Commission's exhibit at the Witwatersrand Agricultural Show in March, 1940, was awarded a gold medal.

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STAFF.

The staff employed by the Commission at its Head Office and at its various Undertakings, excluding the Klip and Witbank Power Stations—which are operated by The Victoria Falls and Transvaal Power Company, Limited, on behalf of the Commission—numbered 539 Europeans and 571 non-Europeans at 31st December, 1939, an increase of 20 and a decrease of 7 respectively, as compared with the numbers at the end of 1938.

The national importance of the Commission's essential services dictates a policy of caution with regard to the release for active service of its specially trained employees, and while the desire of many such employees to enlist is appreciated, the Commission has worked in the closest co-operation with the Defence Authorities, and has classified its personnel in the varying degrees of their dispensability in changing conditions of national emergency. Under this plan the Commission is able to make its maximum contribution to the nation's war effort.

The Commission takes this opportunity of expressing its appreciation of the efficient and loyal services of its staffs, and is confident that they will continue to serve to the best of their ability in whatever capacity they may be called upon to help the nation in the difficult times ahead.

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COMMISSION'S UNDERTAKINGS.

The operations and developments of the individual Undertakings are reviewed in detail in the following pages.

[General Note applicable to all Undertakings: The expression "Working Costs" includes Interest and Redemption Fund contributions on loan capital, and amounts set aside to Reserve Fund.]

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NATAL CENTRAL UNDERTAKING.

Plant Extension.

It was decided during the year to instal an additional 25,000 kW. generator at the Colenso Power Station to provide for further anticipated growth of load, and to assure adequate reserve capacity in plant. This set is now on order.

In addition to electricity for traction purposes, the station supplies in bulk the needs of ten Natal towns, a large number of industrial and mining consumers, and also individual needs of consumers resident in areas extending from south of Pietermaritzburg to Wakkerstroom and Amersfoort across the Natal border in the Transvaal and to Bethlehem in the Orange Free State. The growth of the station's output is set out in the following table:—

Year.	Units Sent Out.			Maximum Half-hourly Demand.
1927	106,707,808	25,600 kW.
1930	122,731,155	27,520 kW.
1935	161,835,353	33,400 kW.
1938	253,080,056	47,220 kW.
1939	281,191,807	53,560 kW.

Output of the Station.

The units sent out from the Colenso Power Station in 1939 totalled 281,191,807, an increase of 11·1 per cent. over 1938. The load factor was 59·9 per cent. and the thermal efficiency of the power station on units sent out was 17·8 per cent.

On 3rd November, 1939, a record daily output of over a million units was established by the station—1,008,700 units being generated in 24 hours.

Capital Expenditure.

The capital expenditure on the Undertaking as at 31st December, 1939, was £4,173,006, an increase of £88,541 as compared with the figure at the end of 1938.

Working Results.

The total working costs for the year amounted to £523,306, and the revenue to £524,545. The average price per unit sold decreased from 0·502d. in 1938 to 0·469d. in 1939.

Sales for all purposes were as follows:—				Percentage Increase.
		Units.		
Bulk (10 consumers—municipal)	...	35,593,655		13·56
Industrial and Mining (133 consumers)	...	8,935,315		9·80
Domestic and Lighting (1,519 consumers)	...	2,300,301		17·90
Railway Traction	...	219,408,785		13·38
		<u>266,238,056</u>		<u>13·32</u>

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Interconnector System.

A total of 24,000 units was sold to the Durban Undertaking through the interconnector system.

New Consumers.

The industrial and mining consumers have shown a numerical increase of 23, and the domestic and lighting consumers supplied by the Undertaking totalled 1,519.

New schemes for supply to farms or additions to existing farm schemes resulted in 23 more farms being connected to the system, giving a total of 99 at the end of 1939. During the period under review the township of Amersfoort, in the Transvaal, was connected to the system, and work was in progress for the supply of electricity to Kestell in the Orange Free State. In addition, reticulation systems were established at Charlestown, Ennersdale, Ingogo, Dundee South and Uithoek.

Hire Purchase Scheme.

Under the hire purchase scheme of the Natal Central Undertaking, which is largely confined to consumers in rural areas, an additional 19 ranges were installed during the year, bringing the total to 128.

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WITBANK UNDERTAKING.**Witbank Power Station.**

The output of the Witbank Power Station shows a decrease compared with the previous year, for the reason that an extensive programme of overhaul was undertaken and for a period the turbo-alternators were out of service in connection with the replacement of the alternator stators.

The 1939 sales to The Falls Company from this Undertaking were 587,212,218 units as compared with 623,602,984 units in 1938, the fall-off representing a decrease of 5·8 per cent. The Falls Company's demand fell from 88·4 per cent. of the total output of the station to 86·5 per cent.

The station, however, is catering also for an increasing industrial and domestic load in the Witbank and surrounding district. Industrial consumers total 61, including 16 mining consumers, and two large electro-chemical works.

New Consumers.

New consumers numbering 101 were connected to the Witbank system, bringing the total, at the end of 1939, to 843. Of these, 37 are on the new Oogies reticulation system, and the total domestic and lighting consumers now stands at 779. In addition, the Undertaking gives a bulk supply to the Middelburg Municipality.

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Sales were as follows:—

	Units.
Bulk (Middelburg Municipality)	1,059,600
Industrial and Mining (61 consumers)	88,635,412
Domestic and Lighting (779 consumers)	1,418,710
	<hr/>
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	<hr/> <hr/>

The mining and industrial sales increased by 12·4 per cent. over 1938, while domestic and lighting supplies increased by 13·8 per cent. and the supplies to Middelburg Municipality by 13·6 per cent.

Output and
Supplies for
Railway
Traction.

The station sent out in 1939, 3·8 per cent. less units than in 1938—the figure for 1939 being 678,805,550 units, but in addition the Witbank Undertaking sold to the Railway Administration for the Reef and Germiston-Pretoria electrification 89,415,787 units of electricity, an increase of 40·87 per cent., which was purchased by the Commission as follows:—

	UNITS.	
	1939.	1938.
Victoria Falls and Transvaal Power Co., Ltd.	82,258,614	63,011,733
Pretoria Municipality	7,157,173	461,564
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	89,415,787	63,473,297
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Thus the total sales from the Witbank Undertaking in 1939 were 767,741,727 units compared with 768,114,272 in 1938, a decrease of 0·05 per cent.

Capital
Expenditure.

The capital expenditure on this Undertaking was increased in 1939 by £64,853 to £2,544,635.

Working
Costs.

Revenue in 1939 advanced to £527,697 and working costs for the period were £524,025. The average cost per unit sold for all supplies increased from 0·149d. to 0·163d., but the average price for consumers other than The Victoria Falls and Transvaal Power Company, Limited, was reduced from 0·300d. to 0·280d., while the price for Reef traction decreased from an average of 0·400d. in 1938 to 0·397d. in 1939.

The maximum hourly demand sent out was 103,016 kW. and the load factor was 75·2 per cent.

The thermal efficiency on units sent out was 15·91 per cent.

At 31st December, 1939, sales of domestic electrical appliances under the hire purchase scheme of the Witbank Undertaking totalled :—

Ranges	146	Water Heaters	29
Refrigerators	69	Miscellaneous Appliances	663
Washing Machines	22				

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CAPE TOWN UNDERTAKING.

**Pooling
Agreement.**

The generating stations of the Commission and the Cape Town Corporation at Cape Town operate under a Pooling Agreement, and hitherto the Salt River Power Station of the Commission has been the chief generator. During 1939, however, the new Table Bay Station of the Cape Town Municipality began commercial operation and since its completion has assumed the role of base-load station.

**Salt River
Power
Station
Output.**

The units sent out from the Salt River Power Station during the year accordingly fell to 129,224,222 from 333,587,582 units in 1938. The Table Bay Station's output was 247,241,860 units, and with the output of the Council's old Dock Road Power Station (793,793 units) the total units sent out from the Pool Stations were 377,259,875. Of these 263,068,107 units were taken by the Cape Town Corporation under the Pooling Agreement, and the balance, less transmission and distribution losses, but plus 283,051 units generated at the Commission's Caledon Power Station, was sold to consumers of the Cape Town Undertaking as follows :—

	Units.	Percentage Increase over 1938.
Bulk (three municipalities)	14,623,082	18·6
Railway Traction	53,080,973	2·3
Industrial (290 consumers)	30,007,890	7·0
Domestic and Lighting—direct supplies (5,495 consumers)	8,739,903	33·8

The Undertaking's sales for the year show an increase of 7·74 per cent. over 1938 sales.

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Results.

The thermal efficiency of the Salt River Power Station on units sent out was 17·7 per cent. for the year 1939, as compared

with 20·3 per cent. in 1938. The fall in efficiency is, of course, accounted for by the transference of load to the Table Bay Power Station.

The maximum half-hourly demand sent out was 62,000 kW., and the load factor 23·6 per cent., calculated on 8,736 hours.

Revenue for the year was £354,874, and working costs £354,541, which includes a proportion of the pooled costs, consisting of the total costs of the Salt River, the Table Bay and the Dock Road Power Stations.

The average price per unit to all consumers of this Undertaking increased slightly from 0·781d. in 1938, to 0·789d. in 1939, due to the incidence of the demands of the various classes of consumers at varying tariffs.

Capital expenditure for the year was £199,975; bringing the total at 31st December, 1939, to £2,649,466.

The main item of expenditure was on construction of the improved circulating water works for the Salt River Power Station, which is being carried out in conjunction with the Government's Cape Town foreshore and harbour development scheme. By the end of the year the work was virtually complete.

On 1st January, 1939, the Commission acquired by purchase from the Caledon Municipality its electricity undertaking, including the sole rights to supply electricity in the Council's area of jurisdiction, and during the year operated the power station to supply 449 consumers (an increase during the year of 19). Sales totalled 233,051 units. This system is not yet electrically connected to the Cape Town Undertaking network.

The Municipality of Paarl entered into an extension of its agreement to purchase electricity in bulk from the Commission for a further period of 10 years as from 1st January, 1940.

There was considerable expansion in all fields of the Undertaking's operation. Farms connected to the system increased from 279 to 295, domestic and lighting consumers increased by 1,206 to 5,495, and industrial consumers from 237 to 290. An important new industrial consumer, engaged in the manufacture of cement, was given a supply during the year. This will entail a load of 1,600 kVA on full production.

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Expenditure.

Salt River
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Station.

New farm schemes and additions to existing schemes brought new consumers at Wellington, Devon Valley, Kromme Rhee, Eerste River, Sir Lowry's Pass Road and other areas.

Construction of the transmission line from Malmesbury to supply the village of Darling was commenced in 1939 and was still in progress at 31st March, 1940.

At the Epping Garden Village, a sub-economic housing scheme, where 600 houses are to be built, the Undertaking gave a supply to 390 dwellings at 31st December, 1939. Every house is to be wired for an electric range, and a large number of occupants have already installed a variety of domestic electrical appliances. Facilities for the hire purchase of appliances, with certain limitations, are being afforded to residents of this village by the Commission.

Sales of domestic electrical appliances under the hire purchase scheme of the Cape Town Undertaking up to 31st December, 1939, totalled:—

Ranges	1,707	Washing Machines ...	519
Refrigerators	242	Water Heaters	214

The foregoing figures refer only to appliances sold by the Commission to consumers taking supplies of electricity from the Commission's Reticulation System in the Cape areas. Facilities for the hire purchase of appliances in the Municipal area of supply are provided by the Cape Town Corporation.

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DURBAN UNDERTAKING.

**Power
Station
Extension.**

Construction on the planned extensions to the Congella Power Station at Durban, mentioned in the previous report, was commenced during 1939.

**Working
Results.**

The maximum half-hourly demand sent out from Congella Power Station was 62,533 kW, and the load factor was 42·7 per cent. The thermal efficiency of the power station on units sent out was 19·3 per cent.

The revenue for the year was £334,920, and working costs were £335,143.

**Capital
Expenditure.**

During 1939 capital expenditure on the Undertaking totalled £95,496, bringing the total at 31st December, 1939, to £1,548,830.

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**Supply to
Railway
Administra-
tion.**

Supplies to the South African Railways and Harbours Administration (for purposes other than traction) totalled 12,957,480 units.

A total of 2,156,800 units was sold by the Durban Undertaking to the Natal Central Undertaking through the inter-connector system. These units were used by the Natal Central Undertaking during periods of emergency and also to ascertain the characteristics and loading on the section of the electrified system adjacent to Durban.

By means of a connection made between the Booth Sub-station and the Congella Power Station, the power stations at Congella and Colenso can render assistance to each other in case of an emergency. This has proved of great mutual advantage on many occasions since the inception of the arrangement.

**South Coast
Supplies.**

For supply to consumers connected to the Durban Undertaking's South Coast distribution system (which commences at Umkomaas, south of the area served by the Corporation of Durban), the Commission purchased from the Corporation, in 1939, 1,878,950 units (an increase of 41·7 per cent.). A total of 67,203 units was also purchased from the Borough of Port Shepstone for supplying the consumers south of that town pending the completion of the main 33 kV. transmission line. The Commission's Margate Power Station generated 381,223 units in 1939. In January, 1940, a bulk supply to the Municipality of Port Shepstone was commenced under the agreement with the Commission.

**New
Consumers.**

There were considerable extensions to the Commission's system on the South Coast of Natal, and the total number of consumers supplied increased from 558 to 1,006. Besides additions to existing schemes, supplies were made available at Beneva, Cedars, Oslo Beach, St. Michaels-on-Sea, Shelly Beach, North Shepstone and Uvongo. The extensions now carry the area of supply to the far South Coast, more than 100 miles from Durban. Many of the areas served are seaside resorts, but in addition there are a number of farming consumers, and several industrial consumers in the sugar belt.

Sales to
South Coast
Areas.

Total sales for the year in the South Coast areas were 1,698,557 units, being an increase of 98 per cent. over 1938.

Extension of
33 kV. line.

During the year the 33 kV. transmission line along the railway track was extended to North Shepstone, from which point an 11 kV. line runs to Margate and Ramsgate.

The dependence, for economic reasons, of the South Coast supplies on a single transmission line, operating under adverse climatic conditions, has occasionally been the cause of unavoidable interruptions to supply with consequent inconvenience to consumers, but it is confidently expected that steps now being taken by the Commission in this connection will ensure a reliable and satisfactory supply in future.

Hire
Purchase
Scheme.

There was an increased demand for facilities for the hire purchase of ranges under the Commission's hire purchase scheme on the South Coast during 1939, and the total installed at the end of the year was 51.

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**South Coast
Supplies.**

For supply to consumers connected to the Durban Undertaking's South Coast distribution system (which commences at Umkomaas, south of the area served by the Corporation of Durban), the Commission purchased from the Corporation, in 1939, 1,878,950 units (an increase of 41·7 per cent.). A total of 67,203 units was also purchased from the Borough of Port Shepstone for supplying the consumers south of that town pending the completion of the main 33 kV. transmission line. The Commission's Margate Power Station generated 381,223 units in 1939. In January, 1940, a bulk supply to the Municipality of Port Shepstone was commenced under the agreement with the Commission.

