



**Aerial View of Escom House, the Head Office of the Electricity Supply Commission,
Rissik Street, Johannesburg.**

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MEMBERS OF THE
Electricity Supply Commission.

DR. HENDRIK JOHANNES VAN DER BIJL (Chairman)

ALBERT MICHAEL JACOBS.

ROBERT BURNS WATERSTON.

WILLIAM PLOWMAN MOYESE HENDERSON.

Electricity Supply Commission.

Escom House,

Rissik Street,

Johannesburg,

30th April, 1937.

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 pleasure in submitting its Fourteenth Annual Report, covering its operations for the year ended 31st December, 1936, together with a brief review of its activities up to 31st March, 1937.

The Commission is again able to record substantial progress in the various fields of its activities during the period under review.

Enormous growth in the demand for electricity is indicated by the fact that capital works in connection with power station extensions, involving the installation of 242,600 kilowatts of generating plant, etc., at an estimated cost of approximately £3,500,000, were embarked upon by the Commission during 1936. The most important extension will take place at the Klip Power Station, which was designed in 1934 for an ultimate installed capacity of 350,000 kilowatts of generating plant, to augment the supply of power, principally to the gold mines, and to provide for the growth of this load over several years, based on estimates which were at that time considered to be liberal. Owing to the phenomenal expansion of the gold mining industry, the demand for power has grown to such an extent that it has been decided to increase the installed capacity of the station to 424,000 kilowatts, which will then be larger than any existing power station in the

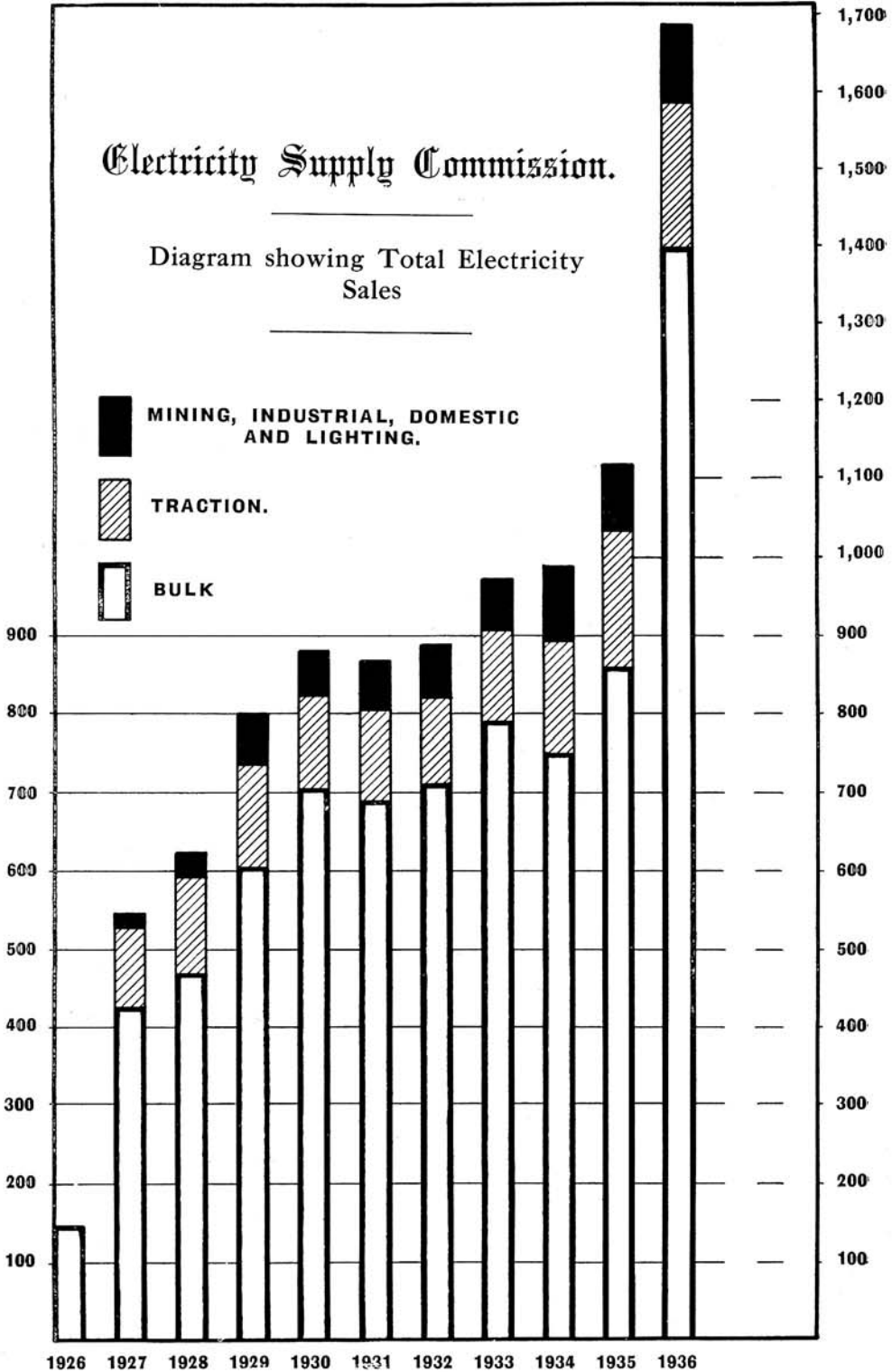
Electricity Supply Commission.

Diagram showing Total Electricity Sales

MILLIONS OF UNITS (K.W.H.) SOLD.

MILLIONS OF UNITS (K.W.H.) SOLD.

- MINING, INDUSTRIAL, DOMESTIC AND LIGHTING.
- TRACTION.
- BULK



Southern Hemisphere. Details of this and other extensions are given later in this report. These extensions will bring up the total installed capacity of generating plant in all the Commission's power stations to 775,443 kilowatts. The Commission's area of supply in the four provinces of the Union is now over 20,000 square miles, and it owns over 1,200 route miles of overhead power lines and 65 route miles of underground cables, the total step-up and step-down static transformer capacity on the systems being 699,573 kVA.

SALES OF ELECTRICITY.

The Commission's sales of electricity reached a new high-level record in 1936, with a total of 1,688,047,108 units, which shows an increase of approximately 51 per cent. over the sales for the previous year, and about 112 per cent. over the sales for 1929, which was the first complete year of operation of all the Commission's Undertakings established at that time. A satisfactory feature is that substantial increases are reflected in the sales to practically all classes of consumers as shown in the following table:

Class of Supply.	1935.	1936.	Percentage Increase.
Bulk Supplies for—			
Mining, etc.	675,664,157	1,190,801,515	76.2
*Municipal	182,046,852	206,757,057	13.6
Direct Supplies for—			
Mining	27,903,854	31,932,815	14.4
Industrial	55,065,165	64,350,389	16.9
Domestic and Lighting	4,301,638	6,120,142	42.3
Traction	174,261,280	188,085,190	7.9
Totals ...	<u>1,119,242,946</u>	<u>1,688,047,108</u>	

* A large proportion of the electricity supplied in bulk to Municipalities is used for domestic and lighting purposes.

It is interesting to record that the domestic consumption of electricity by users, supplied direct by the Commission, has risen by over 100 per cent. in the last two years, the average consumption per annum per consumer to-day being 1,168 units.

RURAL SUPPLIES.

A gratifying feature of the Commission's work is the progress that has been achieved in rural electrification. Numerous small towns and villages, mostly in the neighbourhood of the Commission's power lines in the Western Cape Province and in Natal, which were previously dependent upon the more primitive methods for lighting and domestic purposes, now enjoy the amenities of a cheap and abundant supply of electricity. This is largely the result of the expansion of Undertakings which were established primarily for railway electrification purposes. The total number of towns and villages supplied by the Commission at present is 63, of which 14 are supplied in bulk; in the remainder, consumers are supplied individually by the Commission.

Hire-purchase of domestic electrical appliances and assisted-wiring schemes, which are available to all the Commission's domestic consumers, coupled with propaganda in the form of cooking demonstrations and talks describing the ways in which electricity can be of use to the consumer, have been particularly helpful in developing the use of electricity in the rural areas.

Farm supply schemes have been developed mainly in the deciduous fruit-growing and wine-making areas of the South-western Cape, where there are numerous groups of small farming communities making use of electricity, not only for lighting and domestic purposes, but also for grape-pressing, dairying and water pumping for domestic and irrigation services. Steady progress is being made in other farming areas in the vicinity of the Commission's power lines, particularly in the districts of Merrivale and Dargle, Natal. At the end of 1936 there were 254 farms connected to the Commission's supply systems throughout the Union.

RAILWAY ELECTRIFICATION.

Rapid progress was made during the year with the railway electrification work which was commenced in 1935. Electric traction over the Cato Ridge-Durban section (approximately 45 miles) of the Natal main line was officially inaugurated by the Hon. the Minister of Railways and Harbours on 1st December, 1936, and the section of the line between Glencoe and Volksrust (approximately 77 miles) is expected to be operated electrically by the end of August, 1937. This will complete the conversion of the

RAILWAY ELECTRIFICATION.

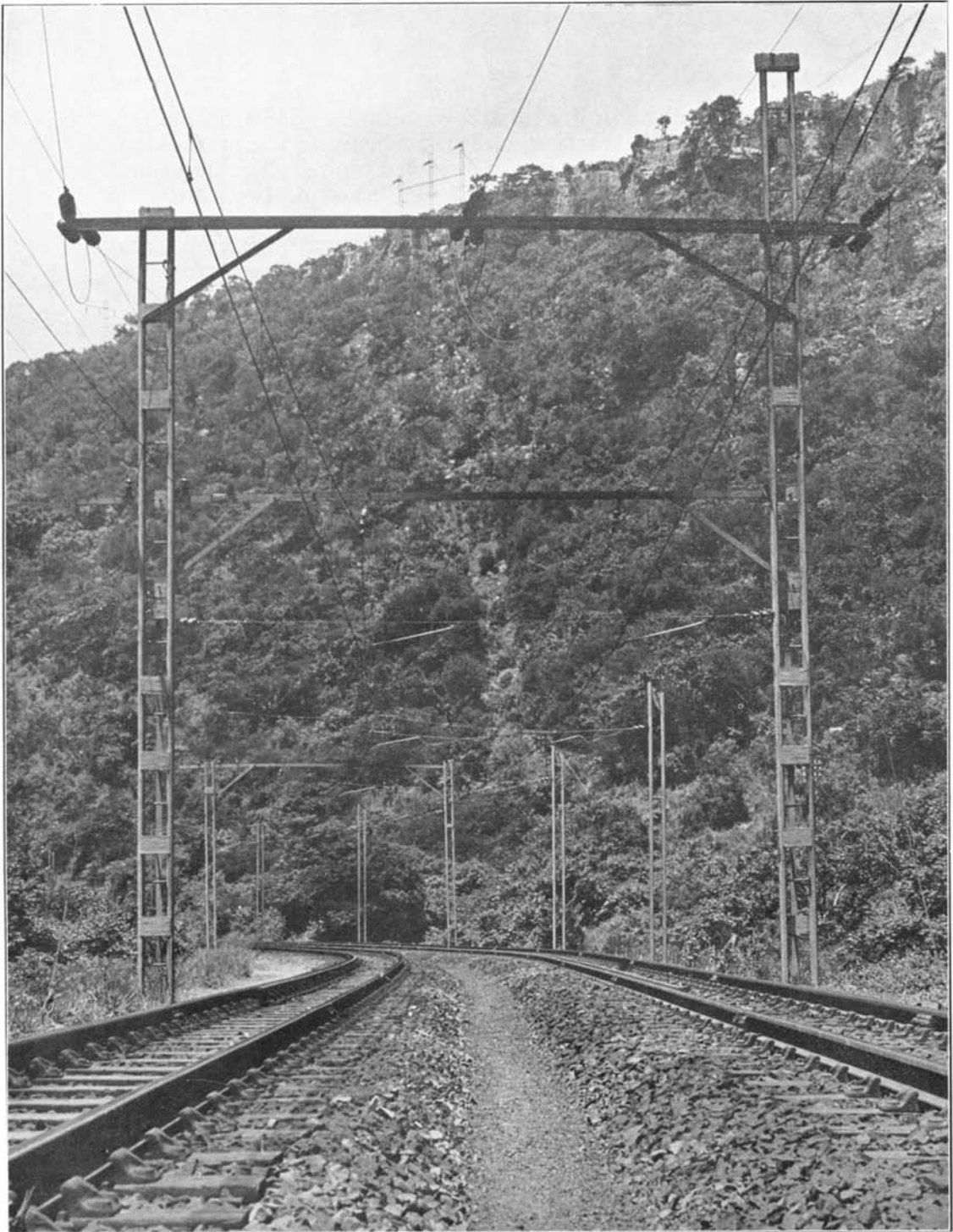
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whole of the Natal main line (326·5 route miles; 548 track miles) from steam to electric traction, and will constitute the most extensive main line electrification in the British Empire. The plant and equipment provided by the Commission in connection with the Cato Ridge-Durban and Glencoe-Volksrust sections include 11 Mercury Arc Rectifier Sub-stations, aggregating 29,260 kVA., and 163 route miles of single circuit three wire, 88,000 volt transmission lines. The whole of the South African Railways and Harbours Administration's electricity requirements for traction purposes in Natal, which, in 1936, amounted to 139,195,138 units, is being supplied from the Commission's power station at Colenso.

Work in connection with the electrification of the railway system along the Witwatersrand (95½ miles) and from Germiston to Pretoria (36 miles) for which the Commission is providing 12 Mercury Arc Rectifier Sub-stations, aggregating 49,580 kVA., and 15 route miles of 40,000-volt single circuit three-wire transmission lines, has progressed so far that two short sections (Germiston-Wattles and Germiston-Alberton) were opened to electric trains on 15th March, 1937. The entire system is expected to be electrically operated by November, 1937.

The power for traction purposes over the Reef and the Germiston-Pretoria lines will be supplied from the joint systems of the Commission and The Victoria Falls and Transvaal Power Company, Limited, which is a further example of the benefits of the co-operative arrangements existing between that Company and the Commission.

The construction of the substation buildings, the installation of the rectifier plant, and the erection of the transmission lines required in connection with the Reef railway electrification scheme and the extensions in Natal, are being carried out on behalf of the Commission by the Railway Administration's electrical staff concurrently with the Administration's portion of the work. The Commission wishes to take this opportunity of expressing its thanks to the responsible Railway Officials, and to record its recognition and appreciation of the excellence of the work carried out for it by the Administration's staff, who displayed considerable ingenuity in overcoming various construction difficulties encountered, particularly on the Cato Ridge-Durban section, where the hilly nature of the country, with its deep valleys, set the engineers many perplexing problems. For instance, the transmission line had to be taken from the precipitous heights above Delville Wood



Natal Electrification—The Shongweni Gorge, showing the "Big Span" of the Power Line from the Pylons on the Crest of the Gorge to the Track Structure in the foreground.

tunnel to the track below, across a deep gorge some 1,500 feet wide. (See photograph on page 10.) The obstacles in the way of running out the line by hand and negotiating the ravines and dense bush were practically insurmountable. By means of a rocket gun, borrowed from the Durban Port Authorities, a life line attached to the power line was shot down to the track and then hauled across.

PUBLICITY AND PROPAGANDA.

The publication of a monthly magazine was launched by the Commission in May, 1936, to promote a national interest in the use of electricity and to give helpful information and advice on electrical and cognate matters. Various Municipalities throughout the Union are co-operating with the Commission in the collection of the monthly subscriptions to the magazine, and a circulation of over 17,000 has been achieved up to date.

The Commission participated jointly with The Victoria Falls and Transvaal Power Company, Limited, and The Pretoria Portland Cement Company, Limited, in the Empire Exhibition held in Johannesburg from September, 1936, to January, 1937, by providing an exhibit in the form of an illuminated tower 150 feet in height. The "Tower of Light," which was the focal point of visitors to the Exhibition, had considerable publicity merit.

THIRD WORLD POWER CONFERENCE.

The Commission, as a member of the South African National Committee of the World Power Conference, was represented at, and took a prominent part in, the Third World Power Conference, held in Washington, D.C., United States of America, from 7th to 12th September, 1936. The Conference, which was devoted largely to the relations of power resources, their development and application to the social and economic interests of the nation, rather than to the technical side of power development, was productive of much useful information, and afforded an opportunity for the discussion of power supply and other problems with eminent engineers from all parts of the civilised world.



The Tower of Light—Empire Exhibition, Johannesburg.

ESCOM HOUSE.

Escom House, the Commission's new headquarters, which is to-day an outstanding landmark in the City of Johannesburg, has been occupied by the Commission's head office staff since August, 1936, though it was not completed at that date. Practically all the surplus accommodation in the building has been leased to suitable tenants. A feature of interest in Escom House is the "Hall of Achievement," which will be used for the purpose of a permanent exhibition of approved domestic electrical appliances from different countries, to encourage the domestic use of electricity and to facilitate selection by prospective purchasers.

FINANCIAL.

A loan of £2,000,000 at an issue price of £98 per cent., redeemable in 1956/66, and bearing interest at the rate of $3\frac{1}{4}$ per cent. per annum, was successfully raised in July, 1936, being heavily over-subscribed within half an hour of the opening of the subscription lists. This loan was raised for the purpose of financing the Reef Electrification Scheme and extensions to the Commission's Klip Generating Station and other Undertakings. The Commission's Loan Capital now totals £14,250,000, the whole of which has been publicly subscribed in South Africa. The amount in the Redemption Fund at 31st December, 1936, in respect of these loans stood at £1,122,955.

The Reserve Fund at 31st December, 1936, amounted to £945,175, being £158,954 more than last year.

The market value of the securities held by the Commission on behalf of the various Funds at the date of the Balance Sheet was far in excess of the book value of £2,204,114, the nominal value thereof being £2,218,475. These securities represent investments in Government, Municipal and Electricity Supply Commission Stocks, and Debentures guaranteed by the Union Government.

The total assets of the Commission at 31st December, 1936, amounted to £17,227,878, and its total liabilities to £14,842,890, the excess of assets over liabilities being £2,384,988, which shows an increase of £460,381 compared with the previous year.

Expenditure on Capital Account during the year amounted to £2,061,295, which brought the total Capital expenditure at 31st December, 1936, up to £13,551,779.

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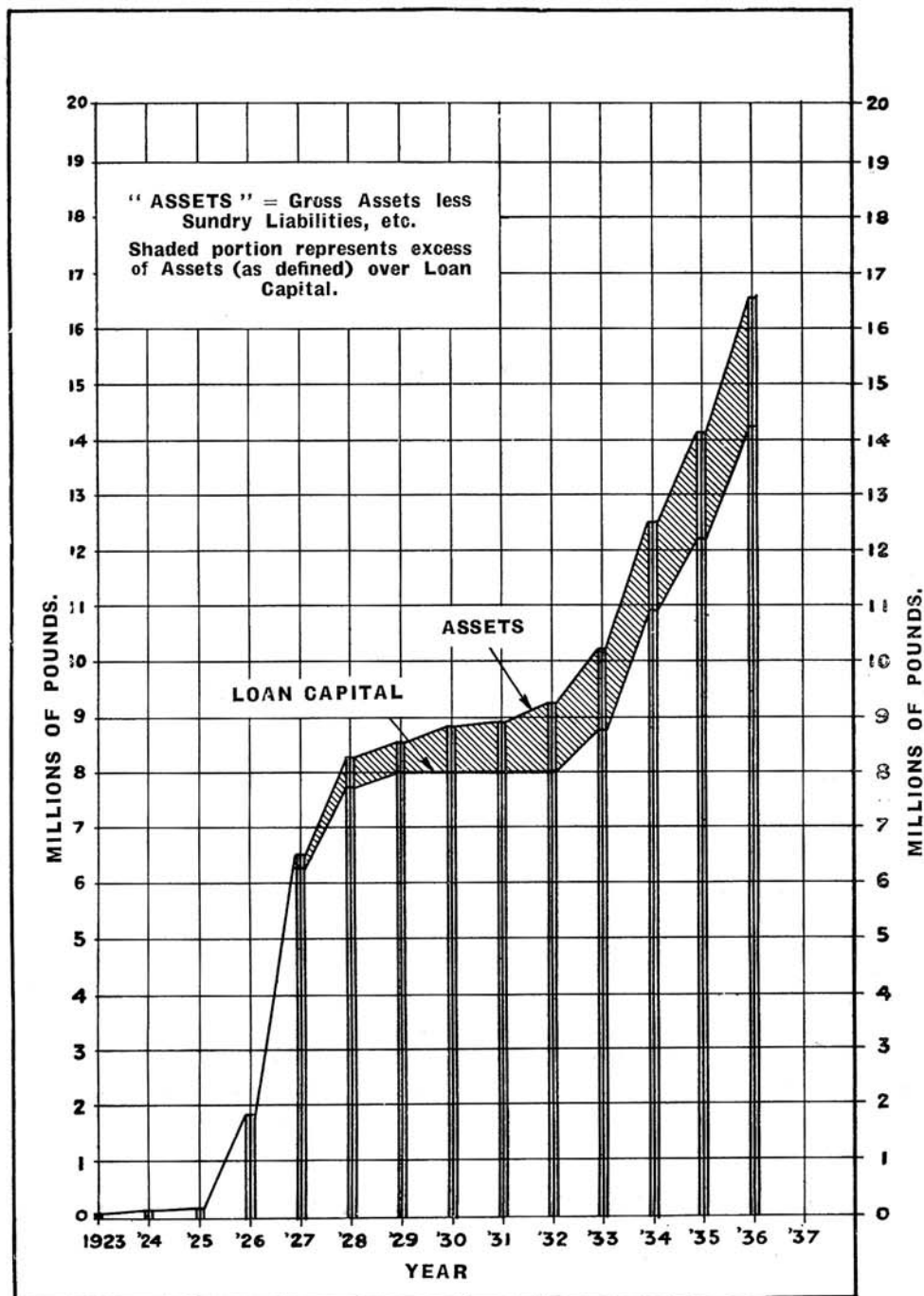
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ASSETS AND LOAN CAPITAL.



Revenue, production costs, and other important figures relating to the operation of the Commission's Undertakings during the year 1936, and the comparative figures for 1935, are as follows:—

	1936.	1935.	Difference.
Total Revenue	£1,548,420	£1,250,542	+ 23·82%
Total Production Costs (including Interest, Redemption and Reserve Fund Charges, but excluding a portion of Salt River Power Station Costs paid by Capetown Corporation under the Pooling Agreement) ...	£1,539,368	£1,218,802	+ 26·30%
Excess of Revenue over Production Costs	£9,052	£31,740	
Average Price per Unit Sold	0·217d.	0·266d.	- 18·42%
Average Revenue per Unit Sold (including Sundry Revenue) ...	0·220d.	0·268d.	- 17·91%
Average Cost per Unit Sold	0·219d.	0·261d.	- 16·09%
Total cost of coal consumed	£513,636	£385,213	+ 33·34%
Coal consumed (in tons of 2,000 lbs.)	1,561,266	1,036,101	+ 50·69%

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TARIFFS.

The relatively small surplus of £9,052 made during the year on all the Commission's operations, which represents approximately 0·6 per cent. of the total revenue, indicates the measure of success achieved by the Commission in the framing of its tariffs to accord with the general principle laid down in the Electricity Act that the Commission shall, as far as practicable, operate its Undertakings neither at a profit nor at a loss.

Reductions were made in the charges for electricity supplied to the various consumers from the Capetown and the Natal Central Undertakings during 1936.

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 462 Europeans and 400 non-Europeans at 31st December, 1936, an increase of 19 and 65 respectively, as compared with the numbers at the end of 1935.