**New
Consumers.**

There were considerable extensions to the Commission's system on the South Coast of Natal, and the total number of consumers supplied increased from 558 to 1,006. Besides additions to existing schemes, supplies were made available at Beneva, Cedars, Oslo Beach, St. Michaels-on-Sea, Shelly Beach, North Shepstone and Uvongo. The extensions now carry the area of supply to the far South Coast, more than 100 miles from Durban. Many of the areas served are seaside resorts, but in addition there are a number of farming consumers, and several industrial consumers in the sugar belt.

Sales to
South Coast
Areas.

Total sales for the year in the South Coast areas were 1,698,557 units, being an increase of 98 per cent. over 1938.

Extension of
33 kV. line.

During the year the 33 kV. transmission line along the railway track was extended to North Shepstone, from which point an 11 kV. line runs to Margate and Ramsgate.

The dependence, for economic reasons, of the South Coast supplies on a single transmission line, operating under adverse climatic conditions, has occasionally been the cause of unavoidable interruptions to supply with consequent inconvenience to consumers, but it is confidently expected that steps now being taken by the Commission in this connection will ensure a reliable and satisfactory supply in future.

Hire
Purchase
Scheme.

There was an increased demand for facilities for the hire purchase of ranges under the Commission's hire purchase scheme on the South Coast during 1939, and the total installed at the end of the year was 51.

SABIE UNDERTAKING.

Sabie
Power
Station.

The Sabie Power Station is the only hydro-electric generating plant owned by the Commission. The whole of the output of the station is supplied to two gold mining companies operating in the district.

Working
Results.

Electricity sent out from the station in 1939 amounted to 6,757,600 units, a decrease of 11·9 per cent. on 1938.

The maximum half-hourly demand was 1,225 kW., and the load factor was 74·85 per cent.

The total working costs increased from £13,311 in 1938 to £13,707 in 1939. Revenue for the year amounted to £13,457.

The average price per unit sold increased from 0·441d. in 1938 to 0·506d. in 1939 as a result of increased working costs and decreased consumption.

Capital
Expenditure.

The capital expenditure on the Undertaking as at 31st December, 1939, remained unchanged at £96,145.

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KLIP GENERATING STATION UNDERTAKING.

Construction Progress. At the close of 1939 the Klip Generating Station had been brought practically to completion.

Output. Electricity sent out from the station reached a total of 2,193,206,661 units, being an increase of 31·6 per cent. over the previous year. The Victoria Falls and Transvaal Power Company, Limited, operates the station on behalf of the Commission, and the whole output is sold to the Company, for supply to the gold mining industry and other consumers on the Witwatersrand.

Capital Expenditure. Capital expenditure on the station during 1939 amounted to £470,024, the total expenditure at 31st December, 1939, being £6,081,472.

Working Results. The operating costs and capital charges (interest, redemption and reserve) are paid by The Falls Company and amounted to £829,095 in 1939.

A total of 1,876,010 tons of coal was consumed at the station during the year.

Other working results for 1939 with corresponding figures for 1938 were as follows:—

	1939.	1938.
Average maximum hourly demand sent out	352,930 kW.	218,645 kW.
Average load factor	70·9 %	87·0 %
Station thermal efficiency (units sent out)	21·17%	21·38%
Average price per unit sold	0·090d.	0·086d.

RAND EXTENSION UNDERTAKING.

The Rand Extension Undertaking comprises a transmission and distribution system and is operated as part of the Witwatersrand grid system by The Victoria Falls and Transvaal Power Company, Limited, under a licence granted to the Commission and ceded to The Falls Company.

All capital expenditure on this Undertaking is financed by the Commission, and the charges for interest, redemption, reserve and administration are recovered from the Company. These charges in respect of the year ended 31st December, 1939, amounted

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to £45,885. The Company also bears its own costs of operating and maintaining the system.

During the year 1939 capital expenditure on the Undertaking was increased by £137,746 to a total of £720,443.

The transmission lines and cables serving this Undertaking at 31st December, 1939, totalled approximately 349 route miles and the installed transformer capacity at that date was 134,800 kVA.

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VAAL GENERATING STATION UNDERTAKING

Construction on this station was commenced in 1939. It is possible, however, that the delivery of plant will be delayed by war conditions.

Progress has been satisfactory on the construction of the circulating water system, including the two hyperbolic cooling towers each 320 feet high, coal appliances and railway sidings. Water will be drawn from the Vaal River under agreement with the Rand Water Board.

The capital expenditure as at 31st December, 1939, was £119,095.

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MUNICIPAL ELECTRICITY SUPPLY SCHEMES.

In terms of Section 38 of the Electricity Act, the Commission is required to report to the Administrators of the various provinces on the proposals of urban local authorities to establish electricity undertakings or to enlarge existing undertakings, and up to 31st December, 1939, 430 reports and 220 supplementary reports on tenders had been submitted.

During the year 1939 the following schemes were reported on by the Commission:—

TRANSVAAL.

New Scheme.

Meyerton.
Warmbaths.

Extension.

Johannesburg.
Klerksdorp.
Lydenburg.
Rustenburg.
Schweizer Reneke.

Tenders.

Lydenburg.
Meyerton.
Pietersburg.

NATAL.

ORANGE FREE STATE.

Villiers.
Vredefort.

Bothaville
Heilbron.
Paulpietersburg.

Heilbron.
Kopjes.
Villiers.
Vredefort.

CAPE.

Engcobo.
Loxton.
Pearston.
Postmasburg.
Williston.

Aliwal North.
Bedford.
Idutywa.
Kingwilliamstown.
Montagu.
Mossel Bay.
Queenstown.
Stutterheim.
Swellendam.

Aliwal North.
Bedford.
Grahamstown.
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Victoria West.
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Of the total of 430 Municipal Electricity Supply schemes reported upon by the Commission 163 were new schemes.

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ANNEXURES.

The Commission submits for the year 1939, with this Report:—

ANNEXURE " A. "

- The Report of the Auditors.
 - Balance Sheet.
 - Schedule of Expenditure on Capital Account.
 - Statement showing the Investments of the Redemption Fund.
 - Account No. 1.—Redemption Fund Account.
 - Account No. 2.—Reserve Fund Account.
 - Revenue and Expenditure Accounts in respect of:—
 - Account No. 3.—Natal Central Undertaking.
 - Account No. 4.—Witbank Undertaking.
 - Account No. 5.—Cape Town Undertaking.
 - Statement of Pooled Costs—Cape Town.
 - Account No. 6.—Durban Undertaking.
 - Account No. 7.—Sabie Undertaking.
 - Account No. 8.—Klip Generating Station Undertaking.
 - Account No. 9.—Rand Extension Undertaking.
-

ANNEXURE " B. "

- Statement No. 1.—Summary of principal plant and equipment installed at the Commission's several Undertakings as at 31st December, 1939.
- Statement No. 2.—Summary of principal plant and equipment in course of installation or on order as at 31st December, 1939.
- Statement No. 3.—Showing the price or rent of land or rights or interests in or over land or other property acquired or hired by the Commission during the year 1939.
- Statement No. 4.—Units sold to all consumers during the past fifteen years.
- Statement No. 5.—Distribution of units sold during 1939 as between the various classes of consumers.
- Statement No. 6.—Power Station Statistics, 1939.
- Statement No. 7.—Particulars of coal used at the Commission's Steam-raising Power Stations during 1939.

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ANNEXURE "C."

Union Statistics relating to the production and distribution of electricity. This information, which was extracted from the 1937/38 Industrial Census, is published in this Report by the courtesy of the Union Census and Statistics Office.

I have the honour to be

Sir,

Your obedient servant,

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CHAIRMAN.

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ANNEXURE " A. "

THE REPORT OF THE AUDITORS.

Johannesburg.
15th May, 1940.

The Chairman and Members,
Electricity Supply Commission,
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GENTLEMEN,

We have completed the audit of the books and accounts of the Commission for the year ended 31st December, 1939.

REDEMPTION FUND.

In the course of our audit we have investigated the position of the Redemption Fund established by the Commission in terms of the Schedule to the Electricity Act to provide for the redemption of the securities issued by the Commission.

We find that in the aggregate the amount in the Fund at 31st December, 1939, is materially in excess of the requirements as laid down in Clause 16 of the Schedule. This excess is due to various reasons, the chief one being that the Commission has in many cases caused provision for redemption to be made to redeem capital outlays over a shorter period than that required by the provision of the Schedule.

The various reasons which have caused the Commission to provide this excess appear to us to be sound and desirable in view of the position and locality of certain of the Undertakings and of the right the Commission has to pay off certain of the loans at an earlier date than the latest date laid down in the terms of issue.

In the case of Loan No. 9 there is no statutory obligation up to the end of 1939 to provide for redemption, as the Minister had up to the end of the year not yet fixed the date on which redemption should commence in terms of Clause 16 (2) of the Schedule.

HEAD OFFICE ADMINISTRATION, ENGINEERING AND GENERAL EXPENSES, INCLUDING PUBLICITY.

The gross amount of this expenditure is more than the corresponding figure for the previous year. It includes, *inter alia*, (1) cost of the publicity department, including the publication of the Escom Magazine; (2) cost of operating Escom House, less rents received; and (3) certain expenditure in connection with the London Office.

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Against the total amount has been set off or credited:—

- (1) Fees accruing to the Commission in connection with the establishment of the Klip, Rand Extension and Vaal Undertakings in terms of agreements with The Victoria Falls and Transvaal Power Company, Limited.
- (2) Other amounts transferred to cost of capital works at Undertakings for services of Head Office Staff.
- (3) Fees for Reporting on Power Schemes of Local Authorities.
- (4) Amounts chargeable to Revenue Accounts under other headings.

The amount remaining has been charged against the Revenue Accounts of all the Undertakings. In the case of the Klip, Rand Extension and Witbank (Power Station) Undertakings, the amount is determined by agreement with The Victoria Falls and Transvaal Power Company, Limited. The expenditure charged to the other Undertakings has been apportioned by the Commission. We have no reason to disagree with the allocation so made.

CAPE TOWN UNDERTAKING.

Included in the statement of amounts charged to Pooled Costs are charges for Interest and Redemption made by the Cape Town City Council in respect of loans raised by the Council and utilised to defray the cost of the Table Bay Power Station.

The application of the financial arrangements previously made in respect of these loans is at present the subject of negotiation between the parties to the Pooling Agreement. Any adjustments arising therefrom will be made in the accounts of subsequent years.

KLIP UNDERTAKING.

Following previous practice, we have accepted the accounts rendered by The Victoria Falls and Transvaal Power Company, Limited, which Company, in terms of agreement with the Commission, operates the station and is the sole consumer on a cost basis. The Capital charges made by the Commission have been verified by us. The resulting figures have been summarised in the Klip Revenue Account.

RAND EXTENSION UNDERTAKING.

In terms of agreement between The Victoria Falls and Transvaal Power Company, Limited, and the Commission, the Company is the sole user of the Undertaking under cession of the licence and operates and maintains the same at its own cost. The expenditure of the Commission in connection with the Undertaking (including Capital Charges) is recovered from the Company, and the figures relating thereto are shown in the Revenue Account of the Undertaking.

GENERAL.

As the result of our audit of the books and accounts of the Commission for the year 1939, and, subject to the foregoing remarks, in terms of Clause 13 (4) of the Electricity Act, 1922, we certify as follows:—

- (a) We have found the Accounts of the Commission to be in order.
- (b) The Accounts issued present a true and correct view of the financial position of the Commission and of its transactions and of the result of trading.
- (c) Due provision has been made for the redemption and repayment of moneys borrowed.
- (d) As formerly, the Land and Rights, Buildings and Civil Works and Machinery and Plant are set out in the Balance Sheet as on a cost basis. This expenditure will be amortised over a period not exceeding the currency of the loans by the operation of the Redemption Fund.

The value of the other assets of the Commission is correctly stated.

- (e) Sums fixed by the Commission have been set aside to the Reserve Fund under Section 9 as prescribed.
- (f) All our requirements and recommendations as Auditors have been complied with and carried out.

Yours faithfully,

(Signed) ALEX. AIKEN & CARTER.
B. HALSEY.

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Electricity Supply

Incorporated under the
BALANCE SHEET at

Loan Capital		£18,250,000	0	0
Loan No. 1: Government of the Union of South Africa	£3,000,000		0	0
Loan No. 2: Government of the Union of South Africa	5,000,000		0	0
	8,000,000		0	0
<i>Less</i> —Repaid during 1933 and 1934	8,000,000		0	0
	0		0	0
Local Registered Stocks—				
Loan No. 3: 4½ per cent., 1953/63	500,000		0	0
Loan No. 4: 4½ per cent., 1953	2,500,000		0	0
Loan No. 5: 3½ per cent., 1954/64	6,750,000		0	0
Loan No. 6: 3½ per cent., 1959/64	2,500,000		0	0
Loan No. 7: 3½ per cent., 1956/66	2,000,000		0	0
Loan No. 8: 3½ per cent., 1957/67	2,000,000		0	0
Loan No. 9: 3½ per cent., 1959/64	2,000,000		0	0
	88,168		13	3
Interest Accrued on Loan Capital				
Sundry Loans and Amounts Outstanding for Rights				
Acquired		158,538	15	5
Umkomaas Town Board	8,380		0	0
Volksrust Municipality	24,513		19	2
Rand Water Board	115,896		2	6
Caledon Municipality	9,748		13	9
	367,780		1	1
Sundry Creditors and Credit Balances				
Pension Fund		116,093	19	6
Redemption Fund (as per Account No. 1)		2,406,224	17	7
Sinking Fund (Umkomaas Town Board Loans)		1,702	18	0
Sundry Loans Repaid		15,265	12	8
Reserve Fund (as per Account No. 2)		1,389,351	8	4
Balance on Revenue Accounts		85,186	9	5
(As per Accounts Nos. 3 to 7)				
Natal Central Undertaking	30,822		0	8
Witbank Undertaking	33,605		14	2
Cape Town Undertaking	4,797		3	5
Durban Undertaking	15,149		7	2
Sabie Undertaking	812		4	0

NOTE.—In addition to the liabilities shown above, the Commission is committed to the extent of approximately £3,616,000 for expenditure on Capital Account and £80,800 chargeable against Reserve Fund.

£22,878,312 15 3

H. J. VAN DER BIJL, Chairman.
A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
24th April, 1940.

Commission.

Electricity Act, 1922.

31st DECEMBER, 1939.

Expenditure on Capital Account		£18,322,538	1	10
(As per Schedule attached)				
Land and Rights	£285,605		1	0
Buildings and Civil Works	4,807,733		8	1
Machinery and Plant	13,229,199		12	9
	73,861		3	6
Movable Plant and Equipment (less depreciation)				
Workshop Equipment, Instruments, Tools and Loose Plant	32,405		8	11
Transportation Equipment	5,781		13	1
Furniture, Fixtures and Fittings	35,674		1	6
	201,799		5	1
Stores and Materials				
Sundry Debtors and Debit Balances		249,649	8	8
Cash on Current Account		93,236	10	2
Investment of Pension Fund				
Amount invested in Municipal, Rand Water Board and Electricity Supply Commission Stocks	115,374		6	0
Interest Accrued	629		10	2
	2,407,124		9	2
Investment of Redemption Fund				
(As per Statement attached)				
Investment of Sinking Fund				
Amount invested in Municipal and Electricity Supply Commission Stocks	2,404		0	0
Interest Accrued	21		9	1
	1,411,674		11	7
Investment of Reserve Fund				
Amount invested in Stocks and Securities of the Government of the Union of South Africa, Municipalities and Electricity Supply Commission and Debentures guaranteed by the Government of the Union of South Africa	1,400,442		17	10
Interest Accrued	11,231		13	9

£22,878,312 15 3

Referred to in our Report of 15th May, 1940.