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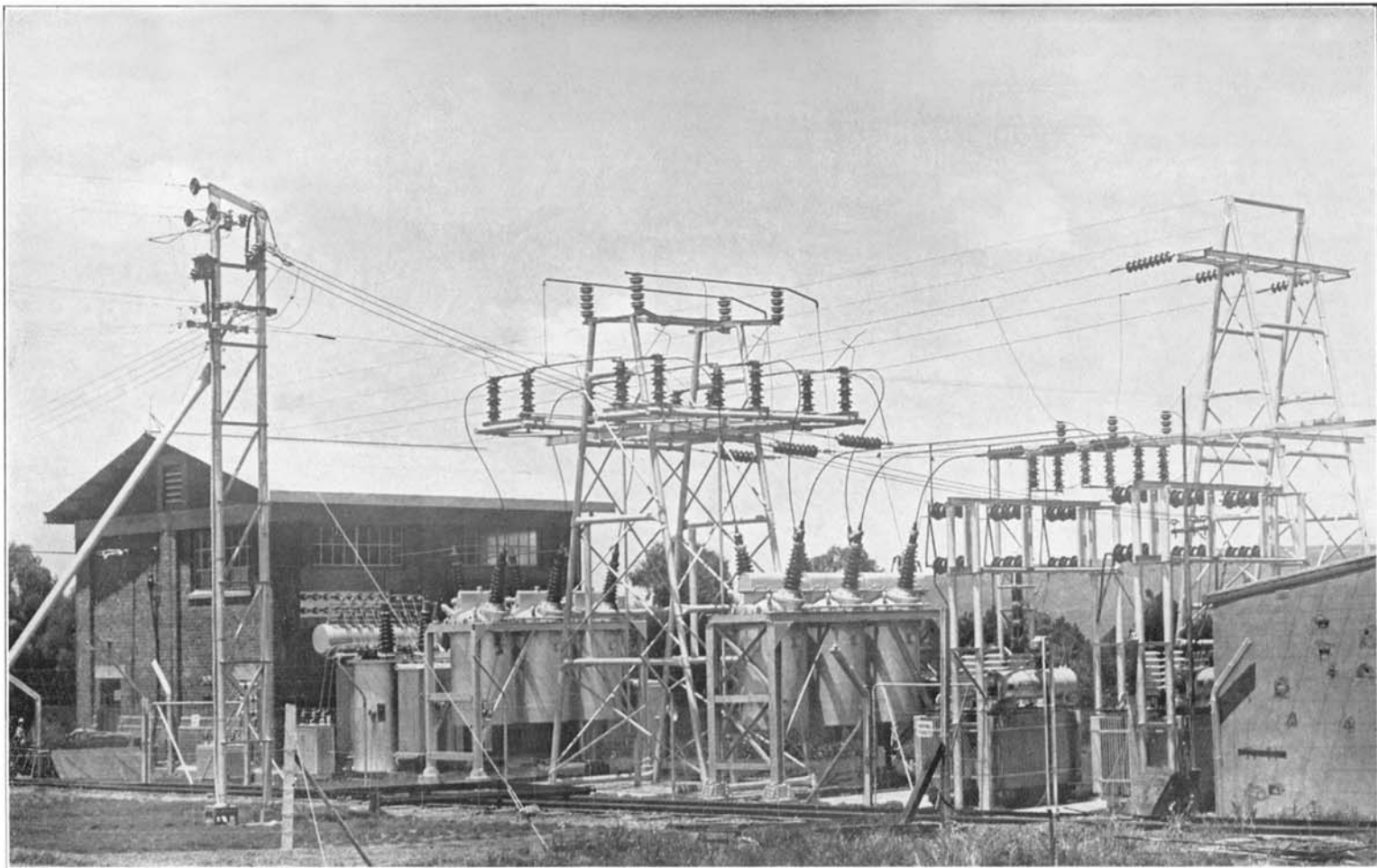
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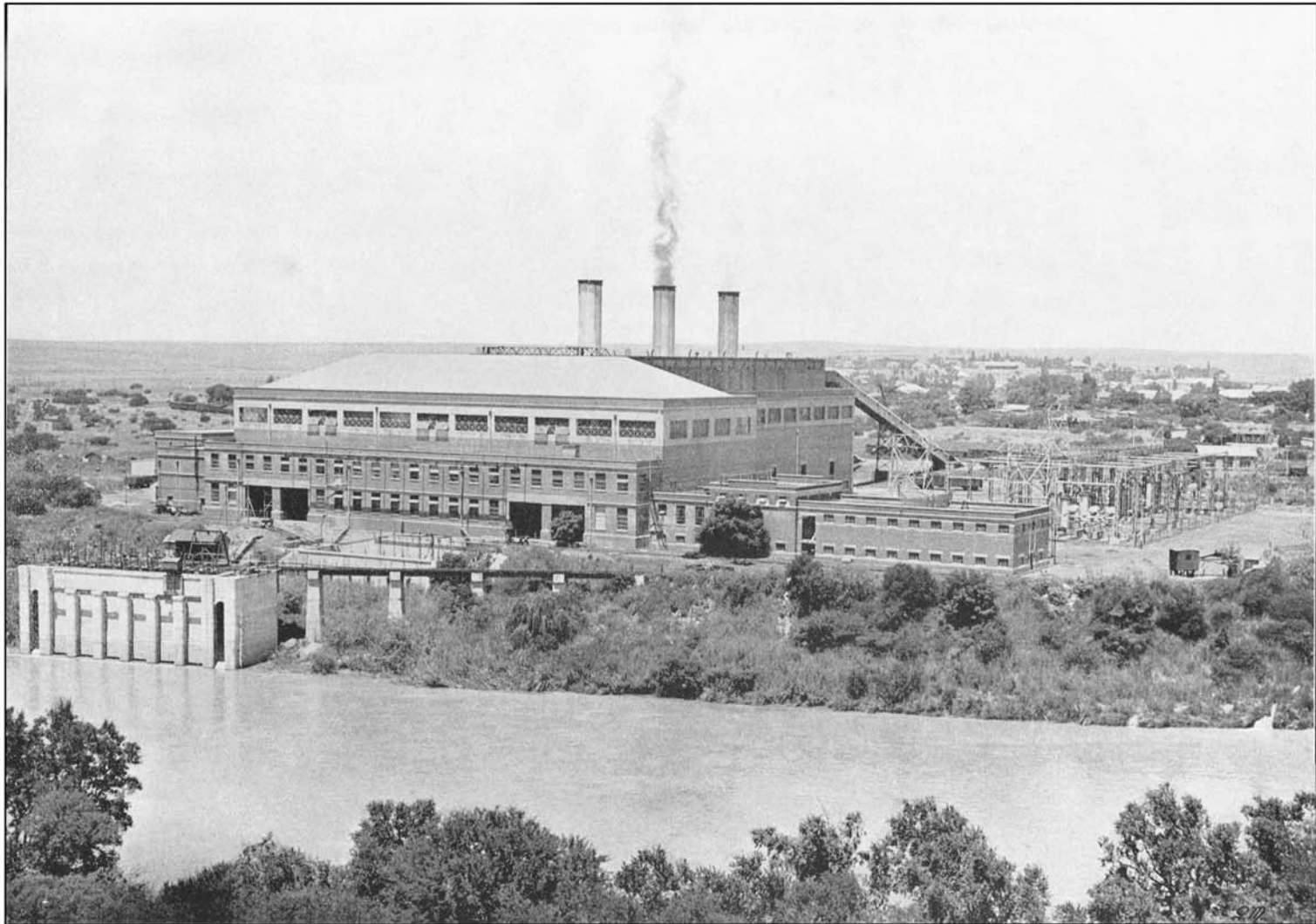
Mr. John Roberts, who held the position of Manager of the Commission's Durban Undertaking since its inception in 1925, retired from the Commission's service in February, 1937. He had been Borough Electrical Engineer of Durban since February, 1898, and held the joint positions from 1925 to 1933, when he retired from the Corporation's service. The progressive policy in connection with the domestic use of electricity so successfully advocated by Mr. Roberts, who may rightly be designated as the father of domestic electrification in South Africa, was largely responsible for the eminent position held by Durban in that field, and the Commission has pleasure in recording its recognition and appreciation of the valuable services rendered by Mr. Roberts during his Managership of the Durban Undertaking.

In view of the co-relation—particularly in regard to railway electrification—of the two Natal Undertakings, the Commission decided on Mr. Roberts's retirement to place both under one management, and appointed Mr. J. A. West (the former Manager of the Natal Central Undertaking) as Manager of its Natal Undertakings.

The Commission desires to record its appreciation of the services rendered by its officials and employees during the year, the success achieved being in large measure due to their unremitting efforts.



Combined Sub-Station for local supply and Mercury Arc Rectifier for traction—Harrismith.



Colenso Power Station on Tugela River, Natal.

NATAL CENTRAL UNDERTAKING

Extensions
of Railway
Electrifi-
cation.

The supply of electricity from the Colenso Power Station for the extension of railway traction over the Cato Ridge-Durban section of the Natal main line was commenced in December, 1936, under temporary permission granted by the Electricity Control Board in January, 1936, pending decision by the Board of the Commission's application for an amendment of the Licence of the Natal Central Undertaking, to which application the City Council of Durban had lodged an objection in so far as the supply of electricity from the Colenso Power Station to consumers in the area of supply of the Commission's Durban Undertaking was concerned. Since the adjournment in March, 1936, of the hearing of the Commission's application, a Committee, consisting of the Commercial Manager of the Commission, the Durban City Electrical Engineer and the Consulting Electrical Engineer to the Railway Administration, has investigated various proposals put forward at the hearing, and as a result of the Committee's recommendations it is hoped that an arrangement satisfactory to the three parties will shortly be ratified by the Electricity Control Board.

The Colenso Power Station remained unchanged with an installation of five 12,000 kilowatt turbo generators and ten boilers, each rated at 60,000 lbs. of steam per hour.

The net capital expenditure on the Undertaking as at 31st December, 1936, was £3,856,635, an increase of £235,003 as compared with the figure for 1935. The increased expenditure was incurred mainly in connection with the new substations and transmission lines for the extension of railway electrification from Cato Ridge to Durban, and Glencoe to Volksrust.

Working
Results.

The units sent out from the Colenso Power Station during the year totalled 180,887,455, an increase of 11·77 per cent. over the previous year. Of the total, 139,195,138 units were sold for railway traction purposes, or 9·64 per cent. more than in 1935.

The maximum half-hourly demand sent out was 36,260 kilowatts, and the load factor 56·8 per cent. The thermal efficiency of the Power Station on units sent out was 18·1 per cent.

The revenue for the year was £412,828, and the working costs £412,110. The average price per unit sold decreased from 0·596d. in 1935 to 0·572d. in 1936.

New
Consumers.

By agreement with the Volksrust Town Council, the Municipal electricity undertaking and the supply of electricity to consumers at Volksrust were taken over by the Commission in June, 1936.

Arrangements were also concluded during the year for the supply of electricity from the Natal Central Undertaking to consumers in the township of Weenen, and for a bulk supply to the Bethlehem Municipality. Other new consumers include The Natal Cambrian Collieries at Dannhauser, a group of 14 farmers in the Dargle District, a rural community of 7 consumers at Tweedie, and the extension of the Merrivale Farmers' Scheme to include 6 additional consumers. There were 46 farms connected to the supply system of the Undertaking at the end of 1936.

The total number of consumers supplied by the Undertaking at 31st December, 1936, was 1,016, an increase of 469 over the previous year.

Progress
during
decennial
period.

The first decennial period since the Commission took over the Natal Central Undertaking from the Railway Administration was completed at the end of 1936, and the progress made during that time is briefly reviewed hereunder.

In 1927 the only consumers, apart from the Railway Administration, were the Municipalities of Estcourt, Glencoe, and Ladysmith, who were supplied in bulk, and a partial supply was given to the Pietermaritzburg Municipality. Since then the following consumers have been connected:—

Bulk supplies to Dundee, Harrismith, and Newcastle Municipalities, and a full supply to Pietermaritzburg Municipality; Mooi River Local Board; Cedara Agricultural College; Michaelhouse and Hilton Road Colleges; South African Rubber Manufacturing Company, Howick; Union Glass Works, Talana; Farmers' Co-operative Dairies at Umlaas Road; Cambrian Collieries, Dannhauser.

Direct supplies to individual consumers at Colenso, Nottingham Road, Merrivale, Waschbank, Lowlands, Umlaas Road, Dansekraal, Dannhauser, Richmond and Van Reenen. In addition, a number of small consumers, conveniently situated at sub-station points or near the 6.6 kV. transmission lines, have been connected.

The growth of the sales of electricity from the Undertaking for other than railway traction purposes is shown in the following table:—

	1927.	1936.
	kwh.	kwh.
Bulk Supplies	1,883,546	25,273,223
Industrial	1,810,205	5,882,160
Domestic and Lighting (direct supplies)	10,185	1,125,610
Total	<u>3,703,936</u>	<u>32,280,993</u>

The revenue earned from these supplies increased from £6,061 in 1927 to £82,881 in 1936.