ALEX. AIKEN & CARTER, }
B. HALSEY, } Auditors.

Electricity Supply

SCHEDULE OF EXPENDITURE ON CAPITAL

Expenditure in connection with Electricity Undertakings.	Total to 31st December, 1938.	Year ended 31st December, 1939.	Total to 31st December, 1939.
NATAL CENTRAL UNDERTAKING:			
Land and Rights	£21,149 9 11	£677 12 9	£21,827 2 8
Buildings and Civil Works	755,640 14 10	7,436 16 9	763,077 11 7
Machinery and Plant	3,307,674 17 7	80,426 3 1	3,388,101 0 8
	£4,084,465 2 4	£88,540 12 7	£4,173,005 14 11
WITBANK UNDERTAKING:			
Land and Rights	£9,648 9 1	£143 2 2	£9,791 11 3
Buildings and Civil Works	582,530 19 10	21,152 4 11	603,683 4 9
Machinery and Plant	1,887,602 8 1	43,557 19 8	1,931,160 7 9
	£2,479,781 17 0	£64,853 6 9	£2,544,635 3 9
CAPE TOWN UNDERTAKING:			
Land and Rights	£23,918 11 3	£1,306 3 2	£25,224 14 5
Buildings and Civil Works	776,119 3 5	153,997 12 0	930,116 15 5
Machinery and Plant	1,649,453 14 2	44,670 15 10	1,694,124 10 0
	£2,449,491 8 10	£199,974 11 0	£2,649,465 19 10
DURBAN UNDERTAKING:			
Land and Rights	£31,010 16 4	£165 2 0	£31,175 18 4
Buildings and Civil Works	391,975 15 6	635 8 9	392,611 4 3
Machinery and Plant	1,030,347 10 9	94,695 15 2	1,125,043 5 11
	£1,453,334 2 7	£95,496 5 11	£1,548,830 8 6
SABIE UNDERTAKING:			
Land and Rights	£510 0 0	—	£510 0 0
Buildings and Civil Works	60,464 18 5	—	60,464 18 5
Machinery and Plant	35,169 14 10	—	35,169 14 10
	£96,144 13 3	—	£96,144 13 3

Johannesburg,
24th April, 1940.

Commission.

ACCOUNT TO 31st DECEMBER, 1939.

Expenditure in connection with Electricity Undertakings.	Total to 31st December, 1938.	Year ended 31st December, 1939.	Total to 31st December, 1939.
KLIP GENERATING STATION UNDERTAKING:			
Land and Rights	£127,993 12 9	—	£127,993 12 9
Buildings and Civil Works	1,559,227 9 10	£40,581 14 9	1,599,809 4 7
Machinery and Plant	3,924,227 1 0	429,442 1 11	4,353,669 2 11
	£5,611,448 3 7	£470,023 16 8	£6,081,472 0 3
RAND EXTENSION UNDERTAKING:			
Land and Rights	£2,079 17 11	£7,417 0 8	£9,496 18 7
Buildings and Civil Works	6,578 4 8	2,909 19 8	9,488 4 4
Machinery and Plant	574,039 4 7	127,419 5 3	701,458 9 10
	£582,697 7 2	£137,746 5 7	£720,443 12 9
VAAL GENERATING STATION UNDERTAKING:			
Buildings and Civil Works	—	£118,621 15 8	£118,621 15 8
Machinery and Plant	—	473 0 10	473 0 10
	—	£119,094 16 6	£119,094 16 6
ESCOM HOUSE:			
Land	£59,585 3 0	—	£59,585 3 0
Building and Equipment	331,536 9 10	Cr. £1,676 0 9	329,860 9 1
	£391,121 12 10	Cr. £1,676 0 9	£389,445 12 1
SUMMARY:			
Land and Rights	£275,896 0 3	£9,709 0 9	£285,605 1 0
Buildings and Civil Works	4,464,073 16 4	343,659 11 9	4,807,733 8 1
Machinery and Plant	12,408,514 11 0	820,685 1 9	13,229,199 12 9
	£17,148,484 7 7	£1,174,053 14 3	£18,322,538 1 10

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Electricity Supply

Statement showing details of Investments of the

	Nominal Amount.	Loan No. 3. £500,000 4½% Local Registered Stock, 1953/63.	Loan No. 4. £2,500,000 4½% Local Registered Stock, 1953.	Loan No. 5. £6,750,000 3½% Local Registered Stock, 1954/64.
Electricity Supply Commission 4½% Local Registered Stock, 1953/63	£95,200 0 0	£38,439 18 8	—	£58,450 0 0
Electricity Supply Commission 4½% Local Registered Stock, 1953 ...	220,023 0 0	—	£215,523 0 0	—
Electricity Supply Commission 3½% Local Registered Stock, 1954/64	594,813 0 0	10,000 0 0	—	509,163 3 4
Electricity Supply Commission 3½% Local Registered Stock, 1959/64	42,810 0 0	—	—	—
Electricity Supply Commission 3½% Local Registered Stock, 1956/66	330,300 0 0	16,490 0 0	92,767 3 9	143,560 0 0
Electricity Supply Commission 3½% Local Registered Stock, 1957/67	305,900 0 0	24,287 10 0	85,565 5 0	77,628 10 0
Electricity Supply Commission 3½% Local Registered Stock, 1959/64	445,800 0 0	19,482 19 9	90,028 0 2	152,162 2 5
Union of South Africa 4½% Local Registered Stock, 1953 ...	328,265 0 0	—	328,265 0 0	—
South African Iron and Steel Indus- trial Corporation, Limited, 5% Guaranteed First Mortgage Re- gistered Debentures, 1946/71 ...	61,200 0 0	—	51,200 0 0	9,975 0 0
	£2,424,311 0 0	£108,700 8 5	£863,348 8 11	£950,938 15 9
Interest Accrued	—	538 2 0	4,793 17 2	6,372 19 2
	£2,424,311 0 0	£109,238 10 5	£868,142 6 1	£957,311 14 11

Johannesburg,
24th April, 1940.

Commission.

Redemption Fund as at 31st December, 1939.

Loan No. 6. £2,500,000 3½% Local Registered Stock, 1959/64.	Loan No. 7. £2,000,000 3½% Local Registered Stock, 1956/66.	Loan No. 8. £2,000,000 3½% Local Registered Stock, 1957/67.	Loan No. 9. £2,000,000 3½% Local Registered Stock, 1959/64.	Loan No. 10. (Not yet raised.)	Totals.
—	—	—	—	—	£96,889 18 8
£4,500 0 0	—	—	—	—	220,023 0 0
53,721 15 9	£17,000 0 0	£3,518 13 3	—	£193 14 10	593,597 7 2
42,039 14 2	—	—	—	—	42,039 14 2
19,400 0 0	47,145 4 10	—	—	—	319,362 8 7
60,043 0 0	21,922 0 0	26,432 5 0	£1,072 10 0	—	296,951 0 0
62,540 7 8	45,297 18 10	45,785 0 4	18,979 6 0	—	434,275 15 2
—	—	—	—	—	328,265 0 0
—	—	—	—	—	61,175 0 0
£242,244 17 7	£131,365 3 8	£75,735 18 7	£20,051 16 0	£193 14 10	£2,392,579 3 9
1,233 11 1	956 1 5	465 13 2	183 16 3	1 5 2	14,545 5 5
£243,478 8 8	£132,321 5 1	£76,201 11 9	£20,235 12 3	£195 0 0	£2,407,124 9 2

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Electricity Supply Commission.

Redemption Fund Account for the Year ended 31st December, 1939.

	Loan No. 3. £500,000 4½% Local Registered Stock, 1953/63.	Loan No. 4. £2,500,000 4½% Local Registered Stock, 1953.	Loan No. 5. £6,750,000 3½% Local Registered Stock, 1954/64.	Loan No. 6. £2,500,000 3½% Local Registered Stock, 1959/64.	Loan No. 7. £2,000,000 3½% Local Registered Stock, 1956/66.	Loan No. 8. £2,000,000 3½% Local Registered Stock, 1957/67.	Loan No. 9. £2,000,000 3½% Local Registered Stock, 1959/64.	Loan No. 10. (Not yet raised.)	Totals.
Cr.									
By Balance at 31st December, 1938, brought forward—									
Natal Central Undertaking	£293 0 9	£14,286 9 4	£345,107 11 11	—	£4,402 19 8	£317 0 10	£8 19 0	—	£364,416 1 6
Witbank Undertaking	484 9 0	497,773 2 9	183,050 17 2	—	6,047 18 0	362 9 2	—	—	637,718 16 1
Cape Town Undertaking	61,752 13 7	28,203 6 3	176,380 5 8	—	1,331 1 11	83 16 2	127 13 9	—	267,878 17 4
Durban Undertaking	27,620 5 6	189,172 2 3	62,675 6 4	—	292 7 4	1,614 2 3	—	—	231,374 3 8
Sabie Undertaking	—	33,853 3 2	11,172 1 4	—	—	—	—	—	45,025 4 6
Klip Generating Station Undertaking	—	—	—	£155,652 4 7	55,625 18 6	14,449 14 2	—	—	225,727 17 3
Rand Extension Undertaking	—	—	—	15,713 3 8	2,098 12 0	2,074 11 6	878 17 5	—	20,765 4 7
Head Office	—	1,387 17 5	5,426 14 8	—	10,493 2 9	—	—	—	17,307 14 10
	£90,150 8 10	£764,676 1 2	£783,812 17 1	£171,365 8 3	£80,292 0 2	£18,901 14 1	£1,015 10 2	—	£1,910,213 19 9
„ Amounts Contributed during the Year out of Revenue—									
Natal Central Undertaking	£53 18 0	£3,401 9 9	£75,099 16 0	—	£4,278 16 6	£1,529 15 11	£216 5 0	£18 18 7	£84,593 19 9
Witbank Undertaking	93 9 1	37,794 17 6	17,900 8 1	—	4,592 0 11	2,288 5 8	98 11 9	—	62,767 13 0
Cape Town Undertaking	11,198 11 3	6,472 2 9	37,131 9 9	—	1,175 2 9	1,298 19 5	2,012 14 11	21 4 4	59,310 5 2
Durban Undertaking	4,287 13 8	19,801 7 8	8,002 15 7	—	472 15 7	7,931 9 7	475 17 4	3 0 4	40,974 19 9
Sabie Undertaking	—	2,643 7 9	882 6 8	—	—	—	—	—	3,525 14 5
Klip Generating Station Undertaking	—	—	—	£58,978 4 4	30,213 5 1	36,400 6 0	13,560 0 6	—	139,151 15 11
Rand Extension Undertaking	—	—	—	5,850 4 8	1,759 6 2	6,260 2 5	2,487 19 5	103 15 5	16,461 8 1
Head Office	—	166 9 8	2,761 13 8	—	5,898 19 0	—	19 1 7	—	8,846 3 11
	£15,633 12 0	£70,279 15 1	£141,778 9 9	£64,828 9 0	£48,390 6 0	£55,708 19 0	£18,870 10 6	£146 18 8	£415,637 0 0
„ Net Proceeds of Sales of Fixed Property—									
Witbank Undertaking	—	£632 14 5	—	—	—	—	—	—	£632 14 5
Sabie Undertaking	—	88 19 0	—	—	—	—	—	—	88 19 0
	—	£721 13 5	—	—	—	—	—	—	£721 13 5
„ Net Interest Earned on Investments, after Deducting Amounts Appropriated in Reduction of Premiums on Investments Purchased—									
Natal Central Undertaking	£10 5 1	£642 1 7	£14,093 5 2	—	£214 19 0	£32 3 7	£2 3 5	—	£14,999 17 10
Witbank Undertaking	16 18 10	20,992 11 6	7,135 4 6	—	282 8 5	45 5 11	3 5	—	28,472 12 7
Cape Town Undertaking	2,161 7 1	1,263 6 9	7,185 16 6	—	64 13 10	20 10 1	32 1 3	—	10,727 15 6
Durban Undertaking	966 14 0	8,070 15 11	2,472 8 0	—	17 6 11	172 2 0	6 17 6	—	11,706 4 4
Sabie Undertaking	—	1,429 0 6	432 4 7	—	—	—	—	—	1,861 5 1
Klip Generating Station Undertaking	—	—	—	£6,540 14 6	2,421 4 1	1,033 14 5	146 7 8	—	10,142 0 8
Rand Extension Undertaking	—	—	—	655 13 8	98 13 1	152 11 2	69 15 2	—	976 13 1
Head Office	—	59 11 9	246 6 1	—	459 14 10	—	2 8	—	765 15 4
	£3,155 5 0	£32,457 8 0	£31,570 4 10	£7,196 8 2	£3,559 0 2	£1,456 7 2	£257 11 1	—	£79,652 4 5
Grand Total	£108,939 5 10	£868,134 17 8	£957,161 11 8	£243,390 5 5	£132,241 6 4	£76,067 0 3	£20,143 11 9	£146 18 8	£2,406,224 17 7
Dr.									
To Balance as per Balance Sheet—									
Natal Central Undertaking	£357 3 10	£18,330 0 8	£434,305 13 1	—	£8,896 15 2	£1,879 0 4	£227 7 5	£18 18 7	£464,014 19 1
Witbank Undertaking	594 16 11	557,193 6 2	208,086 9 9	—	10,922 7 4	2,696 0 9	98 15 2	—	779,591 16 1
Cape Town Undertaking	75,112 11 11	35,938 15 9	220,697 11 11	—	2,570 18 6	1,403 5 8	2,172 9 11	21 4 4	337,916 18 0
Durban Undertaking	32,874 13 2	217,044 5 10	73,150 9 11	—	782 9 10	9,717 13 10	482 14 10	3 0 4	334,055 7 9
Sabie Undertaking	—	38,014 10 5	12,486 12 7	—	—	—	—	—	50,501 3 0
Klip Generating Station Undertaking	—	—	—	£221,171 3 5	88,260 7 8	51,883 14 7	13,706 8 2	—	375,021 13 10
Rand Extension Undertaking	—	—	—	22,219 2 0	3,956 11 3	8,487 5 1	3,436 12 0	103 15 5	38,203 5 9
Head Office	—	1,613 18 10	8,434 14 5	—	16,851 16 7	—	19 4 3	—	26,919 14 1
	£108,939 5 10	£868,134 17 8	£957,161 11 8	£243,390 5 5	£132,241 6 4	£76,067 0 3	£20,143 11 9	£146 18 8	£2,406,224 17 7

A. E. HARTE, C.A. (S.A.), Chief Accountant.

We hereby certify that we are satisfied, both as to the correctness of the Accounts and Books of the Redemption Fund and as to the Maintenance of the Fund at the amount required by the Schedule to the Electricity Act, 1922, subject to the remarks contained in our report dated 15th May, 1940.

ALEX. AIKEN & CARTER,
B. HALSEY, Auditors

Electricity Supply

Dr. Reserve Fund Account for the

To	Expenditure during the Year on Replacements and Betterment		£103,128 7 4
	Natal Central Undertaking	£18,791 10 2	
	Witbank Undertaking	68,360 15 7	
	Cape Town Undertaking	9,112 7 3	
	Durban Undertaking	6,023 3 0	
	Rand Extension Undertaking	840 11 4	
<hr/>			
„	Balance as per Balance Sheet		1,389,351 8 4
	Natal Central Undertaking	543,028 9 0	
	Witbank Undertaking	252,725 13 10	
	Cape Town Undertaking	269,506 12 7	
	Durban Undertaking	151,755 19 3	
	Sabie Undertaking	10,846 13 8	
	Klip Generating Station Undertaking	147,267 14 2	
	Rand Extension Undertaking	14,220 5 10	
<hr/>			
			<u>£1,492,479 15 8</u>

Commission.

Year ended 31st December, 1939.

Cr.

By	Balance at 31st December, 1938, brought forward		£1,255,223 12 3
	Natal Central Undertaking	£491,854 0 10	
	Witbank Undertaking	271,534 6 10	
	Cape Town Undertaking	252,678 10 10	
	Durban Undertaking	132,330 0 11	
	Sabie Undertaking	9,851 6 10	
	Klip Generating Station Undertaking	88,739 0 0	
	Rand Extension Undertaking	8,236 6 0	
<hr/>			
„	Amounts set aside during the Year as per Revenue Accounts		185,211 4 3
	Natal Central Undertaking	50,000 0 0	
	Witbank Undertaking	40,000 0 0	
	Cape Town Undertaking	14,000 0 0	
	Durban Undertaking	20,000 0 0	
	Sabie Undertaking	600 0 0	
	Klip Generating Station Undertaking	54,199 10 2	
	Rand Extension Undertaking	6,411 14 1	
<hr/>			
„	Other Contributions		1,787 9 7
„	Interest Earned on Investments		50,257 9 7
	Interest earned	52,817 7 0	
	Less—Premium on Investments written off	2,559 17 5	
<hr/>			
			<u>£1,492,479 15 8</u>

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Electricity Supply

NATAL CENTRAL

Revenue Account for the Year

Dr.

Generation of Electricity.			
To Operation—			
Fuel	£118,913	4	6
Water, Oil, Waste and Stores	1,721	1	4
Salaries and Wages	21,144	11	10
Other Expenses	70	12	2
„ Maintenance—			
Stores	9,867	1	0
Salaries and Wages	12,699	0	7
Other Expenses	1,475	12	5
	£165,891	3	10
„ Electricity Purchased	309	14	5
„ Electricity Interchanged	1,572	13	5
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores	4,752	12	1
Salaries and Wages	19,760	5	10
Other Expenses	3,208	17	3
	27,721	15	2
General Expenses.			
„ Local Administration and Technical Management	10,167	6	4
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, Payment to Durban Undertaking under Agreement, etc.)	13,976	16	6
„ Investigations and Development Expenses	65	10	0
„ Head Office Administration and General Expenses, including Publicity	8,250	8	8
„ Engineering Expenses	4,068	8	3
	36,528	9	9
„ Deferred Payment Scheme, including Propaganda and Showroom Expenses	364	2	11
	232,387	19	6
„ Interest	155,167	0	1
„ Redemption Fund	84,598	19	9
„ Instalments paid on Volksrust Municipality Loan	1,152	2	1
„ Amount set aside to Reserve Fund	50,000	0	0
„ Balance carried down	1,239	6	2
	£524,545	7	7
To Balance as per Balance Sheet	£30,822	0	8
	£30,822	0	8

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
24th April, 1940.

Commission.

UNDERTAKING.

ended 31st December, 1939.

Cr.

By Sales of Electricity—				
Traction Supplies	£395,575	7	1	
Bulk Supplies	78,767	9	2	
Industrial Supplies	26,612	1	7	
Domestic and Lighting Supplies	19,433	1	10	
Electricity Interchanged	17	10	1	
	£520,405	9	9	
„ Deferred Payment Scheme				145 3 2
„ Other Revenue				3,994 14 8
				£524,545 7 7
By Balance at 31st December, 1938, brought forward	£29,582	14	6	
„ Balance brought down	1,239	6	2	
	£30,822	0	8	

Referred to in our Report of 15th May, 1940.

 ALEX. AIKEN & CARTER, }
 B. HALSEY, } Auditors.

Electricity Supply

WITBANK

Dr. Revenue Account for the Year

Generation of Electricity.				
To Operation—				
Fuel	£68,582	8	8	
Water, Oil, Waste and Stores	6,734	17	3	
Salaries and Wages	28,783	12	9	
Other Expenses	1,164	18	0	
„ Maintenance—				
Stores	13,709	19	3	
Salaries and Wages	17,317	1	11	
Other Expenses	12,826	5	0	
				£149,119 2 10
„ Electricity Purchased				125,490 15 8
Distribution of Electricity.				
„ Operation and Maintenance—				
Stores	1,500	13	9	
Salaries and Wages	3,959	8	4	
Other Expenses	720	14	7	
				6,180 16 8
General Expenses.				
„ Local Administration and Technical Management ...	8,540	19	5	
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	8,816	5	9	
„ Investigations and Development Expenses	104	6	0	
„ Administration, Engineering and General Expenses of Operating Party (The Victoria Falls and Transvaal Power Company, Limited)	7,000	0	0	
„ Head Office Administration and General Expenses, including Publicity	6,450	11	9	
„ Engineering Expenses	3,180	17	9	
				34,093 0 8
„ Deferred Payment Scheme, including Propaganda and Showroom Expenses				275 18 11
				315,159 14 9
„ Interest	106,097	14	5	
„ Redemption Fund	62,767	13	0	
„ Amount set aside to Reserve Fund	40,000	0	0	
„ Balance carried down	3,671	14	10	
				£527,696 17 0
To Balance as per Balance Sheet	£33,605	14	2	
				£33,605 14 2

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
24th April, 1940.

Account No. 4.

Commission.

UNDERTAKING.

ended 31st December, 1939.

Cr.

By Sales of Electricity—					
Traction Supplies	£147,733	15	4		
Bulk Supplies	269,654	18	8		
Industrial Supplies	96,757	0	2		
Domestic and Lighting Supplies	7,200	7	2		
				£521,346	1 4
„ Deferred Payment Scheme					788 10 1
„ Other Revenue					5,562 5 7
					£527,696 17 0
By Balance at 31st December, 1938, brought forward ...	£29,933	19	4		
„ Balance brought down	3,671	14	10		
					£33,605 14 2

Referred to in our Report of 15th May, 1940.

ALEX. AIKEN & CARTER, }
B. HALSEY, } Auditors.

Electricity Supply

CAPE TOWN

Revenue Account for the Year

Dr.

Generation of Electricity.			
To Proportion of Pooled Costs ...	...	...	£176,821 9 0
(As per attached Statement.)			
„ Adjustment of redemption charges in respect of loans raised by City of Cape Town ...	...	...	122 19 4
„ Other Operation and Maintenance Costs ...	...	...	2,091 1 2
			£179,035 9 6
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores ...	...	...	4,323 3 6
Salaries and Wages ...	...	...	15,960 15 6
Other Expenses ...	...	...	3,199 4 10
			23,483 3 10
General Expenses.			
„ Local Administration and Technical Management ...	...	...	11,167 15 5
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.) ...	...	...	10,919 16 6
„ Head Office Administration and General Expenses, including Publicity ...	...	...	5,893 3 3
„ Engineering Expenses ...	...	...	2,906 0 3
			30,886 15 5
Less—Charged to Pooled Costs ...	...	...	2,908 16 1
			27,977 19 4
„ Deferred Payment Scheme, including Propaganda and Showroom Expenses ...	...	...	3,744 3 0
			234,240 15 8
„ Interest ...	...	...	97,502 12 0
„ Redemption Fund ...	...	...	59,310 5 2
„ Instalments on Caledon Municipality Loan ...	...	...	576 4 4
„ Amount set aside to Reserve Fund ...	...	...	14,000 0 0
			171,389 1 6
Less—Charged to Pooled Costs ...	...	...	51,088 2 10
			120,300 18 8
„ Balance carried down ...	...	...	332 15 9
			£354,874 10 1
To Balance as per Balance Sheet ...	...	...	£4,797 3 5
			£4,797 3 5

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
24th April, 1940.

Commission.

UNDERTAKING.

ended 31st December, 1939.

Cr.

By Sales of Electricity—			
Traction Supplies ...	...	...	£158,130 17 8
Bulk Supplies ...	...	...	39,081 0 6
Industrial Supplies ...	...	...	93,950 8 2
Domestic and Lighting Supplies ...	...	...	58,958 15 5
			£350,121 1 9
„ Deferred Payment Scheme ...	...	...	3,915 3 3
„ Other Revenue ...	...	...	1,872 2 2
Less—Credited to Pooled Costs ...	...	...	1,033 17 1
			838 5 1
By Balance at 31st December, 1938, brought forward ...			
„ Balance brought down ...	...	...	£4,464 7 8
			332 15 9
			£4,797 3 5

Referred to in our Report of 15th May, 1940.

ALEX. AIKEN & CARTER, }
B. HALSEY, } Auditors.

Electricity Supply Commission

Dr. Statement of Amounts Charged to Pooled Costs during the

Pooled Generation of Electricity.							
To Operation and Maintenance—							
Fuel	...	...	...	...	...	£293,413	11 3
Water, Oil, Waste and Stores	...	...	...	...	...	12,096	5 4
Salaries, Wages and Other Expenses	...	...	...	...	...	67,794	9 4
						£373,304	5 11
„ General Expenses (including Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	...	...	...	...	...	10,204	17 9
„ Interest	...	...	...	...	...	73,364	3 9
„ Redemption Fund	...	...	...	...	...	98,150	14 5
„ Reserve Fund	...	...	...	...	...	2,770	13 6
						£557,794	15 4

Cape Town,
24th April, 1940.

and City of Cape Town.

Year ended 31st December, 1939, and Allocation thereof. Cr.

By Allocation of Pooled Costs in terms of Agreement—							
Electricity Supply Commission	...	...	...	...	...	£176,821	9 0
City of Cape Town	...	...	...	...	...	379,129	3 8
						£555,950	12 8
„ Sundry Revenue	...	...	...	...	...		1,844 2 8
							£557,794 15 4

GEO. H. SWINGLER,
Manager of the Pooled Stations.

Electricity Supply

DURBAN

Dr. Revenue Account for the Year

Generation of Electricity.			
To Operation—			
Fuel	£130,556	0	3
Water, Oil, Waste and Stores	1,891	2	9
Salaries and Wages	16,287	6	3
Other Expenses	1,920	17	7
„ Maintenance—			
Stores	8,294	10	11
Salaries and Wages	14,648	3	6
Other Expenses	1,387	5	2
			£174,985 6 5
„ Operation and Maintenance: Alice Street Power Station			6,585 16 4
„ Electricity Purchased			3,496 2 9
„ Electricity Interchanged			17 10 1
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores	2,228	7	9
Salaries and Wages	3,279	5	10
Other Expenses	798	11	5
			6,306 5 0
General Expenses.			
„ Local Administration and Technical Management ...	5,544	14	10
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	8,004	0	9
„ Investigations and Development Expenses	28	5	5
„ Head Office Administration and General Expenses, including Publicity	4,950	5	2
„ Engineering Expenses	2,441	0	11
			20,968 7 1
„ Deferred Payment Scheme, including Propaganda and Showroom Expenses			173 2 5
			212,532 10 1
„ Interest			61,427 10 8
„ Redemption Fund			40,974 19 9
„ Sinking Fund			207 12 0
„ Amount set aside to Reserve Fund			20,000 0 0
			£335,142 12 6
			£335,142 12 6
To Balance brought down			£222 16 0
„ Balance as per Balance Sheet			15,149 7 2
			£15,372 3 2
			£15,372 3 2

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
24th April, 1940.

Commission.

UNDERTAKING.

ended 31st December, 1939.

Cr.

By Sales of Electricity—				
Bulk Supplies	£293,288	8	7	
Industrial Supplies	21,049	4	5	
Domestic and Lighting Supplies	15,806	1	7	
Electricity Interchanged	1,572	13	5	
				£331,716 8 0
„ Other Revenue				3,203 8 6
„ Balance carried down				222 16 0
				£335,142 12 6
				£335,142 12 6
By Balance at 31st December, 1938, brought forward ...				£15,372 3 2
				£15,372 3 2
				£15,372 3 2

Referred to in our Report of 15th May, 1940.

ALEX. AIKEN & CARTER, }
B. HALSEY, } Auditors.

Electricity Supply

SABIE

Dr. Revenue Account for the Year

Generation of Electricity.					
To Operation—					
Water, Oil, Waste and Stores	...	...	...	£64	15 10
Salaries and Wages	...	...	...	1,861	13 7
Other Expenses	...	...	...	4	0
,, Maintenance—					
Stores	...	...	...	439	7 9
Salaries and Wages	...	...	...	270	14 9
Other Expenses	...	...	...	155	18 1
				£2,792	14 0
Distribution of Electricity.					
,, Operation and Maintenance—					
Stores	...	...	...	168	17 1
Salaries and Wages	...	...	...	332	2 11
Other Expenses	...	...	...	310	9 11
				811	9 11
General Expenses.					
,, Local Administration and Technical Management					
General Expenses (including Maintenance of Quarters, Insurance, Pension Fund Contributions, etc.)	...	...	...	326	13 11
Head Office Administration and General Expenses, including Publicity	...	...	...	707	3 7
Engineering Expenses	...	...	...	348	14 5
				1,754	5 4
,, Interest					
Redemption Fund	...	...	...	5,358	9 3
Amount set aside to Reserve Fund	...	...	...	4,222	13 5
				3,525	14 5
				600	0 0
				£13,706	17 1
				£249	16 1
				812	4 0
				£1,062	0 1
				£1,062	0 1

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
24th April, 1940.

Commission.

UNDERTAKING.

ended 31st December, 1939.

Cr.

By Sales of Electricity—					
Mining Supplies	...	...	...	£13,457	1 0
,, Balance carried down					
				249	16 1
By Balance at 31st December, 1938, brought forward					
				£1,062	0 1
				£1,062	0 1
				£1,062	0 1

Referred to in our Report of 15th May, 1940.

ALEX. AIKEN & CARTER, }
B. HALSEY, } Auditors.

Electricity Supply

KLIP GENERATING

Dr. Revenue Account for the Year

Generation of Electricity.