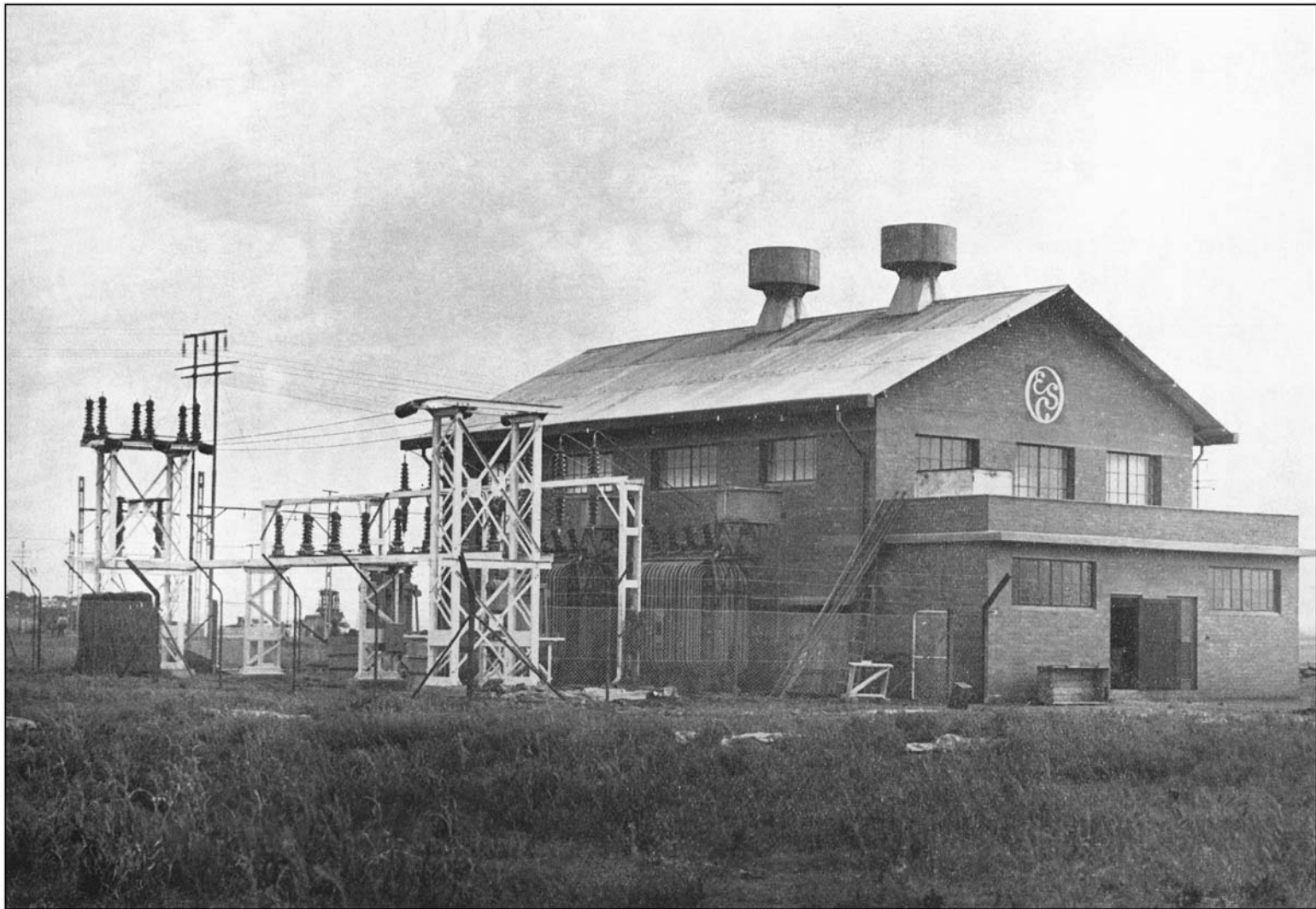
The total units sold for all purposes (including railway traction) in 1927 was 104,206,235, at an average cost of 0·822d. per unit, and the corresponding figures for 1936 were 171,476,131 units at an average cost of 0·577d.

In order to provide secondary educational facilities at the Government primary school for the children of the employees at Colenso, the employment of an additional teacher for the higher standards is being subsidised by the Commission until such time as the number of children of school-going age in the township has reached the minimum laid down by the Education Department to qualify for the provision of such facilities by the Department.

The policy of employing white labour at the Colenso Power Station for certain unskilled work previously performed by natives, which was introduced during the economic depression in 1931, is being continued; but during the year the number of changes increased considerably, due mostly to the men obtaining more remunerative employment elsewhere, as the result of the general prosperity of the country, and it is becoming increasingly difficult to fill the vacancies that arise from time to time with suitable men.

Educational
Facilities.

Unskilled
White
Labour.



Reef Electrification—A typical Mercury-Arc Rectifier Sub-Station.

WITBANK UNDERTAKING.

The Witbank Power Station, which has an installed capacity of 100,000 kilowatts of generating plant, and a total boiler capacity of 1,400,000 lbs. of steam per hour, is inter-connected with the power supply system of The Victoria Falls and Transvaal Power Company, Limited, serving the Witwatersrand area, and is operated by the Company on behalf of the Commission.

The net capital expenditure on the Witbank Undertaking as at 31st December, 1936, was £2,311,317, an increase of £134,728 as compared with the figures for 1935. The increased expenditure was incurred mainly in connection with the provision of substations, etc., for the electrification of the Reef and the Pretoria railway lines.

**Working
Results.**

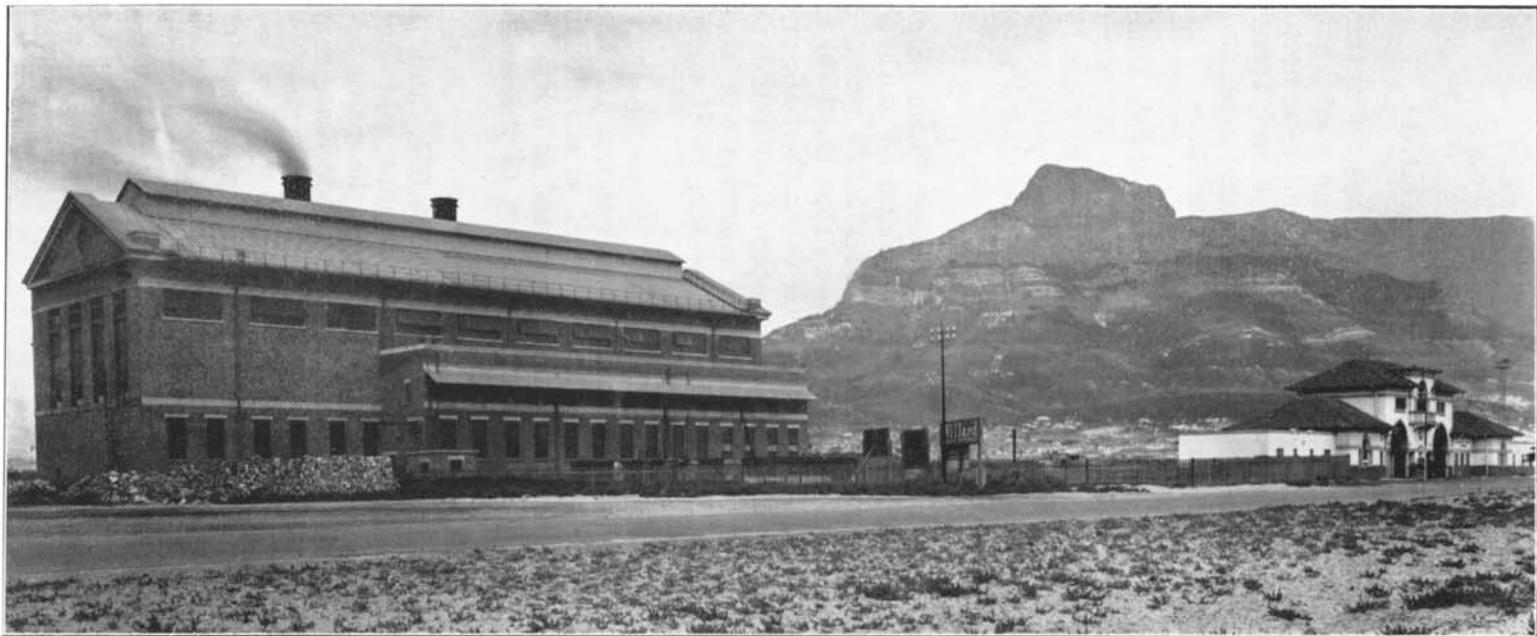
The units sent out from the Witbank Power Station during the year totalled 695,912,729. As compared with the previous year, the output has decreased by 31,275,229 units, or 4·30 per cent. An analysis of the figures shows that the 1936 sales of electricity to The Falls Company, which takes the bulk of the output, decreased by 6·20 per cent. as compared with the sales for the previous year. The sales to all other consumers of electricity from the Witbank Power Station were, however, 19·81 per cent. higher than in 1935.

The maximum hourly demand sent out was 101,008 kilowatts, and the load factor of this station, which is situated in the heart of the Transvaal coal fields, and is operated as a base load station, was 78·4 per cent. The thermal efficiency of the station on units sent out was 16·03 per cent.

The revenue for the year was £369,064, and the working costs £365,092. The average price per unit sold increased from 0·113d. in 1935 to 0·126d. in 1936, but the price to consumers, other than The Falls Company, showed a decrease compared with the price in 1935.

**New
Consumers.**

New consumers with whom arrangements were made during the year for the supply of electricity from the Witbank Undertaking included the Phoenix and the Abor Collieries, and a Mill at Kendal. Altogether there were 42 new connections to the system, bringing the total number of consumers at the end of 1936 up to 635.



Salt River Power Station, Capetown, from the Foreshore.

CAPETOWN UNDERTAKING.

The two new high-pressure 100,000 lbs./hour boilers, which were in course of installation in the Salt River Power Station at the date of the previous Report, were brought into service in June, 1936, to replace two of the original 60,000 lbs./hour low-pressure boilers.

The plant installed at the Salt River Power Station now comprises two 60,000 lbs./hour and six 100,000 lbs./hour boilers; three 10,000 kilowatt and three 20,000 kilowatt turbo generators, and a 300 kilowatt house set.

The net capital expenditure on the Undertaking as at 31st December, 1936, was £2,292,094.

The units sent out from the Salt River Power Station during the year totalled 87,400,887, excluding the units supplied to the Capetown Corporation under the pooling agreement, and shows an increase of 8·12 per cent. over the previous year.

The maximum half-hourly demand sent out was 57,600 kilowatts, and the load factor 51·8 per cent. The thermal efficiency of the Salt River Power Station on units sent out was 21·7 per cent. This high efficiency was due to the fact that the Salt River Power Station, which contains more efficient plant than the Dock Road Power Station, was operated as the base load station.

The revenue for the year was £290,625, and the working costs £288,836, which includes a proportion of the pooled costs of the Salt River and Dock Road Power Stations, which are interconnected. The average price per unit to all consumers decreased from 0·822d. in 1935 to 0·804d. in 1936.

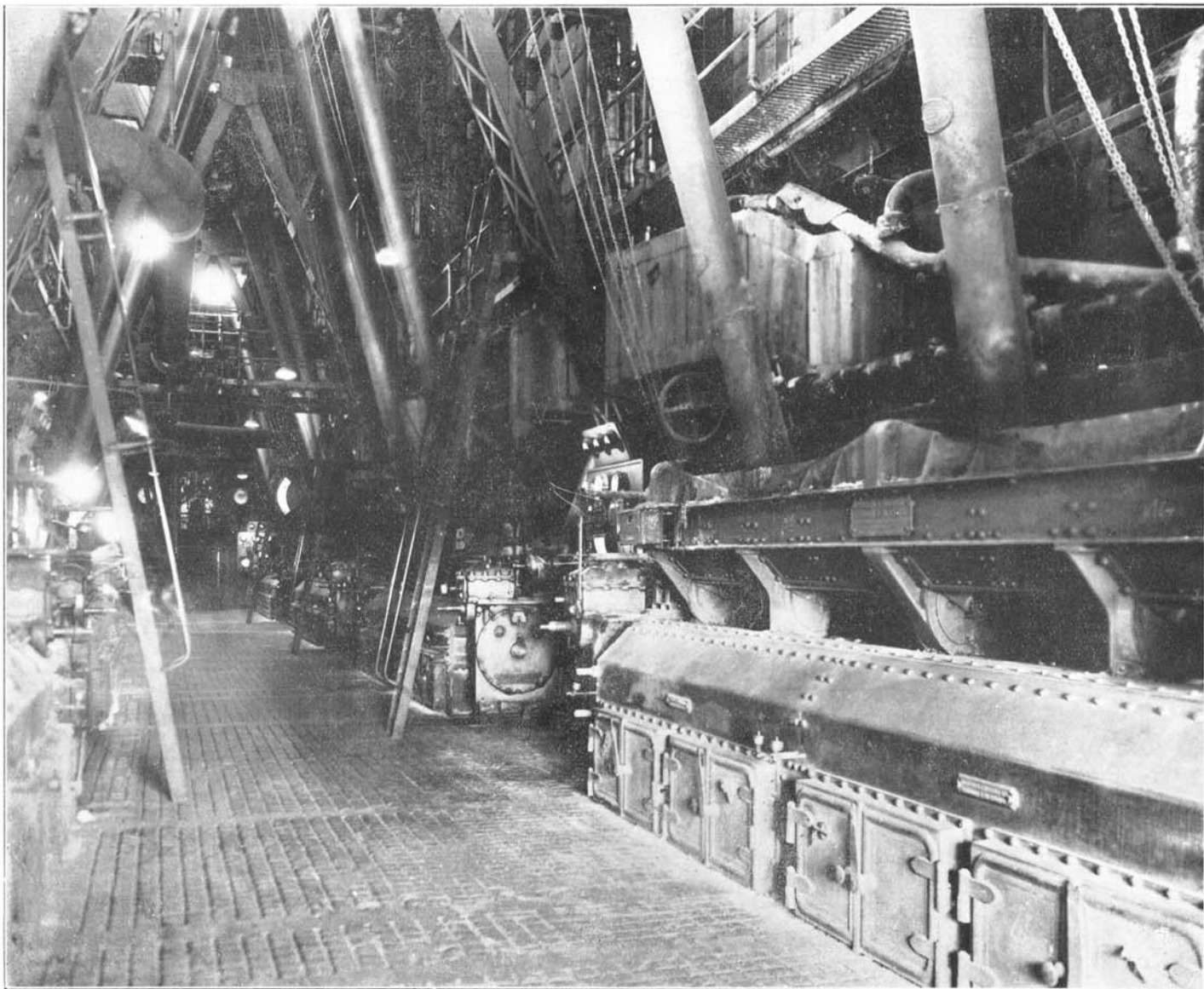
Arrangements were made during 1936 to establish farm supply schemes in the districts of Blaauwvlei (near Wellington) and Brackenfel, and to supply additional farmers in the areas of Durbanville, Fransch Hoek and Vlottenberg.

The total number of farms connected to the system of the Commission's Capetown Undertaking at 31st December, 1936, was 208, and the total number of consumers of all classes supplied by the Undertaking at that date was 3,272, or 507 more than the previous year.

Salt River
Power
Station
Extensions.

Working
Results.

New
Consumers.



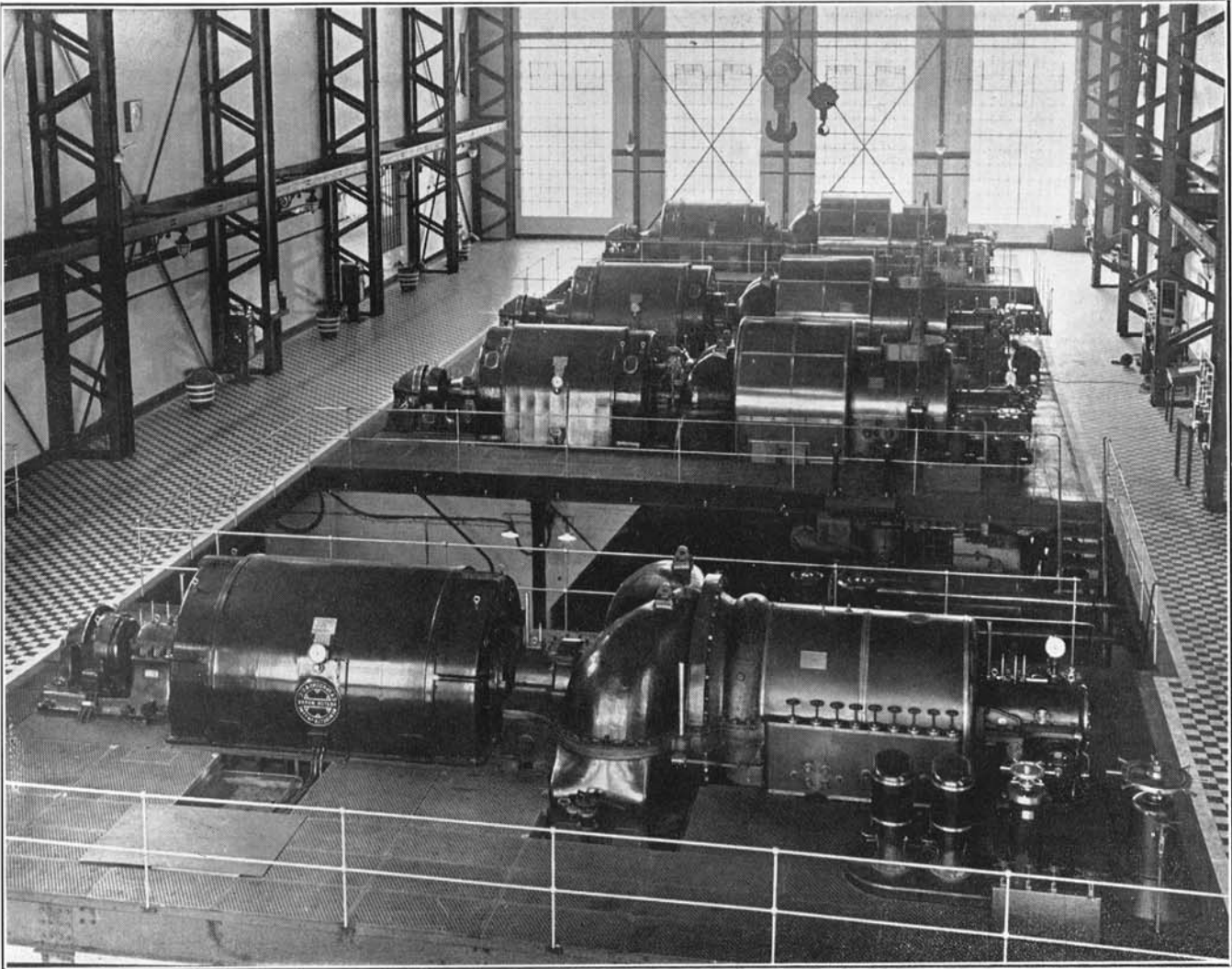
Salt River Power Station—Firing-Aisle of the Boiler House, showing the recent extension of the Boiler Plant,

Closing
Down of
Sea Point
Line: Dead
Assets.

The Commission is pleased to report that, with regard to the capital charges raised against the Railway Administration on the value of the assets which became redundant on the closing down of the Sea Point line in 1929, this matter has been settled by the Administration's decision to accept liability for the expenditure in respect of the dead assets, amounting to £38,269, which the Administration has refunded to the Commission.

Table Bay
Power
Station.

The construction of the Capetown Corporation's new Table Bay Power Station, which will replace the existing Dock Road Power Station, and will be inter-connected and operated in parallel with the Salt River Power Station under the pooling agreement between the Commission and the Corporation, is proceeding rapidly. This station was designed for an initial installation of two 40,000 kilowatt turbo-alternator sets and five 230,000 lbs./hour boilers; but in view of the rapid growth of the load on both the Corporation's and the Commission's systems, it was decided in September, 1936, to proceed immediately with the installation of an additional 40,000 kilowatt turbo-alternator set and another 230,000 lbs./hour boiler.



DURBAN UNDERTAKING.

The growth of the load on the Durban Undertaking has been steadily maintained, and arrangements were concluded in November, 1936, with the Durban Corporation, whereby an additional 30,000 kilowatt turbo-alternator set and two boilers of an evaporative capacity of 120,000 lbs. of steam per hour each will be installed at Congella in time to meet the winter peak in 1938. This installation will take up all the remaining space in the original station buildings, and is expected to cope with the increased demands up to 1942. Including this extension the Congella Power Station will have an installed capacity of 98,000 kilowatts of generating plant.

The Commission has decided to adopt a new system of ash extraction by electrical precipitation, in conjunction with the two boilers now on order, as it has been found that, while the spraying system installed in connection with the existing boilers largely overcame the nuisance caused by the emission of the finer particles of ash resulting from the combustion of powdered coal, the moist gases set up corrosion in the steel stacks which were erected before the spray chambers were decided upon. Coatings of various anti-corrosive compositions were applied to the inside of the stacks, but the corrosion was arrested only after the stacks were lined with gunite, over which a silicate coating was applied. It is expected that the new system of ash extraction will not only obviate the corrosion trouble in the new stacks, but will also further reduce the discharge of fly ash from these chimneys.

The net capital expenditure on the Undertaking as at 31st December, 1936, was £1,121,291.

The units sent out from the Congella Power Station during the year totalled 170,061,480, an increase of 13·6 per cent. over the previous year. The maximum half-hourly demand sent out was 44,467 kilowatts, and the load factor 43·5 per cent. The thermal efficiency of the power station on units sent out was 19·3 per cent.

The revenue for the year was £247,185, and the working costs £244,971. The average price per unit sold decreased from 0·363d. in 1935 to 0·347d. in 1936.

**New
Consumers.**

During the period under review arrangements were made to supply electricity from the South Coast transmission system of the Commission's Durban Undertaking to new consumers at Park Rynie and Umzinto.

The total number of consumers connected to the Commission's reticulation systems at Renishaw, Scottburgh, and Umkomaas at 31st December, 1936, was 312, an increase of 92 compared with the number at the end of 1935.

SABIE UNDERTAKING.

The Sabie Undertaking comprises a hydro-electric power station situated on the Sabie River, in a gorge about eight miles downstream from Sabie Township, with an installed capacity of 1,350 kilowatts, and a 22kV. transmission line from the Power Station to a substation in the township. The whole output of the Undertaking is supplied to two gold mining companies operating in the district.

The net capital expenditure on the Undertaking, as at 31st December, 1936, was £96,145.

The units sent out from the station during the year totalled 7,287,000, a decrease of 2·65 per cent. as compared with the previous year.

The revenue for the year was £13,905, and the working costs £13,546.

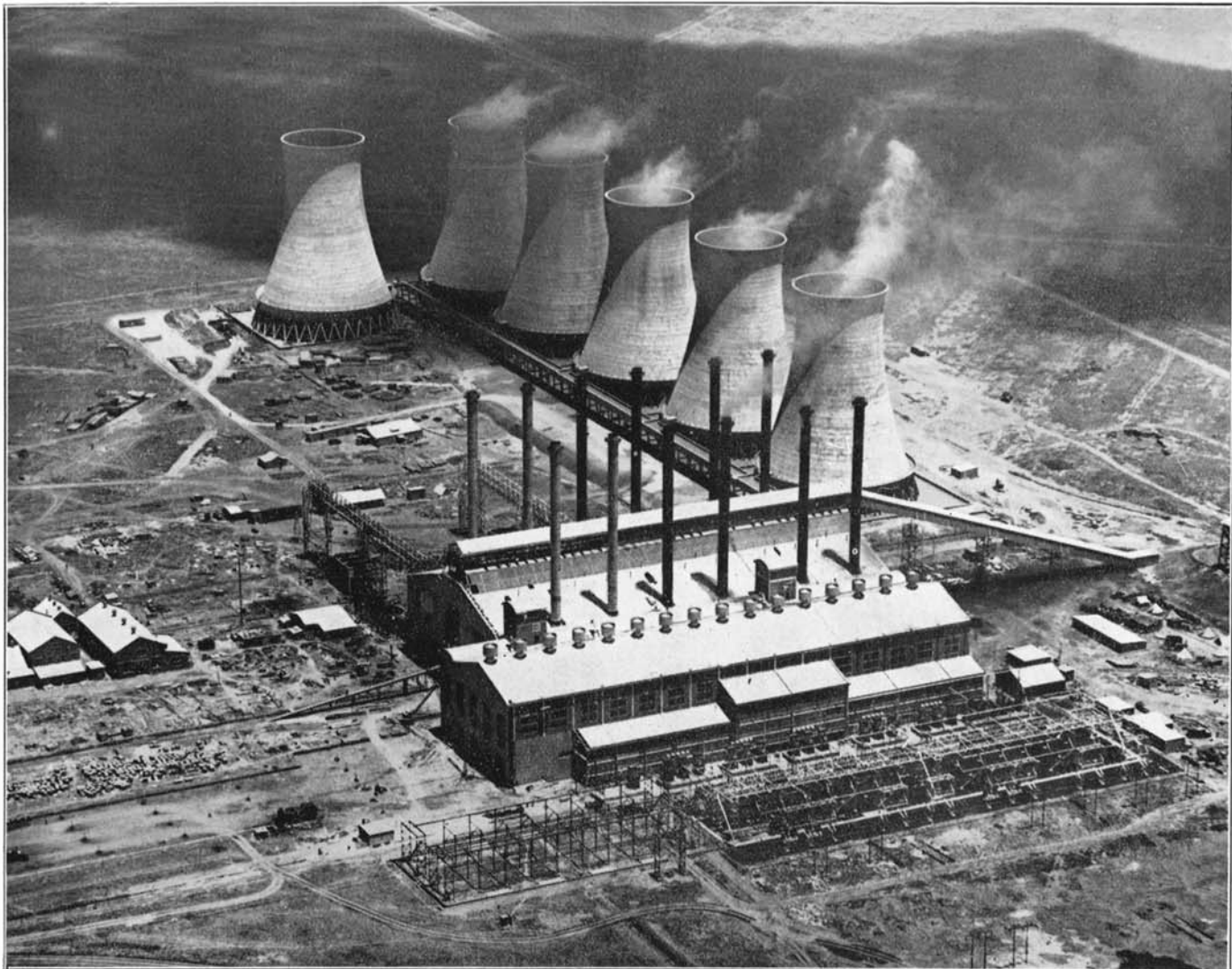
The average price per unit increased from 0·450d. in 1935 to 0·485d. in 1936, due to the lower output.