To Operation—					
Fuel	...	...	...	...	£314,097 19 5
Water, Oil, Waste and Stores	...	...	...	...	6,952 0 3
Salaries and Wages	...	...	...	...	41,689 4 9
Other Expenses	...	...	...	...	5,066 19 4
„ Maintenance—					
Stores	...	...	...	...	11,933 11 2
Salaries and Wages	...	...	...	...	19,986 12 5
Other Expenses	...	...	...	...	8,395 12 2
					£408,121 19 6

General Expenses.

„ Local Administration and Technical Management	...	...	...	...	8,304 10 1
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	...	...	...	...	9,645 15 0
„ Administration, Engineering and General Expenses of Operating Party (The Victoria Falls and Transvaal Power Company, Limited)	...	...	...	...	15,259 5 1
„ Head Office Administration and General Expenses including Publicity	...	...	...	...	6,155 7 4
„ Engineering Expenses	...	...	...	...	3,035 6 1
					42,400 3 7
					450,522 3 1
„ Interest	...	...	...	...	179,197 4 10
„ Redemption Fund	...	...	...	...	139,151 15 11
„ Provision for Repayment of Amounts Outstanding (Rand Water Board)	...	...	...	...	6,024 5 4
„ Amount set aside to Reserve Fund	...	...	...	...	54,199 10 2
					£829,094 19 4

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
24th April, 1940.

Commission.

STATION UNDERTAKING.

ended 31st December, 1939.

Cr.

By Sales of Electricity—

Bulk Supplies	...	...	...	...	£825,018 12 2
„ Other Revenue	...	...	...	...	4,076 7 2

Referred to in our Report of 15th May, 1940.

ALEX. AIKEN & CARTER, }
B. HALSEY, } Auditors.

Electricity Supply

RAND EXTENSION

Dr. Revenue Account for the Year

To Insurance	£100	8	4	
„ Head Office Administration and General Expenses, including Publicity	582	18	3	
„ Engineering Expenses	287	8	10	
		£970	15	5
„ Interest		22,040	18	3
„ Redemption Fund		16,461	8	1
„ Amount set aside to Reserve Fund		6,411	14	1
		£45,884	15	10
		£45,884	15	10

A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
24th April, 1940.

Commission.

UNDERTAKING.

ended 31st December, 1939.

Cr.

By Amount recovered from The Victoria Falls and Transvaal Power Company, Limited				£45,884 15 10
				£45,884 15 10
				£45,884 15 10

Referred to in our Report of 15th May, 1940.

ALEX. AIKEN & CARTER, }
B. HALSEY, } Auditors.

INDEX TO ANNEXURE " B " (STATISTICAL AND OTHER STATEMENTS).

	Pages.
Summary of Principal Plant and Equipment installed at the Commission's several Undertakings as at 31st December, 1939 ...	61-63
Summary of Principal Plant and Equipment in course of installation or on order as at 31st December, 1939	64
Statement showing price or rent of land or rights or interests in or over land or other property acquired or hired by the Commission during 1939	65-66
Units Sold to all consumers during the past fifteen years ...	67
Distribution of Units Sold during 1939	67
Power Station Statistics, 1939	68
Particulars of Coal used at the Commission's Steam-raising Power Stations during 1939	68

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ANNEXURE " B. "

Electricity Supply Commission.

STATEMENT No. 1.

Summary of principal plant and equipment installed at the Commission's several Undertakings as at 31st December, 1939:—

POWER STATIONS.

Caledon (Cape Town Undertaking)	Oil.
Colenso (Natal Central Undertaking)	Steam.
Congella (Durban Undertaking)	Steam.
Klip	Steam.
Margate (Durban Undertaking)	Oil.
Sabie	Hydro.
Salt River (Cape Town Undertaking)	Steam.
Scottburgh (Durban Undertaking)	Oil.
Umkomaas (Durban Undertaking)	Oil.
Uvongo (Durban Undertaking)	Oil.
Volksrust (Natal Central Undertaking)	Oil.
Witbank	Steam.

BOILER PLANT.

Power Station.	No. of Boilers.	Normal Rating of each Boiler. Lbs. of steam per hour.	Total Rating of all Boilers. Lbs. of steam per hour.	Pressure. Lbs. per square inch.
Colenso	12	60,000	720,000	290
Congella	{ 6 4	{ 60,000 100,000 }	760,000	{ 275 300
Klip	22	180,000	3,960,000	390
Salt River	{ 2 6	{ 60,000 100,000 }	720,000	{ 270 425
Witbank	20	70,000	1,400,000	225
Totals	72		7,560,000	

ANNEXURE " B. "

Electricity Supply Commission.

STATEMENT No. 1.

Summary of principal plant and equipment installed at the Commission's several Undertakings as at 31st December, 1939:—

POWER STATIONS.

Caledon (Cape Town Undertaking)	Oil.
Colenso (Natal Central Undertaking)	Steam.
Congella (Durban Undertaking)	Steam.
Klip	Steam.
Margate (Durban Undertaking)	Oil.
Sabie	Hydro.
Salt River (Cape Town Undertaking)	Steam.
Scottburgh (Durban Undertaking)	Oil.
Umkomaas (Durban Undertaking)	Oil.
Uvongo (Durban Undertaking)	Oil.
Volksrust (Natal Central Undertaking)	Oil.
Witbank	Steam.

BOILER PLANT.

Power Station.	No. of Boilers.	Normal Rating of each Boiler. Lbs. of steam per hour.	Total Rating of all Boilers. Lbs. of steam per hour.	Pressure. Lbs. per square inch.
Colenso	12	60,000	720,000	290
Congella	{ 6 4	{ 60,000 100,000	760,000	{ 275 300
Klip	22	180,000	3,960,000	390
Salt River	{ 2 6	{ 60,000 100,000	720,000	{ 270 425
Witbank	20	70,000	1,400,000	225
Totals	72		7,560,000	

GENERATING PLANT (EXCLUDING HOUSE SETS).

Power Station.	No. of Generators.	Normal Rating of each Generator.		Rating of Generator House.		Voltage of Generation.
		Kilo-watts.	Kilovolt Amperes.	Kilo-watts.	Kilovolt Amperes.	
Caledon	{ 1 2	135 50	— —	235	—	500/250 D.C.
Colenso	5	12,000	13,500	60,000	67,500	6,600 A.C.
Congella	{ 2 3 1	6,000 12,000 20,000	7,500 15,000 25,000	98,000	122,500	{ 6,600 A.C. 6,600 A.C. 33,000 A.C.
Klip ...	11	33,000	41,250	363,000	453,750	33,000 A.C. 10,500 A.C.
Margate	{ 1 1	93 73	110 86	166	196	380/220 A.C.
Sabie ...	3	450	600	1,350	1,800	3,300 A.C.
Salt River	{ 3 3	10,000 20,000	11,000 25,000	90,000	108,000	{ 12,000 A.C. 33,000 A.C.
Scottburgh	1	16	20	16	20	380/220 A.C.
Umkomaas	2	32	38	64	76	380/220 A.C.
Uvongo	1	25	30	25	30	380/220 A.C.
Volksrust	2	250	300	500	600	6,600 A.C.
Witbank	5	20,000	23,500	100,000	117,500	6,600 A.C.
Totals	48			713,356	871,972	

TRANSMISSION LINES AND CABLES.

Undertaking.	88,000 volts. Route Miles.	80,000 volts. Route Miles.	40,000 volts. Route Miles.	33,000 volts. Route Miles.	23,000, 21,000, 20,000 volts. Route Miles.	12,000, 11,000 volts. Route Miles.	6,000, 3,000, 2,200, 2,000 volts. Route Miles.	380/220 volts. Route Miles.	Total Route Miles.
Cape Town ...	—	—	—	211	—	52	122	129	514
Durban (South Coast)	—	—	—	58	—	15	27	34	134
Natal Central ...	546	—	—	33	33	81	145	63	901
Rand Extension ...	—	253	68	—	12	—	15	1	349
Sabie ...	—	—	—	—	7	—	—	—	7
Witbank ...	—	—	22	—	110	—	18	29	179
Totals ...	546	253	90	302	162	148	327	256	2,084

STATIC TRANSFORMERS AT POWER STATIONS AND SUB-STATIONS.

(Step-up and Step-down, including Spares.)

Undertaking.						Capacity. Kilovolt Amperes.
Cape Town ...	...	...	...	...	...	127,817
Durban ...	...	...	...	...	...	69,755
Klip ...	...	...	...	...	...	548,333
Natal Central ...	...	...	...	...	...	209,075
Rand Extension ...	...	...	...	...	...	134,800
Reef ...	...	...	...	...	...	60,295
Sabie ...	...	...	...	...	...	3,640
Witbank ...	...	...	...	...	...	182,296
Total ...	...	...	...	...	...	1,336,011

CONVERTING SUB-STATIONS.

Type.			Number of Sub-stations.	Number of Units.	Rating.
Motor Generators ...	...	...	13	23	46,000 kW.
Rotary Convertors ...	...	...	7	14	28,000 kW.
Rectifiers ...	...	...	25	40	*64,337 kVA.
				12	†10,500 kVA.
Totals ...	...	...	45	89	—

* Forward.

† Inverted.

GENERATING PLANT (EXCLUDING HOUSE SETS).

Power Station.	No. of Generators.	Normal Rating of each Generator.		Rating of Generator House.		Voltage of Generation.
		Kilo-watts.	Kilovolt Amperes.	Kilo-watts.	Kilovolt Amperes.	
Caledon	{ 1	135	—	235	—	500/250 D.C.
	{ 2	50	—			
Colenso	... 5	12,000	13,500	60,000	67,500	6,600 A.C.
Congella	{ 2	6,000	7,500	98,000	122,500	6,600 A.C.
	{ 3	12,000	15,000			6,600 A.C.
	{ 1	20,000	25,000			33,000 A.C.
Klip ...	{ 1	30,000	37,500	363,000	453,750	33,000 A.C.
	{ 11	33,000	41,250			10,500 A.C.
Margate	{ 1	93	110	166	196	380/220 A.C.
	{ 1	73	86			
Sabie ...	... 3	450	600	1,350	1,800	3,300 A.C.
Salt River	{ 3	10,000	11,000	90,000	108,000	12,000 A.C.
	{ 3	20,000	25,000			33,000 A.C.
Scottburgh	... 1	16	20	16	20	380/220 A.C.
Umkomaas	... 2	32	38	64	76	380/220 A.C.
Uvongo	... 1	25	30	25	30	380/220 A.C.
Volksrust	... 2	250	300	500	600	6,600 A.C.
Witbank	... 5	20,000	23,500	100,000	117,500	6,600 A.C.
Totals	... 48			713,356	871,972	

TRANSMISSION LINES AND CABLES.

Undertaking.	88,000 volts. Route Miles.	80,000 volts. Route Miles.	40,000 volts. Route Miles.	33,000 volts. Route Miles.	22,000, 21,000, 20,000 volts. Route Miles.	12,000, 11,000 volts. Route Miles.	6,000, 5,000, 2,200, 2,000 volts. Route Miles.	380/220 volts. Route Miles.	Total Route Miles.
Cape Town ...	—	—	—	211	—	52	122	129	514
Durban (South Coast)	—	—	—	58	—	15	27	34	134
Natal Central	546	—	—	33	33	81	145	63	901
Rand Extension	—	253	68	—	12	—	15	1	349
Sabie ...	—	—	—	—	7	—	—	—	7
Witbank	—	—	22	—	110	—	18	29	179
Totals ...	546	253	90	302	162	148	327	256	2,084

STATIC TRANSFORMERS AT POWER STATIONS AND SUB-STATIONS.

(Step-up and Step-down, including Spares.)

Undertaking.						Capacity. Kilovolt Amperes.
Cape Town ...	...	...	...	...	...	127,817
Durban ...	...	...	...	...	...	69,755
Klip ...	...	...	...	...	...	548,333
Natal Central ...	...	...	...	...	...	209,075
Rand Extension ...	...	...	...	...	...	134,800
Reef ...	...	...	...	...	...	60,295
Sabie ...	...	...	...	...	...	3,640
Witbank ...	...	...	...	...	...	182,296
Total ...	...	...	...	...	...	<u>1,336,011</u>

CONVERTING SUB-STATIONS.

Type.				Number of Sub-stations.	Number of Units.	Rating.
Motor Generators ...	...	...	...	13	23	46,000 kW.
Rotary Convertors ...	...	...	...	7	14	28,000 kW.
Rectifiers ...	...	...	...	25	40	*64,337 kVA.
					12	†10,500 kVA.
Totals ...	...	...	...	45	89	—

* Forward.

† Inverted.

Electricity Supply Commission.

STATEMENT No. 2.

Summary of principal plant and equipment in course of installation or on order as at 31st December, 1939:—

BOILER PLANT.

Power Station.	Number of Boilers.	Capacity in lbs. of steam per hour (normal rating).			Pressure. lbs. sq. inch.
		Each.	Total.		
Congella ...	3 ...	200,000 ...	600,000 ...	625	
Klip ...	2 ...	180,000 ...	360,000 ...	390	
Vaal ...	6 ...	190,000 ...	1,154,000 ...	360	
			<u>2,114,000</u>		

GENERATING PLANT (EXCLUDING HOUSE SETS).

Power Station.	Number of Sets.	Capacity. Each.	Total.
Colenso ...	1 ...	25,000 kW. ...	25,000
Congella ...	1 ...	40,000 kW. ...	40,000
Klip ...	1 ...	33,000 kW. ...	33,000
Vaal ...	3 ...	33,000 kW. ...	99,000
			<u>179,000</u>

TRANSMISSION LINE AND CABLES.

	33,000 Volts. Route Miles.	11,000 Volts. Route Miles.	380/220 Volts. Route Miles.	Totals.
Overhead Lines ...	8	15	7	30

TRANSFORMERS.

(Step-up and Step-down.)

Total capacity in course of installation or on order ...	Kilovolt-Amperes.
...	390,093

CONVERTING SUB-STATIONS.

Type.	Number of Sub-stations.	Number of Sets.	Rating.
Mercury Arc Rectifiers ...	5 ...	7 ...	12,168 kVA. Forward

Electricity Supply Commission.

STATEMENT No. 2.

Summary of principal plant and equipment in course of installation or on order as at 31st December, 1939:—

BOILER PLANT.

Power Station.	Number of Boilers.	Capacity in lbs. of steam per hour (normal rating).			Pressure. lbs. sq. inch.
		Each.	Total.		
Congella ...	3 ...	200,000 ...	600,000 ...	625	
Klip ...	2 ...	180,000 ...	360,000 ...	390	
Vaal ...	6 ...	190,000 ...	1,154,000 ...	360	
			<u>2,114,000</u>		

GENERATING PLANT (EXCLUDING HOUSE SETS).

Power Station.	Number of Sets.		Capacity.		Total.
			Each.		
Colenso	1 ...	25,000 kW.	...	25,000
Congella	1 ...	40,000 kW.	...	40,000
Klip	1 ...	33,000 kW.	...	33,000
Vaal	3 ...	33,000 kW.	...	99,000
					<u>179,000</u>

TRANSMISSION LINE AND CABLES.

	33,000	11,000	380/220	Totals.
	Volts.	Volts.	Volts.	
	Route Miles.	Route Miles.	Route Miles.	
Overhead Lines ...	8	15	7	30

TRANSFORMERS.

(Step-up and Step-down.)

	Kilovolt-Amperes.
Total capacity in course of installation or on order ...	390,093

CONVERTING SUB-STATIONS.

Type.	Number of Sub-stations.	Number of Sets.	Rating.
Mercury Arc Rectifiers ...	5 ...	7 ...	12,168 kVA. Forward

Electricity Supply Commission

STATEMENT SHOWING THE PRICE OR RENT OF LAND OR RIGHTS OR INTERESTS IN OR OVER LAND OR OTHER PROPERTY ACQUIRED OR HIRED BY THE COMMISSION DURING THE YEAR 1939.

(See previous Annual Reports for Rights or Interests in or over Land Acquired prior to 1939.)

Area.			Farm or Lot.	District.	Title.	Purchase Price or Rental.	Acquired From.	Purpose for which Required.
Acres	Roods	Perches						
NATAL CENTRAL UNDERTAKING.								
			Dorpsgronden van Harrismith No. 131	Harrismith	Servitude of Right-of-way in Perpetuity	—	Harrismith Municipality	Power Conductors
			Spitzkop No. 68	Volkstrust	do.	£11 5 0	M. A. Meiring	do.
			do.	do.	do.	£6 10 0	P. W. B. Uys	do.
			do.	do.	do.	£8 15 0	M. J. Uys	do.
			do.	do.	do.	£10 5 0	W. L. van der Schyff	do.
			do.	do.	do.	£7 0 0	J. J. Fouche	do.
			Spitzkop No. 300	Wakkerstroom	do.	£48 0 0	D. M. Friend	do.
			Middel Plaats No. 916	Weenen	do.	£30 15 0	S. E. Wood, A. J. Kiel and E. L. B. Kerr	do.
			Lot 13 Blaauw Krantz	do.	do.	£6 15 0	Government of the Union of South Africa and M. B. Porrill	do.
31			Sub NGR ^a and Sub NGR ^b of Nolans Volens No. 2384	Klip River	Crown Grant in Perpetuity	—	Government of the Union of South Africa	Sub-station Site
			Baviaanskloof No. 16	Volkstrust	Servitude of Right-of-way in Perpetuity	£7 10 0	G. J. W. de Jager	Power Conductors
			do.	do.	do.	£7 10 0	J. J. de Jager	do.
			do.	do.	do.	£8 5 0	J. J. de Jager	do.
			Mocrd Kraal	Weenen	do.	£25 15 0	C. P. F. Marais	do.
			Rustvalei	Volkstrust	do.	£44 15 0	L. A. B. Johnstone	do.
			Townlands	Pietermaritzburg	do.	£35 0 0	Pietermaritzburg Corporation	do.
			Townlands of Martinus Wesselsstroom No. 276	Wakkerstroom	do.	£42 5 0	Wakkerstroom Village Council	do.
			Vaalkop and Dadelfontein No. 885	Pietermaritzburg	do.	£1 15 5	Estate of the late James Archbell	do.
			Rustvalei	Volkstrust	do.	£9 15 0	H. J. Oosthuizen	do.
			Boshoek	do.	do.	£21 5 0	M. E. C. J. Steenkamp	do.
			Townlands	do.	do.	—	Volkstrust Town Council	do.
			Townlands of Colenso	Colenso	do.	—	Colenso Town Board	Power Conductors and Water Pipe Line
WITBANK UNDERTAKING.								
			Joubertsrust No. 16	Witbank	Servitude of Right-of-way	—	Witbank Colliery, Ltd.	Power Conductors
DURBAN UNDERTAKING.								
3	2		Margate Township	Alfred	Purchase	£3,120 0 0	South Eastern Power Co. (Pty.), Ltd.	Power Station Site, etc.
CAPETOWN UNDERTAKING.								
50	—		Lot 95, Kempenville Estate	Cape	Purchase	£50 0 0	J. P. E. Maree	Sub-station Site
	14		Portion 3 of Lot CHL, Goodwood	do.	Grant	—	Citizens Housing League Utility Company	do.
34	—		Lot 196, Townend Estate	Goodwood	Purchase	£300 0 0	S. Jacobs	do.
34	—		Lot 690, Boston Township, Bellville	Cape	do.	£85 0 0	J. W. Sturk	do.
			Mulders Vlei, Stellenbosch	do.	Servitude of Right-of-way in Perpetuity	—	M. J. C. Starke	Power Conductors
			Blaauklip	Stellenbosch	do.	—	A. M. Potgieter	do.
RAND EXTENSION UNDERTAKING.								
			Zwartkoppies No. 43	Vereeniging	Servitude of Right-of-way in Perpetuity	1s. per annum	Rand Water Board	do.
			Blesbokfontein No. 60	do.	do.	£1 1 0 per annum	P. L. Smit	do.
			do.	do.	do.	£1 11 0 per annum	P. J. Schoeman	do.
			do.	do.	do.	£1 11 0 per annum	J. L. C. F. Jonker	do.
			do.	do.	do.	£1 4 0 per annum	D. P. Kloppers	do.
			do.	do.	do.	£1 15 0 per annum	G. J. van Aswegen	do.
			Hartebeestfontein No. 130 and Elandsheuvcl No. 123	Potchefstroom	do.	£14 4 9 per annum	A. M. D. Perrin	do.
			Elandsheuvcl No. 123	do.	do.	£54 10 0	W. P. Grobbelaar	do.
			do.	do.	do.	£5 12 0 per annum	A. S. Grimbeek	do.
			do.	do.	do.	£33 10 0	J. D. E. Grimbeek	do.
			Elandsheuvcl No. 123 and Wilgeboom No. 588	do.	do.	£70 15 0	E. J. A. Grimbeek	do.
			Townlands	do.	Servitude of Right-of-way	—	Government of the Union of South Africa	do.
			Houtpoort No. 309	Heidelberg	Servitude of Right-of-way in Perpetuity	—	Government of the Union of South Africa	do.
			Townlands	Potchefstroom	do.	£704 16 6	Potchefstroom Town Council	do.
			Rietfontein No. 163	do.	do.	17s. per annum	J. Wallach	do.
			Rietfontein No. 54	do.	do.	£2 4 0 per annum	Estate of the late F. J. van Eeden	do.
			Rietfontein No. 78	Klerksdorp	do.	£5 0 0	A. P. Combrink	do.
			do.	do.	do.	£1 17 0 per annum	C. J. Oosthuizen	do.
			Welgegend No. 38 and Buffelsdoorn No. 58	do.	do.	£8 16 0 per annum	J. H. van Ryneveld	do.
			Palmietfontein No. 29	do.	do.	—	Western Reefs Exploration and Development Co., Ltd.	do.
			do.	do.	do.	£38 13 0	H. E. Cato	do.
			do.	do.	do.	£8 0 0 per annum	J. W. Viljoen and others	do.
			Erven 49 and 50, Swart St., Klerksdorp	do.	do.	£30 0 0	C. J. Lauwrens	do.
			Rhenosterspruit No. 16	do.	do.	£2 16 9	Dominion Reefs (Klerksdorp), Ltd.	do.
			do.	do.	do.	£5 0 0	G. C. Erasmus	do.

Electricity Supply Commission

STATEMENT SHOWING THE PRICE OR RENT OF LAND OR RIGHTS OR INTERESTS IN OR OVER LAND OR OTHER PROPERTY ACQUIRED OR HIRED BY THE COMMISSION DURING THE YEAR 1939.

(See previous Annual Reports for Rights or Interests in or over Land Acquired prior to 1939.)

Area.			Farm or Lot.	District.	Title.	Purchase Price or Rental.	Acquired From.	Purpose for which Required.
Acres	Roods	Perches						
NATAL CENTRAL UNDERTAKING.								
			Dorpsgronden van Harrismith No. 131	Harrismith	Servitude of Right-of-way in Perpetuity	—	Harrismith Municipality	Power Conductors
			Spitzkop No. 68	Volksrust	do.	£11 5 0	M. A. Meiring	do.
			do.	do.	do.	£6 10 0	P. W. B. Uys	do.
			do.	do.	do.	£8 15 0	M. J. Uys	do.
			do.	do.	do.	£10 5 0	W. L. van der Schyff	do.
			do.	do.	do.	£7 0 0	J. J. Fouche	do.
			Spitzkop No. 300	Wakkerstroom	do.	£48 0 0	D. M. Friend	do.
			Middel Plaats No. 916	Weenen	do.	£30 15 0	S. E. Wood, A. J. Kiel and E. L. B. Kerr	do.
			Lot 13 Blaauw Krantz	do.	do.	£6 15 0	Government of the Union of South Africa and M. B. Porrill	do.
31			Sub NGR ¹ and Sub NGR ² of Nolans Volens No. 2384	Klip River	Crown Grant in Perpetuity	—	Government of the Union of South Africa	Sub-station Site
			Baviaanskloof No. 16	Volksrust	Servitude of Right-of-way in Perpetuity	£7 10 0	G. J. W. de Jager	Power Conductors
			do.	do.	do.	£7 10 0	J. J. de Jager	do.
			do.	do.	do.	£8 5 0	J. J. de Jager	do.
			Moerd Kraal	Weenen	do.	£25 15 0	C. P. F. Marais	do.
			Rustvalei	Volksrust	do.	£44 15 0	L. A. B. Johnstone	do.
			Townlands	Pietermaritzburg	do.	£35 0 0	Pietermaritzburg Corporation	do.
			Townlands of Martinus Wesselsstroom No. 276	Wakkerstroom	do.	£42 5 0	Wakkerstroom Village Council	do.
			Vaalkop and Dadelfontein No. 885	Pietermaritzburg	do.	£1 15 5	Estate of the late James Archbell	do.
			Rustvalei	Volksrust	do.	£9 15 0	H. J. Oosthuizen	do.
			Boshoek	do.	do.	£21 5 0	M. E. C. J. Steenkamp	do.
			Townlands	do.	do.	—	Volksrust Town Council	do.
			Townlands of Colenso	Colenso	do.	—	Colenso Town Board	Power Conductors and Water Pipe Line
WITBANK UNDERTAKING.								
			Joubertsrust No. 16	Witbank	Servitude of Right-of-way	—	Witbank Colliery, Ltd.	Power Conductors
DURBAN UNDERTAKING.								
3	2		Margate Township	Alfred	Purchase	£3,120 0 0	South Eastern Power Co. (Pty.), Ltd.	Power Station Site, etc.
CAPETOWN UNDERTAKING.								
50	—		Lot 95, Kempenville Estate	Cape	Purchase	£50 0 0	J. P. E. Maree	Sub-station Site
	14		Portion 3 of Lot CH1, Goodwood	do.	Grant	—	Citizens Housing League Utility Company	do.
34	—		Lot 196, Townend Estate	Goodwood	Purchase	£300 0 0	S. Jacobs	do.
34	—		Lot 690, Boston Township, Bellville	Cape	do.	£85 0 0	J. W. Sturk	do.
			Mulders Vlei, Stellenbosch	do.	Servitude of Right-of-way in Perpetuity	—	M. J. C. Starke	Power Conductors
			Blaauklip	Stellenbosch	do.	—	A. M. Potgieter	do.
RAND EXTENSION UNDERTAKING.								
			Zwartkoppies No. 43	Vereeniging	Servitude of Right-of-way in Perpetuity	1s. per annum	Rand Water Board	do.
			Blesbokfontein No. 60	do.	do.	£1 1 0 per annum	P. L. Smit	do.
			do.	do.	do.	£1 11 0 per annum	P. J. Schoeman	do.
			do.	do.	do.	£1 11 0 per annum	J. L. C. F. Jonker	do.
			do.	do.	do.	£1 4 0 per annum	D. P. Kloppers	do.
			do.	do.	do.	£1 15 0 per annum	G. J. van Aswegen	do.
			Hartebeestfontein No. 130 and Elandsheuveld No. 123	Potchefstroom	do.	£14 4 9 per annum	A. M. D. Perrin	do.
			Elandsheuveld No. 123	do.	do.	£54 10 0	W. P. Grobbelaar	do.
			do.	do.	do.	£5 12 0 per annum	A. S. Grimbeek	do.
			do.	do.	do.	£33 10 0	J. D. E. Grimbeek	do.
			Elandsheuveld No. 123 and Wilgeboom No. 588	do.	do.	£70 15 0	E. J. A. Grimbeek	do.
			Townlands	do.	Servitude of Right-of-way	—	Government of the Union of South Africa	do.
			Houtpoort No. 309	Heidelberg	Servitude of Right-of-way in Perpetuity	—	Government of the Union of South Africa	do.
			Townlands	Potchefstroom	do.	£704 16 6	Potchefstroom Town Council	do.
			Rietfontein No. 163	do.	do.	17s. per annum	J. Wallach	do.
			Rietfontein No. 54	do.	do.	£2 4 0 per annum	Estate of the late F. J. van Eeden	do.
			Rietfontein No. 78	Klerksdorp	do.	£5 0 0	A. P. Combrink	do.
			do.	do.	do.	£1 17 0 per annum	C. J. Oosthuizen	do.
			Welgegund No. 38 and Buffelsdoorn No. 58	do.	do.	£8 16 0 per annum	J. H. van Ryneveld	do.
			Palmietfontein No. 29	do.	do.	—	Western Reefs Exploration and Development Co., Ltd.	do.
			do.	do.	do.	£38 13 0	H. E. Cato	do.
			do.	do.	do.	£8 0 0 per annum	J. W. Viljoen and others	do.
			Erven 49 and 50, Swart St., Klerksdorp	do.	do.	£30 0 0	C. J. Lauwrens	do.
			Rhenosterspruit No. 16	do.	do.	£2 16 9	Dominion Reefs (Klerksdorp), Ltd.	do.
			do.	do.	do.	£5 0 0	G. C. Erasmus	do.