RAND EXTENSION UNDERTAKING.

The Rand Extension Undertaking comprises a 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 Company.

The net capital expenditure on the Undertaking, as at 31st December, 1936, was £244,341.

The total working costs, amounting to £10,926, in 1936, in respect of the Undertaking, were recovered by the Commission from The Falls Company.



Aerial View of Klip Generating Station—January, 1937.

KLIP GENERATING STATION UNDERTAKING.

Power
Station
Extensions.

Originally designed for an initial installation of 106,000 kilowatts, capable of extension to a capacity of 350,000 kilowatts, the Klip Power Station is, as a result of the enormous increase in the demand for power for gold mining purposes, now being extended to accommodate 424,000 kilowatts of generating plant.

Four 33,000-kilowatt generating sets were brought into service during the year, the first of these being started on its career in March, 1936, by Mrs. H. J. van der Bijl, at the official opening of the station.

The Klip Power Station, which, up to the end of 1936, had fed 556,997,155 units into the Witwatersrand grid system of The Victoria Falls and Transvaal Power Company, Limited, and the Commission, is being operated by The Falls Company on behalf of the Commission.

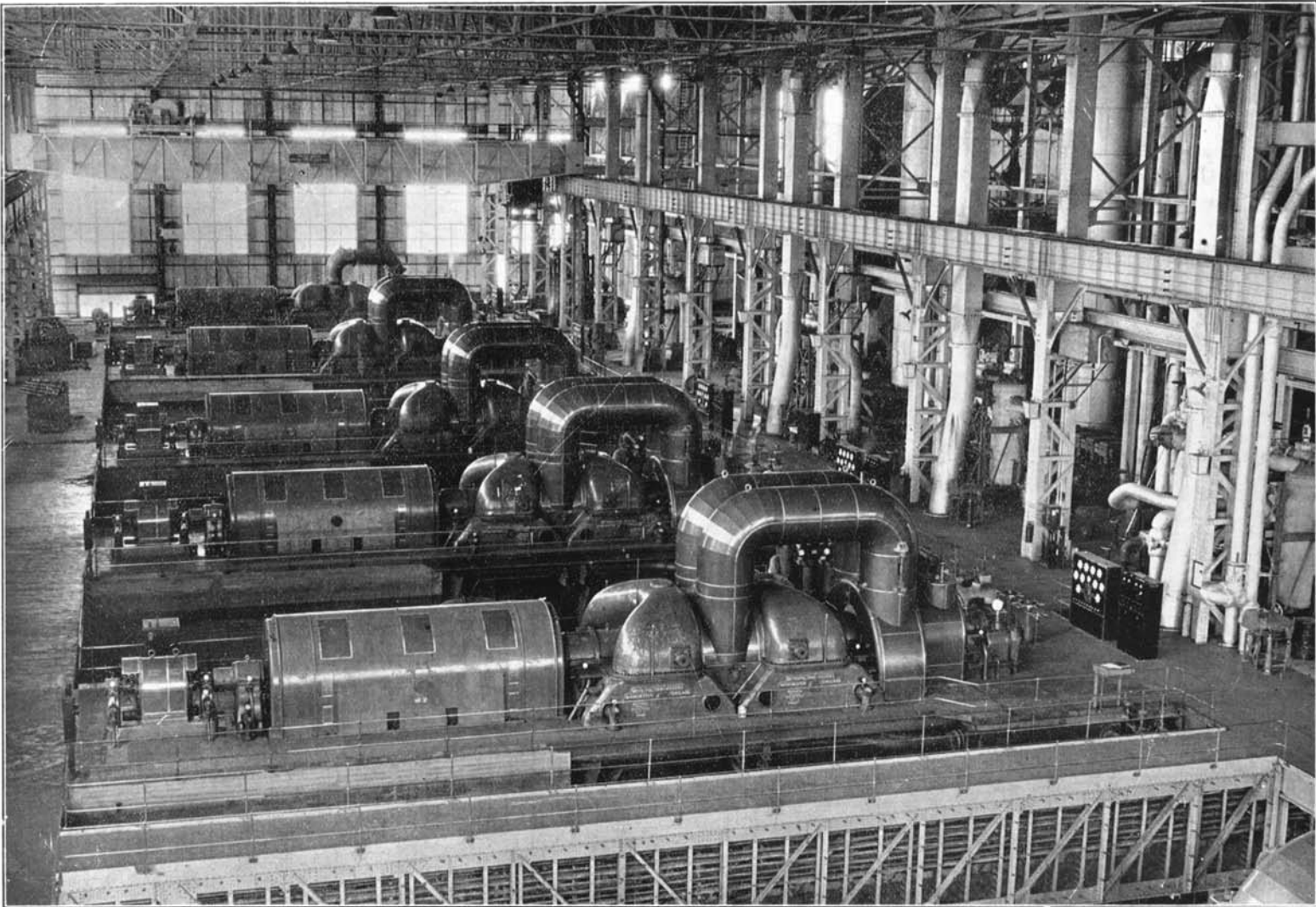
Six cooling towers, of the hyperbolic type, 220 feet high and 175 feet in diameter at the base, and each capable of cooling 2,000,000 gallons of water per hour, have been erected. When the power station has been completed there will be ten of these towers.

In order to secure the additional quantity of water required for the extended station, and to provide for probable future requirements, the Commission has undertaken to contribute £81,000 towards the cost of the Vaalbank Dam, now being built by the Government, for the right in perpetuity to abstract an additional 12,000,000 gallons of water per day.

The net capital expenditure on the Klip Generating Station Undertaking, as at 31st December, 1936, was £3,014,439.

Working
Results.

The maximum hourly demand sent out was 132,180 kilowatts; load factor 48 per cent.; thermal efficiency of the station on units sent out 20·3 per cent.; and the average price per unit sold 0·087d.



Klip Generating Station—Interior of Turbine House—February, 1937.

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, 1936, 325 reports and 153 supplementary reports and reports on tenders had been submitted.

During the year 1936 the following schemes were reported on by the Commission:—

TRANSVAAL.

New Scheme.

Christiana.
Kempton Park.
Potgietersrust.

Extension.

Benoni.
Bloemhof.
Nelspruit.
Rustenburg.
Standerton.

Tenders.

Bloemhof.
Kempton Park.
Schweizer Reneke.
Standerton.

NATAL.

Harding.

O.F.S.

Reddersburg.

Bethlehem.
Clocolan.
Ladybrand.
Senekal.

Bloemfontein.
Clocolan.
Hoopstad.
Ladybrand.
Senekal.
Theunissen.
Wepener.

CAPE.

Alexandria.
Butterworth.
Calitzdorp.
Clanwilliam.
Idutywa.
Prince Albert.
Sutherland
Willowmore.

Beaufort West.
Burghersdorp.
Cathcart.
Ceres.
Cradock.
Elliot.
George.
Hermanus.
Humansdorp.
Middelburg.
Montagu.
Somerset East.
Sterkstroom.
Wolseley.

Beaufort West.
Calitzdorp.
Clanwilliam.
Cradock.
George.
Hermanus.
Idutywa.
Middelburg.
Prieska.
Prince Albert.
Willowmore.

Of the total of 325 Municipal electricity supply schemes reported upon by the Commission up to the end of the year 1936, 130 were new schemes.

ANNEXURES.

The Commission submits for the year 1936, 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, £500,000 Loan.

Account No. 2.—Redemption Fund Account, £2,500,000 Loan.

Account No. 3.—Redemption Fund Account, £6,750,000 Loan.

Account No. 4.—Redemption Fund Account, £2,500,000 Loan.

Account No. 5.—Redemption Fund Account, £2,000,000 Loan.

Account No. 6.—Reserve Fund Account.

Revenue and Expenditure Accounts in respect of:—

Account No. 7.—Natal Central Undertaking.

Account No. 8.—Witbank Undertaking.

Account No. 9.—Capetown Undertaking.

Statement of Pooled Costs—Salt River and Dock Road Power Stations.

Account No. 10.—Durban Undertaking.

Account No. 11.—Sabie Undertaking.

Account No. 12.—Klip Generating Station Undertaking.

Account No. 13.—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, 1936.

Statement No. 2.—Summary of principal plant and equipment in course of installation or on order as at 31st December, 1936.

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 1936.

Statement No. 4.—Units sold to all consumers during the past 11 years.

Statement No. 5.—Power Station Statistics—1936.

Statement No. 6.—Particulars of coal used at the Commission's Steam-raising Power Stations.

ANNEXURE " C. "

Union Statistics relating to the production and distribution of electricity. This information, which was extracted from the 1934/35 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,

A handwritten signature in black ink, reading "J. Guander Bijl". The signature is written in a cursive style and is underlined with a single horizontal line.

CHAIRMAN.

ANNEXURE " A."

THE REPORT OF THE AUDITORS.

Johannesburg,
May 18th, 1937.

The Chairman and Members,
Electricity Supply Commission,
Johannesburg.

GENTLEMEN,

We have completed the audit of the books and accounts for the year ended 31st December, 1936, and have to report as follows:—

REDEMPTION FUND.

In accordance with terms of the Schedule to the Electricity Act the Commission has established separate sections of the Fund relating to the various outstanding loans.

The method adopted by the Commission of providing for redemption of portions of loans in advance of the statutory requirements creates an obligation to maintain the various sections of the Fund at higher amounts than is contemplated by Clause 16 of the Schedule to the Act.

After investigation of the position of each loan we are satisfied that on a $3\frac{1}{2}$ per cent. interest basis not only has an adequate sinking fund been provided to redeem each loan at maturity but that the various sections of the Redemption Fund are sufficient to cover the excess obligations of the Fund in view of the conservative and shorter terms of redemption being in many cases adopted by the Commission.

In the case of Loan No. 7 the final payments by stockholders were only due on December 31st, 1936. Application to the Minister to fix a date from which redemption of this loan shall commence has not yet been made. As certain funds of this loan were, however, expended on works in beneficial operation prior to December 31st, 1936, a small sum in respect of such works has been contributed during the year to the section of the Redemption Fund applicable to this loan.

HEAD OFFICE ADMINISTRATION AND GENERAL EXPENSES,
INCLUDING PUBLICITY.

ENGINEERING EXPENSES.

The gross amount of this expenditure shows an increase compared with the previous year. Against this has been set off or credited:—

- (1) Construction fees accruing to the Commission in connection with the Klip and Rand Extension Undertakings in terms of agreements with The Victoria Falls and Transvaal Power Co. Ltd.

- (2) A sum being part of an amount regarded as a construction fee in connection with Escom House, Johannesburg.
- (3) Other amounts transferred to cost of Capital Works at Undertakings for services of Head Office Staff.
- (4) Other amounts recoverable or chargeable to Revenue Account.

The expenditure so credited in (1), (2) and (3) above has been rightly capitalised.

The proportion of the net expenditure charged to Witbank (Power Station), Klip and Rand Extension Undertakings is determined by agreement with The Victoria Falls and Transvaal Power Co. Ltd. The remainder of the expenditure has been apportioned by the Commission between the other Undertakings on a basis considered equitable. We have no reason to take exception to this basis of apportionment which has been changed during 1936.

GENERAL.

As the result of our audit of the Books and Accounts of the Commission for the year 1936, 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 results of trading.
- (c) Due provision has been made for the redemption and repayment of moneys borrowed.
- (d) The value of the 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,

B. HALSEY.

ALEX. AIKEN & CARTER.

ANNEXURE " A. "

THE REPORT OF THE AUDITORS.

Johannesburg,
May 18th, 1937.