Acres.			Farm or Lot.	District.	Title.	Purchase Price or Rental.	Acquired From.	Purpose for which Required.
Acres	Roods	Perches						
			Rhenosterspruit No. 52	Klerksdorp	Servitude of Right-of-way in Perpetuity	£5 4 6 per annum	J. H. Koen	Power Conductors
			Townlands	do.	do.	£2 10 0	The Imperial Cold Storage and Supply Co., Ltd.	do.
			Wolverand No. 55 and Rietkuil No. 86	do.	do.	£9 7 6 per annum	B. Schwartz	do.
			Wolverand No. 55	do.	do.	17s. per annum	R. Rosin	do.
			do.	do.	do.	£3 2 0 per annum	D. P. Strydom	do.
			do.	do.	do.	£34 1 0	J. A. Campbell	do.
			do.	do.	do.	£34 1 0	G. M. Campbell	do.
			Nooitgedacht No. 53	do.	do.	9s. per annum	Ainsworth Limited	do.
			do.	do.	do.	£15 0 0	Western Reefs Exploration and Development Co., Ltd.	do.
			do.	do.	do.	£5 0 0	P. M. Lotz	do.
			do.	do.	do.	£5 0 0	C. H. van der Westhuizen	do.
			do.	do.	do.	£10 0 0	J. F. Pieterse	do.
			Nooitgedacht No. 261	Heidelberg	do.	£19 0 0 per annum	F. J. Meyer	do.
			do.	do.	do.	£6 10 0 per annum	Klip Nigel Estate and Gold Mining Co., Ltd.	do.
			Strathmore No. 15	Klerksdorp	do.	£4 5 0 per annum	I. D. Scott	do.
			Blinkpoort No. 353	Heidelberg	do.	£13 0 0 per annum	H. A. Lilienfeld and A. O. A. Osborn	do.
			Poortje No. 123	do.	do.	—	East Rand Consolidated, Ltd.	do.
			Driefontein No. 3	Johannesburg	do.	£47 10 0	S. Fisher	do.
			do.	do.	do.	£1 10 0 per annum	G. Carleton Jones	do.
			do.	do.	do.	£35 2 0	H. E. Mould	do.
			do.	do.	do.	£5 0 0	R. D. Millner	do.
			Zandfontein No. 1	do.	do.	£5 0 0	Union Estate Limited	do.
			do.	do.	do.	£15 10 0	M. Weber	do.
			do.	do.	do.	£2 13 0 per annum	S. J. Millner	do.
			Bergvale No. 1	Germiston	do.	£1 5 0 per annum	W. F. Tillet	do.
			do.	do.	do.	£1 9 0 per annum	Estate of the late M. A. Zoccola	do.
			Waterval No. 34	Johannesburg	do.	—	F. C. Gibson	do.
			Droogespruit No. 53	Potchefstroom	do.	£2 13 0 per annum	S. W. Brits	do.
			do.	do.	do.	£7 11 0 per annum	J. Taljaard	do.
			Mapaiskraal No. 9	Klerksdorp	do.	£25 0 0	C. R. Stainer	do.
			Rietspruit No. 52	Vereeniging	do.	£1 16 0 per annum	F. J. Muller	do.
			do.	do.	do.	£1 15 0 per annum	C. J. Muller	do.
			do.	do.	do.	£6 3 0 per annum	M. A. Muller	do.
			do.	do.	do.	£2 8 6 per annum	J. A. J. van der Merwe	do.
			do.	do.	do.	£1 12 0 per annum	P. H. V. Lamont	do.
			Klipfontein No. 29	do.	do.	—	African and European Investment Co., Ltd.	do.
			Hartebeestpoortje No. 97	Potchefstroom	do.	£3 7 0 per annum	H. P. Landman	do.
			do.	do.	do.	£5 0 0	A. C. van Deventer	do.
			do.	do.	do.	£3 15 0 per annum	D. C. Grobler	do.
			do.	do.	do.	£15 0 0	A. M., J. P. L., and P. G. van Deventer	do.
			do.	do.	do.	£45 0 0	G. J. J., A. M., and J. P. L. van Deventer	do.
			do.	do.	do.	£3 16 0 per annum	G. J. Landman and others	do.
			do.	do.	do.	£1 4 0 per annum	H. J. H. Loubser	do.
			Hartebeestfontein No. 584	do.	do.	£123 17 0	P. J. Grimbeek	do.
			Modderfontein No. 52	do.	do.	£25 6 0	Government of the Union of South Africa and P. S. J. van der Walt	do.
			do.	do.	do.	£5 2 0 per annum	L. Wolf	do.
			Modderfontein No. 45	Klerksdorp	do.	£12 0 0 per annum	A. A. S. and J. R. T. Leask and E. Bramley	do.
			Rietpoort No. 114	Potchefstroom	do.	£39 10 0	C. A. Bamberger	do.
			Frischgewaagd No. 92	do.	do.	£7 12 3 per annum	B. C. Brits and others	do.
			do.	do.	do.	£14 11 0 per annum	F. J. Pretorius	do.
			Eigenaarsfontein No. 116	do.	do.	£2 11 0 per annum	J. C. Kloppers	do.
			do.	do.	do.	£2 11 0	H. P. van Aswegen	do.
			do.	do.	do.	£3 5 3 per annum	M. S. and H. C. B. Ferreira	do.
			Wilgeboom No. 68	do.	do.	£4 0 0 per annum	R. van der Merwe	do.
			do.	do.	do.	£16 9 0 per annum	E. J. A. Grimbeek	do.
			Rooipoortje No. 19	do.	do.	£5 5 0 per annum	J. P. Gosen	do.
			do.	do.	do.	£5 0 0	J. P. L. van Deventer	do.
			do.	do.	do.	£5 11 0	M. P. Bezuidenhout	do.
			do.	do.	do.	£12 19 3	S. P. Bezuidenhout	do.
			Wonderboom No. 126	do.	do.	£1 15 0 per annum	M. M. H. Badenhorst	do.
			do.	do.	do.	£7 3 0 per annum	U. Pfister	do.
			Patriotsfontein No. 20	Vereeniging	Servitude of Right-of-way	£3 8 3 per annum	R. J. N. Brits	do.
			Holfontein No. 55	do.	do.	£1 10 0 per annum	Estate of the late S. J. P. van Zyl	do.
			Uitval No. 26	Krugersdorp	Servitude of Right-of-way in Perpetuity	£13 1 6 per annum	Western Areas, Limited	do.
			Elandslaagte No. 67	Klerksdorp	do.	£52 5 6	H. J. Badenhorst and H. C. W. V. van der Merwe	do.
			Wildebeestspan No. 40	Potchefstroom	do.	£2 5 6 per annum	C. P. Fick	do.
			Roodekraap No. 37	Klerksdorp	do.	£1 13 6	J. Motseunyane	do.
			Lots 9, 10 and 12, Edenburg Township	Johannesburg	do.	£90 0 0	Sisters of Charity of J.M. Mother-House Ghent	do.
			Bronkhorstfontein No. 30	Potchefstroom	do.	£2 2 6 per annum	M. P. C. Malan	do.
			Libanon No. 28 and Uitval No. 26	Krugersdorp	Surface Right Permits	—	Government of the Union of South Africa	do.
			Vlakfontein No. 8 and 65	Brakpan and Heidelberg	do.	—	do.	do.

KLIP POWER STATION UNDERTAKING.

141	444	112	Portion A of Springfield of Kookfontein No. 57 and Portion C of Beaconfield of Waldrift No. 92	Vereeniging	Purchase	£2,999 19 1	Estate of the late Donald McKay	Power Station Site
			Portion L ¹ of Waldrift No. 92 and L of Kookfontein No. 57	do.	Lease in Perpetuity	£24 0 0 per annum	do.	do.

Acres.			Farm or Lot.	District.	Title.	Purchase Price or Rental.	Acquired From.	Purpose for which Required.
Acres	Roods	Perches						
			Rhenosterspruit No. 52	Klerksdorp	Servitude of Right-of-way in Perpetuity	£5 4 6 per annum	J. H. Koen	Power Conductors
			Townlands	do.	do.	£2 10 0	The Imperial Cold Storage and Supply Co., Ltd.	do.
			Wolverand No. 55 and Rietkuil No. 86	do.	do.	£9 7 6 per annum	B. Schwartz	do.
			Wolverand No. 55	do.	do.	17s. per annum	R. Rosin	do.
			do.	do.	do.	£3 2 0 per annum	D. P. Strydom	do.
			do.	do.	do.	£34 1 0	J. A. Campbell	do.
			do.	do.	do.	£34 1 0	G. M. Campbell	do.
			Nooitgedacht No. 53	do.	do.	9s. per annum	Ainsworth Limited	do.
			do.	do.	do.	£15 0 0	Western Reefs Exploration and Development Co., Ltd.	do.
			do.	do.	do.	£5 0 0	P. M. Lotz	do.
			do.	do.	do.	£5 0 0	C. H. van der Westhuizen	do.
			do.	do.	do.	£10 0 0	J. F. Pieterse	do.
			Nooitgedacht No. 261	Heidelberg	do.	£19 0 0 per annum	F. J. Meyer	do.
			do.	do.	do.	£6 10 0 per annum	Klip Nigel Estate and Gold Mining Co., Ltd.	do.
			Strathmore No. 15	Klerksdorp	do.	£4 5 0 per annum	I. D. Scott	do.
			Blinkpoort No. 353	Heidelberg	do.	£13 0 0 per annum	H. A. Lilienfeld and A. O. A. Osborn	do.
			Poortje No. 123	do.	do.	—	East Rand Consolidated, Ltd.	do.
			Driefontein No. 3	Johannesburg	do.	£47 10 0	S. Fisher	do.
			do.	do.	do.	£1 10 0 per annum	G. Carleton Jones	do.
			do.	do.	do.	£35 2 0	H. E. Mould	do.
			do.	do.	do.	£5 0 0	R. D. Millner	do.
			Zandfontein No. 1	do.	do.	£5 0 0	Union Estate Limited	do.
			do.	do.	do.	£15 10 0	M. Weber	do.
			do.	do.	do.	£2 13 0 per annum	S. J. Millner	do.
			Bergvale No. 1	Germiston	do.	£1 5 0 per annum	W. F. Tillett	do.
			do.	do.	do.	£1 9 0 per annum	Estate of the late M. A. Zoccola	do.
			Waterval No. 34	Johannesburg	do.	—	F. C. Gibson	do.
			Droogespruit No. 53	Potchefstroom	do.	£2 13 0 per annum	S. W. Brits	do.
			do.	do.	do.	£7 11 0 per annum	J. Taljaard	do.
			Mapaiskraal No. 9	Klerksdorp	do.	£25 0 0	C. R. Stainer	do.
			Rietspruit No. 52	Vereeniging	do.	£1 16 0 per annum	F. J. Muller	do.
			do.	do.	do.	£1 15 0 per annum	C. J. Muller	do.
			do.	do.	do.	£6 3 0 per annum	M. A. Muller	do.
			do.	do.	do.	£2 8 6 per annum	J. A. J. van der Merwe	do.
			do.	do.	do.	£1 12 0 per annum	P. H. V. Lamont	do.
			Klipfontein No. 29	do.	do.	—	African and European Investment Co., Ltd.	do.
			Hartebeestpoortje No. 97	Potchefstroom	do.	£3 7 0 per annum	H. P. Landman	do.
			do.	do.	do.	£5 0 0	A. C. van Deventer	do.
			do.	do.	do.	£3 15 0 per annum	D. C. Grobler	do.
			do.	do.	do.	£15 0 0	A. M., J. P. L., and P. G. van Deventer	do.
			do.	do.	do.	£45 0 0	G. J. J., A. M., and J. P. L. van Deventer	do.
			do.	do.	do.	£3 16 0 per annum	G. J. Landman and others	do.
			do.	do.	do.	£1 4 0 per annum	H. J. H. Loubser	do.
			Hartebeestfontein No. 584	do.	do.	£123 17 0	P. J. Grimbeek	do.
			Modderfontein No. 52	do.	do.	£25 6 0	Government of the Union of South Africa and P. S. J. van der Walt	do.
			do.	do.	do.	£5 2 0 per annum	L. Wolf	do.
			Modderfontein No. 45	Klerksdorp	do.	£12 0 0 per annum	A. A. S. and J. R. T. Leask and E. Bramley	do.
			Rietpoort No. 114	Potchefstroom	do.	£39 10 0	C. A. Bamberger	do.
			Frischgewaagd No. 92	do.	do.	£7 12 3 per annum	B. C. Brits and others	do.
			do.	do.	do.	£14 11 0 per annum	F. J. Pretorius	do.
			Eigenaarsfontein No. 116	do.	do.	£2 11 0 per annum	J. C. Kloppers	do.
			do.	do.	do.	£2 11 0	H. P. van Aswegen	do.
			do.	do.	do.	£3 5 3 per annum	M. S. and H. C. B. Ferreira	do.
			Wilgeboom No. 68	do.	do.	£4 0 0 per annum	R. van der Merwe	do.
			do.	do.	do.	£16 9 0 per annum	E. J. A. Grimbeek	do.
			Rooipoortje No. 19	do.	do.	£5 5 0 per annum	J. P. Gosen	do.
			do.	do.	do.	£5 0 0	J. P. L. van Deventer	do.
			do.	do.	do.	£5 11 0	M. P. Bezuidenhout	do.
			do.	do.	do.	£12 19 3	S. P. Bezuidenhout	do.
			Wonderboom No. 126	do.	do.	£1 15 0 per annum	M. M. H. Badenhorst	do.
			do.	do.	do.	£7 3 0 per annum	U. Pfister	do.
			Patriotsfontein No. 20	Vereeniging	Servitude of Right-of-way	£3 8 3 per annum	R. J. N. Brits	do.
			Holfontein No. 55	do.	do.	£1 10 0 per annum	Estate of the late S. J. P. van Zyl	do.
			Uitval No. 26	Krugersdorp	Servitude of Right-of-way in Perpetuity	£13 1 6 per annum	Western Areas, Limited	do.
			Elandslaagte No. 67	Klerksdorp	do.	£52 5 6	H. J. Badenhorst and H. C. W. V. van der Merwe	do.
			Wilbeestspan No. 40	Potchefstroom	do.	£2 5 6 per annum	C. P. Fick	do.
			Roodekraap No. 37	Klerksdorp	do.	£1 13 6	J. Motseunyane	do.
			Lots 9, 10 and 12, Edenburg Township	Johannesburg	do.	£90 0 0	Sisters of Charity of J.M. Mother-House Ghent	do.
			Bronkhorstfontein No. 30	Potchefstroom	do.	£2 2 6 per annum	M. P. C. Malan	do.
			Libanon No. 28 and Uitval No. 26	Krugersdorp	Surface Right Permits	—	Government of the Union of South Africa	do.
			Vlakfontein No. 8 and 65	Brakpan and Heidelberg	do.	—	do.	do.
KLIP POWER STATION UNDERTAKING.								
141	444	112	Portion A of Springfield of Kookfontein No. 57 and Portion C of Beaconfield of Waldrift No. 92	Vereeniging	Purchase	£2,999 19 1	Estate of the late Donald McKay	Power Station Site
			Portion L ¹ of Waldrift No. 92 and L of Kookfontein No. 57	do.	Lease in Perpetuity	£24 0 0 per annum	do.	do.

STATEMENT No. 4.

Units sold to all consumers during the past fifteen years.

Year.	Cape Town Under- taking.	Durban Under- taking.	Klip Under- taking.	Natal Cent. Under- taking.	Sabie Under- taking.	Witbank Under- taking.	Total.
1925	—	—	—	—	75,943	—	75,943
1926	280,242	—	—	719,666	651,458	160,031,213	161,682,579
1927	5,811,836	—	—	104,206,235	1,938,940	439,061,722	551,018,733
1928	31,038,697	15,563,460	—	114,213,037	2,829,888	464,267,213	627,912,295
1929	47,945,690	78,873,576	—	123,911,774	3,176,173	543,091,138	796,998,351
1930	49,772,016	99,228,000	—	117,075,484	4,585,060	618,951,364	889,611,924
1931	52,109,958	103,899,765	—	101,131,880	6,585,553	603,359,113	867,086,269
1932	64,268,873	109,808,223	—	100,292,933	6,080,010	610,285,123	890,735,162
1933	100,685,629	118,538,312	—	109,186,538	6,349,651	639,368,114	974,128,244
1934	73,583,974	131,104,182	—	124,898,129	7,329,679	648,245,530	985,161,494
1935	80,020,511	149,874,024	—	154,278,600	7,181,282	727,888,529	1,119,242,946
1936	85,840,383	170,493,987	556,997,155	171,476,131	6,863,253	696,376,199	1,688,047,108
1937	94,038,449	189,412,691	1,349,853,464	210,632,827	7,166,684	684,516,633	2,535,620,748
1938	98,801,619	209,495,780	1,666,852,594	243,948,157	7,240,167	768,114,272	2,985,452,589
1939	106,451,848	233,677,491	2,193,206,661	266,238,056	6,380,657	767,741,727	3,573,696,440

NOTE.—The units sold at Cape Town do not include the units supplied to Cape Town Corporation under the Pooling Agreement.