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INCLUDING PUBLICITY.

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- (d) The value of the 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,

B. HALSEY.

ALEX. AIKEN & CARTER.

Electricity Supply Commission.

SCHEDULE OF EXPENDITURE ON CAPITAL ACCOUNT to 31st December, 1936.

Expenditure in connection with Electricity Undertakings.	Total to 31st December, 1935.	Year ended 31st December, 1936.	Total to 31st December, 1936.
NATAL CENTRAL UNDERTAKING:			
Land and Rights	£16,860 4 2	£3,235 12 3	£20,095 16 5
Buildings and Civil Works	755,176 1 7	26,465 13 2	781,641 14 9
Machinery and Plant	2,973,245 10 1	205,301 16 1	3,178,547 6 2
	3,745,281 15 10	235,003 1 6	3,980,284 17 4
Provision made prior to Financial Adjustments Act, 1930, for repayment of Advances, appropriated in reduction of Capital Expenditure ...	Cr. 123,650 1 10	—	Cr. 123,650 1 10
	£3,621,631 14 0	£235,003 1 6	£3,856,634 15 6
WITBANK UNDERTAKING:			
Land and Rights	£9,221 3 2	£257 7 10	£9,478 11 0
Buildings and Civil Works	577,569 3 7	20,140 13 4	597,709 16 11
Machinery and Plant	1,693,257 8 6	114,330 1 10	1,807,587 10 4
	2,280,047 15 3	134,728 3 0	2,414,775 18 3
Net Revenue during Construction ...	Cr. 103,458 8 4	—	Cr. 103,458 8 4
	£2,176,589 6 11	£134,728 3 0	£2,311,317 9 11
CAPETOWN UNDERTAKING:			
Land and Rights	£22,733 13 4	£321 7 8	£23,055 1 0
Buildings and Civil Works	687,745 14 2	742 0 6	688,487 14 8
Machinery and Plant	1,496,844 13 1	88,725 15 0	1,585,570 8 1
	2,207,324 0 7	89,789 3 2	2,297,113 3 9
Net Revenue during Construction ...	Cr. 5,019 2 1	—	Cr. 5,019 2 1
	£2,202,304 18 6	£89,789 3 2	£2,292,094 1 8
DURBAN UNDERTAKING:			
Land and Rights	£29,822 2 4	Cr. £11 6 0	£29,810 16 4
Buildings and Civil Works	354,265 9 8	4,415 7 2	358,680 16 10
Machinery and Plant	720,029 2 9	27,892 4 0	747,921 6 9
	1,104,116 14 9	32,296 5 2	1,136,412 19 11
Net Revenue during Construction ...	Cr. 15,121 15 4	—	Cr. 15,121 15 4
	£1,088,994 19 5	£32,296 5 2	£1,121,291 4 7
SABIE UNDERTAKING:			
Land and Rights	£510 0 0	—	£510 0 0
Buildings and Civil Works	65,458 1 8	—	65,458 1 8
Machinery and Plant	39,301 7 5	—	39,301 7 5
	105,269 9 1	—	105,269 9 1
Net Revenue during Construction ...	Cr. 9,124 15 10	—	Cr. 9,124 15 10
	£96,144 13 3	—	£96,144 13 3
KLIP GENERATING STATION UNDERTAKING:			
Land and Rights	£3,108 13 3	—	£3,108 13 3
Buildings and Civil Works	600,304 1 6	£295,509 15 8	895,813 17 2
Machinery and Plant	1,149,215 5 8	966,301 0 7	2,115,516 6 3
	£1,752,628 0 5	£1,261,810 16 3	£3,014,438 16 8
RAND EXTENSION UNDERTAKING:			
Land and Rights	£407 7 9	£434 2 9	£841 10 6
Machinery and Plant	153,425 6 9	90,074 9 5	243,499 16 2
	£153,832 14 6	£90,508 12 2	£244,341 6 8
HEAD OFFICE:			
Land	£59,585 3 0	—	£59,585 3 0
Building and Equipment	82,398 13 11	£217,158 9 7	299,557 3 6
	£141,983 16 11	£217,158 9 7	£359,142 6 6
SUMMARY:			
Land and Rights	£142,248 7 0	£4,237 4 6	£146,485 11 6
Buildings and Civil Works	3,122,917 6 1	584,431 19 5	3,687,349 5 6
Machinery and Plant	8,225,318 14 3	1,492,625 6 11	9,717,944 1 2
	11,490,484 7 4	2,061,294 10 10	13,551,778 18 2
Net Revenue during Construction ...	Cr. 132,724 1 7	—	Cr. 132,724 1 7
Provision made prior to Financial Adjustments Act, 1930, for repayment of Advances, appropriated in reduction of Capital Expenditure ...	Cr. 123,650 1 10	—	Cr. 123,650 1 10
	£11,234,110 3 11	£2,061,294 10 10	£13,295,404 14 9

Electricity Supply Commission.

**STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £500,000 ELECTRICITY
SUPPLY COMMISSION 4½% LOCAL REGISTERED STOCK, 1953/63
(LOAN No. 3) AS AT 31st DECEMBER, 1936.**

£36,750	Electricity Supply Commission 4½% Local Registered Stock, 1953/63	£40,066	2 11
£17,000	Electricity Supply Commission 3¼% Local Registered Stock, 1956/66	16,490	0 0
	Interest Accrued	236	1 8
		£56,792	4 7

**STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £2,500,000 ELECTRICITY
SUPPLY COMMISSION 4½% LOCAL REGISTERED STOCK, 1953
(LOAN No. 4) AS AT 31st DECEMBER, 1936.**

£315,000	Union of South Africa 4½% Local Registered Stock, 1953	£315,000	0 0
£51,200	South African Iron and Steel Industrial Corporation, Limited, 5% Guaranteed First Mortgage Registered Debentures, 1946/71	51,200	0 0
£123,650	Electricity Supply Commission 4½% Local Registered Stock, 1953	123,650	0 0
£102,000	Electricity Supply Commission 3¼% Local Registered Stock 1956/66	98,940	0 0
	Interest Accrued	2,494	9 9
		£591,284	9 9

**STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £6,750,000 ELECTRICITY
SUPPLY COMMISSION 3¼% LOCAL REGISTERED STOCK, 1954/64
(LOAN No. 5) AS AT 31st DECEMBER, 1936.**

£10,000	South African Iron and Steel Industrial Corporation, Limited, 5% Guaranteed First Mortgage Registered Debentures, 1946/71	£9,975	0 0
£46,950	Electricity Supply Commission 4½% Local Registered Stock, 1953/63	46,950	0 0
£291,650	Electricity Supply Commission 3¼% Local Registered Stock, 1954/64	288,864	18 2
£148,000	Electricity Supply Commission 3¼% Local Registered Stock, 1956/66	143,560	0 0
	Interest Accrued	2,793	18 4
		£492,143	16 6

Johannesburg,
31st March, 1937.

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

STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £2,500,000 ELECTRICITY
SUPPLY COMMISSION 3½% LOCAL REGISTERED STOCK, 1959/64
(LOAN No. 6) AS AT 31st DECEMBER, 1936.

£27,150	Electricity Supply Commission 3½% Local Registered Stock, 1959/64	£27,474 5 8
£600	Electricity Supply Commission 4½% Local Registered Stock, 1953	600 0 0
£20,000	Electricity Supply Commission 3½% Local Registered Stock, 1956/66	19,400 0 0
	Interest Accrued	183 15 5
		£47,658 1 1

STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £2,000,000 ELECTRICITY
SUPPLY COMMISSION 3½% LOCAL REGISTERED STOCK, 1956/66
(LOAN No. 7) AS AT 31st DECEMBER, 1936.

£14,500	Electricity Supply Commission 3½% Local Registered Stock, 1956/66	£14,065 0 0
	Interest Accrued	74 11 3
		£14,139 11 3

Johannesburg,
31st March, 1937.

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

Electricity Supply

Dr. Redemption Fund Account for the
in respect of £500,000 Electricity Supply Commission

To Balance as per Balance Sheet	...	...	...		£54,457 6 10
Natal Central Undertaking	...	...	...	£171 3 2	
Witbank Undertaking	...	...	...	274 14 0	
Capetown Undertaking	...	...	...	36,372 18 7	
Durban Undertaking	...	...	...	17,638 11 1	
					£54,457 6 10

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

Johannesburg,
31st March, 1937.

Commission.

Year ended 31st December, 1936,
 4½% Local Registered Stock 1953/63 (Loan No. 3).

Cr.

By Balance at 31st December, 1935, brought forward	...	...	...		£37,510 17 3
Natal Central Undertaking	...	...	...	£113 5 11	
Witbank Undertaking	...	...	...	175 2 4	
Capetown Undertaking	...	...	...	24,323 1 2	
Durban Undertaking	...	...	...	12,899 7 10	
					15,633 12 0
,, Amounts Contributed during the Year out of Revenue					15,633 12 0
Natal Central Undertaking	...	...	...	53 18 0	
Witbank Undertaking	...	...	...	93 9 1	
Capetown Undertaking	...	...	...	11,198 11 3	
Durban Undertaking	...	...	...	4,287 13 8	
					1,312 17 7
,, Interest Earned on Investments					1,312 17 7
Interest Earned	...	...	...	1,790 14 8	
Less—Appropriated in reduction of Investments	...	...	Premium on Investments	477 17 1	
					3 19 3
Natal Central Undertaking	...	...	...	3 19 3	
Witbank Undertaking	...	...	...	6 2 7	
Capetown Undertaking	...	...	...	851 6 2	
Durban Undertaking	...	...	...	451 9 7	
					£54,457 6 10

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 18th May, 1937.

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

Electricity Supply

Dr. Redemption Fund Account for the
in respect of £2,500,000 Electricity Supply Commission

TO Balance as per Balance Sheet	...	...	...	...	...	...	...	...	...	£574,206	3	1
Natal Central Undertaking	...	...	...	...	...	...	...	...	...	£6,735	19	10
Witbank Undertaking	...	...	...	...	...	...	...	...	...	388,696	17	5
Capetown Undertaking	...	...	...	...	...	...	...	...	...	13,760	19	11
Durban Undertaking	...	...	...	...	...	...	...	...	...	137,678	0	11
Sabie Undertaking	...	...	...	...	...	...	...	...	...	26,365	4	3
Head Office	...	...	...	...	...	...	...	...	...	969	0	9

£574,206 3 1

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

Johannesburg,
31st March, 1937.

Commission.

Year ended 31st December, 1936,
4½% Local Registered Stock 1953 (Loan No. 4).

Cr.

By Balance at 31st December, 1935, brought forward	...	...	...	...	...	...	...	...	...	£482,691	18	11
Natal Central Undertaking	...	...	...	...	...	...	...	...	...	£3,051	8	3
Witbank Undertaking	...	...	...	...	...	...	...	...	...	336,374	6	9
Capetown Undertaking	...	...	...	...	...	...	...	...	...	6,940	18	3
Durban Undertaking	...	...	...	...	...	...	...	...	...	112,844	3	11
Sabie Undertaking	...	...	...	...	...	...	...	...	...	22,713	5	4
Head Office	...	...	...	...	...	...	...	...	...	767	16	5
„ Amounts Contributed during the Year out of Revenue												
Natal Central Undertaking	...	...	...	...	...	...	...	...	...	3,501	18	6
Witbank Undertaking	...	...	...	...	...	...	...	...	...	37,794	17	7
Capetown Undertaking	...	...	...	...	...	...	...	...	...	6,414	16	2
Durban Undertaking	...	...	...	...	...	...	...	...	...	19,801	7	8
Sabie Undertaking	...	...	...	...	...	...	...	...	...	2,643	7	9
Head Office	...	...	...	...	...	...	...	...	...	166	9	6
„ Nett Proceeds of Sales of Fixed Property												
Witbank Undertaking	...	...	...	...	...	...	...	...	...	40	6	7
Durban Undertaking	...	...	...	...	...	...	...	...	...	54	1	7
Sabie Undertaking	...	...	...	...	...	...	...	...	...	28	11	0
„ Interest Earned on Investments												
Interest Earned	...	...	...	...	...	...	...	...	...	22,464	2	1
Less—Premium on Investments written off	...	...	...	...	...	...	...	...	...	1,395	14	3
Natal Central Undertaking	...	...	...	...	...	...	...	...	...	182	13	1
Witbank Undertaking	...	...	...	...	...	...	...	...	...	14,487	6	6
Capetown Undertaking	...	...	...	...	...	...	...	...	...	405	5	6
Durban Undertaking	...	...	...	...	...	...	...	...	...	4,978	7	9
Sabie Undertaking	...	...	...	...	...	...	...	...	...	980	0	2
Head Office	...	...	...	...	...	...	...	...	...	34	14	10

£574,206 3 1

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 18th May, 1937.