STATEMENT No. 5.

Distribution of the units sold during 1939 as between the various classes of consumers:—

UNITS SOLD, 1939.

Undertaking.	Traction.	Bulk.	Industrial and Mining.	Domestic and Lighting.	Total.
Cape Town	53,080,973	14,623,082	30,007,890	8,739,903	106,451,848
Durban	—	218,808,740	13,337,492	1,531,259	233,677,491
Klip	—	2,193,206,661	—	—	2,193,206,661
Natal Central	219,408,785	35,593,655	8,935,315	2,300,301	266,238,056
Sabie	—	—	6,380,657	—	6,380,657
Witbank	89,415,787	588,271,818	88,635,412	1,418,710	767,741,727
Totals	361,905,545	3,050,503,956	147,296,766	13,990,173	3,573,696,440

STATEMENT No. 4.

Units sold to all consumers during the past fifteen years.

Year.	Cape Town Under- taking.	Durban Under- taking.	Klip Under- taking.	Natal Cent. Under- taking.	Sabie Under- taking.	Witbank Under- taking.	Total.
1925	—	—	—	—	75,943	—	75,943
1926	280,242	—	—	719,666	651,458	160,031,213	161,682,579
1927	5,811,836	—	—	104,206,235	1,938,940	439,061,722	551,018,733
1928	31,038,697	15,563,460	—	114,213,037	2,829,888	464,267,213	627,912,295
1929	47,945,690	78,873,576	—	123,911,774	3,176,173	543,091,138	796,998,351
1930	49,772,016	99,228,000	—	117,075,484	4,585,060	618,951,364	889,611,924
1931	52,109,958	103,899,765	—	101,131,880	6,585,553	603,359,113	867,086,269
1932	64,268,873	109,808,223	—	100,292,933	6,080,010	610,285,123	880,735,162
1933	100,685,629	118,538,312	—	109,186,538	6,349,651	639,368,114	974,128,244
1934	73,583,974	131,104,182	—	124,893,129	7,329,679	648,245,530	985,161,494
1935	80,020,511	149,874,024	—	154,278,600	7,181,282	727,888,529	1,119,242,946
1936	85,840,383	170,493,987	556,997,155	171,476,131	6,863,253	696,376,199	1,688,047,108
1937	94,038,449	189,412,691	1,349,853,464	210,632,827	7,166,684	684,516,633	2,535,620,748
1938	98,801,619	209,495,780	1,666,852,594	243,948,157	7,240,167	768,114,272	2,985,452,589
1939	106,451,848	233,677,491	2,193,206,661	266,238,056	6,380,657	767,741,727	3,573,696,440

NOTE.—The units sold at Cape Town do not include the units supplied to Cape Town Corporation under the Pooling Agreement.

STATEMENT No. 5.

Distribution of the units sold during 1939 as between the various classes of consumers:—

UNITS SOLD, 1939.

Undertaking.	Traction.	Bulk.	Industrial and Mining.	Domestic and Lighting.	Total.
Cape Town ...	53,080,973	14,623,082	30,007,890	8,739,903	106,451,848
Durban ...	—	218,808,740	13,337,492	1,531,259	233,677,491
Klip ...	—	2,193,206,661	—	—	2,193,206,661
Natal Central ...	219,408,785	35,593,655	8,935,315	2,300,301	266,238,056
Sabie ...	—	—	6,380,657	—	6,380,657
Witbank ...	89,415,787	588,271,818	88,635,412	1,418,710	767,741,727
Totals ...	361,905,545	3,050,503,956	147,296,766	13,990,173	3,573,696,440

STATEMENT No. 6.
Power Station Statistics—1939.

Power Station.	Units Generated.	Maximum Half-hourly Demand. Kilowatts (Sent Out).	Load Factor on Units Sent Out. %
Caledon	352,576		
Colenso	297,175,110	53,560	59.9
Congella	252,119,090	62,533	42.7
Klip	2,336,793,815	352,930 (Hour)	70.9
Margate	381,223		
Sabie	6,846,800	1,225	63.0
Salt River	138,991,016	62,800	23.6*
Volksrust	5,723		
Witbank	729,142,992	103,016 (Hour)	75.2
	<u>3,761,808,345</u>		

* Calculated for 8,736 hours.

STATEMENT No. 7.

Particulars of coal used at the Commission's Steam-raising Power Stations during 1939.

Power Station.	COAL CONSUMED.			B.T.U.'s.		Thermal Efficiency on Units Sent Out.
	Tons. (2,000 lbs.)	Per Unit Generated. Lbs.	Per Unit Sent Out. Lbs.	Average per lb. of Coal.	Average per Unit Sent Out.	
Colenso	218,530	1.47	1.55	12,360	19,200	17.8%
Congella	169,983	1.35	1.45	12,240	17,700	19.3%
Klip	1,876,010	1.61	1.71	9,420	16,120	21.2%
Salt River	95,683	1.38	1.48	13,000	19,200	17.7%
Witbank	668,561	1.83	1.97	10,890	21,450	15.9%
	<u>3,028,767</u>					

Power Station.	Average Cost per Ton (2,000 lbs.).									
	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
Colenso	8/-	8/3	9/10	10/7	10/9	10/9	11/-	10/10	10/9	10/11
Congella	13/2	14/2	15/4	15/6	15/4	15/-	15/5	15/2	15/-	15/3
Klip	—	—	—	—	—	—	3/2	3/-	3/3	3/4
Salt River	23/5	23/4	24/11	25/4	25/6	25/4	25/4	24/8	25/1	25/6
Witbank	2/2	2/2	2/4	2/4	2/3	2/3	2/2	2/2	2/1	2/1

STATEMENT No. 6.

Power Station Statistics—1939.

Power Station.	Units Generated.	Maximum Half-hourly Demand. Kilowatts (Sent Out).	Load Factor on Units Sent Out. %
Caledon	352,576		
Colenso	297,175,110	53,560	59·9
Congella	252,119,090	62,533	42·7
Klip	2,336,793,815	352,930 (Hour)	70·9
Margate	381,223		
Sabie	6,846,800	1,225	63·0
Salt River	138,991,016	62,800	23·6*
Volkstrust	5,723		
Witbank	729,142,992	103,016 (Hour)	75·2
	<u>3,761,808,345</u>		

* Calculated for 8,736 hours.

STATEMENT No. 7.

Particulars of coal used at the Commission's Steam-raising Power Stations during 1939.

Power Station.				COAL CONSUMED.		B.T.U.'s.		Thermal Efficiency on Units Sent Out.			
	Tons. (2,000 lbs.)	Per Unit Gener- ated. Lbs.	Per Unit Sent Out. Lbs.	Average per lb. of Coal.	Average per Unit Sent Out.						
Colenso	218,530	1.47	1.55	12,360	19,200			17.8%			
Congella	169,983	1.35	1.45	12,240	17,700			19.3%			
Klip	1,876,010	1.61	1.71	9,420	16,120			21.2%			
Salt River	95,683	1.38	1.48	13,000	19,200			17.7%			
Witbank	668,561	1.83	1.97	10,890	21,450			15.9%			
	3,028,767										
	Average Cost per Ton (2,000 lbs.).										
		1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
Colenso		8/-	8/3	9/10	10/7	10/9	10/9	11/-	10/10	10/9	10/11
Congella		13/2	14/2	15/4	15/6	15/4	15/-	15/5	15/2	15/-	15/3
Klip		—	—	—	—	—	—	3/2	3/-	3/3	3/4
Salt River		23/5	23/4	24/11	25/4	25/6	25/4	25/4	24/8	25/1	25/6
Witbank		2/2	2/2	2/4	2/4	2/3	2/3	2/2	2/2	2/1	2/1

ANNEXURE " C. "

**STATISTICS RELATING TO THE PRODUCTION AND SUPPLY OF ELECTRICITY
IN THE UNION OF SOUTH AFRICA.**

Extracted from the 1937/38 Industrial Census, and published by courtesy of the Department
of Census and Statistics (Pretoria).

UNITS GENERATED.

Province.	Local Authorities.	Other Producers.
Cape	162,467,428	400,455,650
Natal	17,137,462	598,352,313
O.F.S.	36,166,999	30,715,417
Transvaal	412,791,018	4,274,906,616
Totals	628,562,907	5,304,429,996
	5,932,992,903	

CONSUMERS AND SALES.

	PROVINCE.				Totals.
	Cape.	Natal.	O.F.S.	Transvaal.	
Total Number of Consumers	118,072	47,773	12,438	124,620	302,903
Total Units Consumed ...	493,180,836	532,430,980	56,413,366	3,816,194,434	4,898,219,616
Number of Domestic Consumers	105,960	37,323	10,934	105,221	259,438
Units Sold to Domestic Consumers	221,695,199	101,768,609	9,346,550	220,483,641	553,293,999
Average Units Sold per Domestic Consumer	2,092	2,727	855	2,095	2,133

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Totals	628,562,907	5,304,429,996
			<u>5,932,992,903</u>	

CONSUMERS AND SALES.

	PROVINCE.				
	Cape.	Natal.	O.F.S.	Transvaal.	Totals.
Total Number of Consumers	118,072	47,773	12,438	124,620	302,903
Total Units Consumed ...	493,180,836	532,430,980	56,413,366	3,816,194,434	4,898,219,616
Number of Domestic Consumers	105,960	37,323	10,934	105,221	259,438
Units Sold to Domestic Consumers	221,695,199	101,768,609	9,346,550	220,483,641	553,293,999
Average Units Sold per Domestic Consumer	2,092	2,727	855	2,095	2,133

**STATISTICS RELATING TO THE PRODUCTION AND SUPPLY OF ELECTRICITY
IN THE UNION OF SOUTH AFRICA.**

INSTALLED CAPACITY OF PLANTS.

Capacity.	Number of Power Stations.	Total Installed Capacity—Kilowatts.
50,000 kilowatts and over	10	1,044,600
20,000 kilowatts and over and below 50,000 kilowatts	6	215,350
10,000 kilowatts and over and below 20,000 kilowatts	4	46,000
5,000 kilowatts and over and below 10,000 kilowatts	7	55,080
1,000 kilowatts and over and below 5,000 kilowatts	29	60,610
Below 1,000 kilowatts	234	55,479
	<u>290</u>	<u>1,477,119</u>

SIZE AND TYPE OF GENERATING UNITS.

Size of Sets.	Steam Turbines.	Steam Recip- rocating Engines.	Diesel Petrol, Paraffin, Light Oil Engines.	Gas Engines.	Water Wheels and Turbines.	Total Number of Sets.
(1) A.C. Plants—						
Below 250 kilowatts	2	77	225	12	22	338
250 kilowatts and over, but below 1,000 kilowatts	26	66	9	7	11	119
1,000 kilowatts and over, but below 5,000 kilowatts	72	—	—	—	—	72
5,000 kilowatts and over	80	—	—	—	—	80
(2) D.C. Plants—						
Below 250 kilowatts	1	49	145	12	2	209
250 kilowatts and over, but below 1,000 kilowatts	1	14	2	—	—	17
1,000 kilowatts and over, but below 5,000 kilowatts	2	—	—	—	—	2

FUEL CONSUMED.

Type of Fuel.	Quantity. (Tons=2,000 lbs.).	Cost.
Coal	5,363,691	£1,961,072
Other Fuel	—	£139,850

**STATISTICS RELATING TO THE PRODUCTION AND SUPPLY OF ELECTRICITY
IN THE UNION OF SOUTH AFRICA.**

COAL CONSUMPTION.

Average Coal Consumption per Unit Generated.	Number of Undertakings.
Under 2 lbs.	21
2 lbs. and over, but under 3 lbs.	18
3 lbs. and over, but under 4 lbs.	16
4 lbs. and over, but under 6 lbs.	20
6 lbs. and over, but under 8 lbs.	10
8 lbs. and over	28

TRANSMISSION AND DISTRIBUTION LINES—ROUTE MILES.

System.	Overhead Lines.	Underground Cables.
D.C.—All voltage	568	443
A.C.—Below 2,000 volts	5,288	3,256
2,000 volts to 11,000 volts	1,385	3,123
Above 11,000 volts	2,575	263

TRANSFORMERS.

Total installed capacity 5,885,006 K.V.A.

Total value of land, buildings, machinery, plant and tools	£42,267,255
Total number of persons employed in the electricity industry (generation and distribution)	15,986
Total salaries and wages paid for the year	£2,352,007

**STATISTICS RELATING TO THE PRODUCTION AND SUPPLY OF ELECTRICITY
IN THE UNION OF SOUTH AFRICA.**

INSTALLED CAPACITY OF PLANTS.

Capacity.	Number of Power Stations.		Total Installed Capacity—Kilowatts.
50,000 kilowatts and over	10	...	1,044,600
20,000 kilowatts and over and below 50,000 kilowatts	6	...	215,350
10,000 kilowatts and over and below 20,000 kilowatts	4	...	46,000
5,000 kilowatts and over and below 10,000 kilowatts	7	...	55,080
1,000 kilowatts and over and below 5,000 kilowatts	29	...	60,610
Below 1,000 kilowatts	234	...	55,479
	<u>290</u>	...	<u>1,477,119</u>

SIZE AND TYPE OF GENERATING UNITS.

Size of Sets.	Steam Turbines.	Steam Recip- rocating Engines.	Diesel Petrol, Paraffin, Light Oil Engines.	Gas Engines.	Water Wheels and Turbines.	Total Number of Sets.
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Below 250 kilowatts	2	77	225	12	22	338
250 kilowatts and over, but below 1,000 kilowatts	26	66	9	7	11	119
1,000 kilowatts and over, but below 5,000 kilowatts	72	—	—	—	—	72
5,000 kilowatts and over	80	—	—	—	—	80
(2) D.C. Plants—						
Below 250 kilowatts	1	49	145	12	2	209
250 kilowatts and over, but below 1,000 kilowatts	1	14	2	—	—	17
1,000 kilowatts and over, but below 5,000 kilowatts	2	—	—	—	—	2

FUEL CONSUMED.

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Coal	5,363,691	£1,961,072
Other Fuel	—	£139,850

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System.	Overhead Lines.	Underground Cables.
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A.C.—Below 2,000 volts	5,288	3,256
2,000 volts to 11,000 volts	1,385	3,123
Above 11,000 volts	2,575	263

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Total value of land, buildings, machinery, plant and tools	£42,267,255
Total number of persons employed in the electricity industry (generation and distribution)	15,986
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