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

Electricity Supply

Dr. Redemption Fund Account for the
in respect of £2,000,000 Electricity Supply Commission

To	Balance as per Balance Sheet	...	...	...	£291 6 0
	Natal Central Undertaking	...	...	...	£3 0 7
	Capetown Undertaking	...	...	...	27 15 10
	Klip Generating Station Undertaking	...	...	...	152 0 4
	Rand Extension Undertaking	...	...	...	108 9 3
					£291 6 0
					£291 6 0

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

Johannesburg,
31st March, 1937.

Account No. 5.

Commission.

Four Months ended 31st December, 1936, Cr.
3½% Local Registered Stock 1956/66 (Loan No. 7).

By	Amounts contributed during the Year out of Revenue	...	...	...	£290 14 0
	Natal Central Undertaking	...	...	...	£3 0 7
	Capetown Undertaking	...	...	...	27 14 8
	Klip Generating Station Undertaking	...	...	...	151 13 8
	Rand Extension Undertaking	...	...	...	108 5 1
	„ Interest Earned on Investments	...	...	...	12 0
	Capetown Undertaking	...	...	...	1 2
	Klip Generating Station Undertaking	...	...	...	6 8
	Rand Extension Undertaking	...	...	...	4 2
					£290 14 0
					£291 6 0

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 18th May, 1937.

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

Electricity Supply

Dr.

Reserve Fund Account for the

To Expenditure during the Year on Replacements and Betterment	£	s	d
Natal Central Undertaking	£4,584	13	4
Witbank Undertaking	6,949	15	5
Capetown Undertaking	2,453	19	4
Durban Undertaking	75	0	0
„ Balance as per Balance Sheet	945,175	7	10
Natal Central Undertaking	413,220	15	9
Witbank Undertaking	216,453	6	1
Capetown Undertaking	186,501	19	7
Durban Undertaking	105,727	8	6
Sabie Undertaking	8,450	17	9
Klip Generating Station Undertaking	13,070	6	1
Rand Extension Undertaking	1,750	14	1
	£959,238	15	11

Johannesburg,
31st March, 1937.

Account No. 6.

Commission.

Year ended 31st December, 1936.

Cr.

By Balance at 31st December, 1935, brought forward	£786,220	16	7
Natal Central Undertaking	£365,359	16	7
Witbank Undertaking	180,254	13	11
Capetown Undertaking	146,327	10	5
Durban Undertaking	86,482	8	10
Sabie Undertaking	7,514	3	10
Rand Extension Undertaking	282	3	0
„ Amounts set aside during the Year as per Revenue Accounts			137,279
Natal Central Undertaking	36,000	0	0
Witbank Undertaking	35,000	0	0
Capetown Undertaking	36,000	0	0
Durban Undertaking	15,300	0	0
Sabie Undertaking	600	0	0
Klip Generating Station Undertaking	12,940	9	9
Rand Extension Undertaking	1,439	2	11
„ Interest Earned on Investments			35,738
			£959,238

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

Electricity Supply

NATAL CENTRAL

Revenue Account for the Year

Dr.					Cr.
	Generation of Electricity.				
To Operation—					
Fuel	£76,545	9	5		
Water, Oil, Waste and Stores	1,051	18	3		
Salaries and Wages	17,400	5	1		
Other Expenses	87	17	9		
„ Maintenance—					
Stores	6,955	12	2		
Salaries and Wages	9,443	16	3		
Other Expenses	641	12	3		
				£112,126	11 2
„ Electricity Purchased				302	4 11
	Distribution of Electricity.				
„ Operation and Maintenance—					
Stores	3,198	15	7		
Salaries and Wages	15,378	13	2		
Other Expenses	3,802	3	7		
				22,379	12 4
	General Expenses.				
„ Local Administration and Technical Management	6,402	11	6		
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	10,714	15	1		
„ Investigations and Development Expenses	54	4	8		
„ Head Office Administration and General Expenses including Publicity	9,080	1	6		
„ Engineering Expenses	2,864	17	9		
				29,116	10 6
				163,924	18 11
„ Interest				138,458	17 2
„ Redemption Fund—					
Loan No. 3	53	18	0		
Loan No. 4	3,501	18	6		
Loan No. 5	69,677	17	3		
Loan No. 7	3	0	7		
				73,236	14 4
„ Repayment Volksrust Loan				489	11 2
„ Amount set aside to Reserve Fund				36,000	0 0
„ Balance carried down				718	4 0
				£412,828	5 7
To Balance as per Balance Sheet				£16,173	6 0
				£16,173	6 0

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Dr.					Cr.
	By Sales of Electricity—				
Traction Supplies	£325,839	14	11		
Bulk Supplies	55,140	6	7		
Industrial Supplies	18,101	7	5		
Domestic and Lighting Supplies	9,639	17	10		
				£408,721	6 9
„ Other Revenue					4,106 18 10
				£412,828	5 7
By Balance at 31st December, 1935, brought forward				£15,455	2 0
„ Balance brought down				718	4 0
				£16,173	6 0

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

WITBANK

Dr. Revenue Account for the Year

Generation of Electricity.			
To Operation—			
Fuel	£72,817	5	10
Water, Oil, Waste and Stores	5,686	3	2
Salaries and Wages	25,269	2	3
Other Expenses	1,289	16	8
„ Maintenance—			
Stores	11,710	0	8
Salaries and Wages	12,696	15	10
Other Expenses	11,256	14	3
		£140,725	18 8
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores	2,614	6	8
Salaries and Wages	3,644	7	2
Other Expenses	613	13	4
		6,872	7 2
General Expenses.			
„ Local Administration and Technical Management	6,966	7	1
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	9,504	19	5
„ Administration, Engineering and General Expenses of Operating Party (The Victoria Falls and Transvaal Power Company, Limited)	7,000	0	0
„ Investigations and Development Expenses	33	0	2
„ Head Office Administration and General Expenses, including Publicity	6,153	16	1
„ Engineering Expenses	1,941	12	3
		31,599	15 0
		179,198	0 10
		94,958	5 7
„ Interest			
„ Redemption Fund—			
Loan No. 3	93	9	1
Loan No. 4	37,794	17	7
Loan No. 5	18,049	5	10
		55,937	12 6
„ Amount set aside to Reserve Fund		35,000	0 0
„ Balance carried down		3,972	2 1
		£369,064	1 0
To Balance as per Balance Sheet		£15,458	10 4
		£15,458	10 4

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Sales of Electricity—			
Bulk Supplies	£286,918	12	2
Industrial Supplies	71,705	5	3
Domestic and Lighting Supplies	6,042	2	0
		£364,665	19 5
„ Other Revenue		4,398	1 7
		£369,064	1 0
By Balance at 31st December, 1935, brought forward		£11,486	8 3
„ Balance brought down		3,972	2 1
		£15,458	10 4

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

CAPETOWN

Dr. Revenue Account for the Year

Generation of Electricity.			
To Proportion of Pooled Costs ... (As per attached Statement)	...	£106,668	6 6
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores ...	£2,574	6	11
Salaries and Wages ...	12,879	13	2
Other Expenses ...	4,976	0	3
		20,430	0 4
General Expenses.			
„ Local Administration and Technical Management ...	7,271	7	11
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.) ...	9,644	14	11
„ Head Office Administration and General Expenses, including Publicity ...	7,523	9	9
„ Engineering Expenses ...	2,373	15	4
	26,813	7	11
Less—Charged to Pooled Costs ...	2,795	1	4
		24,018	6 7
		151,116	13 5
„ Interest ...	90,740	4	5
„ Redemption Fund—			
Loan No. 3 ...	11,198	11	3
Loan No. 4 ...	6,414	16	2
Loan No. 5 ...	36,417	9	11
Loan No. 7 ...	27	14	8
„ Amount set aside to Reserve Fund ...	36,000	0	0
	180,798	16	5
Less—Charged to Pooled Costs ...	43,080	3	9
		137,718	12 8
„ Balance carried down ...		1,789	8 6
		£290,624	14 7
To Balance as per Balance Sheet ...		£14,960	10 2
		£14,960	10 2

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Sales of Electricity—				
Traction Supplies ...	£154,051	8	7	
Bulk Supplies ...	30,286	12	4	
Industrial Supplies ...	71,411	8	0	
Domestic and Lighting Supplies ...	31,936	6	6	
		£287,685	15 5	
„ Other Revenue ...	4,367	9	7	
Less—Credited to Pooled Costs ...	1,428	10	5	
				2,938 19 2
				£290,624 14 7
By Balance at 31st December, 1935, brought forward ...		£13,171	1 8	
„ Balance brought down ...		1,789	8 6	
		£14,960	10 2	

Referred to in our Report of 18th May, 1937.

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

Electricity Supply Commission

SALT RIVER AND DOCK

Dr. Statement of Pooled Costs for the Year ended

	Expenditure by Electricity Supply Commission.	Expenditure by City of Capetown.	Pooled Costs.
Pooled Generation of Electricity.			
To Operation and Maintenance—			
Fuel	£195,947 18 11	£18,780 1 9	£214,728 0 8
Water, Oil, Waste and Stores ...	7,555 5 5	2,111 10 6	9,666 15 11
Salaries and Wages	13,435 1 7	11,221 1 5	24,656 3 0
Other Expenses	14,455 12 7	1,821 1 4	16,276 13 11
„ General Expenses (including Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.) ...	2,795 1 4	2,010 4 4	4,805 5 8
„ Interest	22,231 9 5	—	22,231 9 5
„ Redemption Fund	18,393 19 11	—	18,393 19 11
„ Reserve Fund	2,454 14 5	—	2,454 14 5
	£277,269 3 7	£35,943 19 4	£313,213 2 11

Capetown,
31st March, 1937.

and City of Capetown.

ROAD POWER STATIONS.

31st December, 1936, and Allocation thereof. Cr.

By Allocation of Pooled Costs in terms of Agreement—			
Electricity Supply Commission	£106,668 6 6		
City of Capetown	204,705 14 9		
			£311,374 1 3
„ Sundry Revenue—			
Electricity Supply Commission	1,428 10 5		
City of Capetown	410 11 3		
			1,839 1 8
			£313,213 2 11

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

Electricity Supply

DURBAN

Dr. Revenue Account for the Year

Generation of Electricity.			
To Operation—			
Fuel	£92,265 12 5		
Water, Oil, Waste and Stores	1,246 2 7		
Salaries and Wages	13,346 11 9		
Other Expenses	880 8 6		
„ Maintenance—			
Stores	6,514 12 3		
Salaries and Wages	12,972 3 7		
Other Expenses	861 5 9		
„ Electricity Purchased		£128,086 16 10	
		1,251 15 11	
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores	310 12 10		
Salaries and Wages	1,208 19 10		
Other Expenses	370 6 5		
		1,889 19 1	
General Expenses.			
„ Local Administration and Technical Management ...	4,953 2 8		
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	5,060 10 2		
„ Investigations and Development Expenses	511 4 11		
„ Head Office Administration and General Expenses, including Publicity	5,448 0 11		
„ Engineering Expenses	1,718 18 8		
		17,691 17 4	
		148,920 9 2	
		49,349 8 11	
„ Interest			
„ Redemption Fund—			
Loan No. 3	4,287 13 8		
Loan No. 4	19,801 7 8		
Loan No. 5	7,057 5 6		
		31,146 6 10	
„ Sinking Fund	255 5 6		
„ Amount set aside to Reserve Fund	15,300 0 0		
„ Balance carried down	2,213 16 8		
		£247,185 7 1	
To Balance as per Balance Sheet		£10,297 9 9	
		£10,297 9 9	

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December 1936.

Cr.

By Sales of Electricity—			
Bulk Supplies	£241,951 6 3		
Industrial Supplies	682 8 5		
Domestic and Lighting Supplies	4,002 6 10		
		£246,636 1 6	
„ Other Revenue		549 5 7	
		£247,185 7 1	
By Balance at 31st December, 1935, brought forward ...		£8,083 13 1	
„ Balance brought down		2,213 16 8	
		£10,297 9 9	

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

SABIE

Dr. Revenue Account for the Year

Generation of Electricity.				
To Operation—				
Water, Oil, Waste and Stores	...	...	...	£47 0 2
Salaries and Wages	...	...	...	1,738 13 5
,, Maintenance—				
Stores	...	...	...	876 14 7
Salaries and Wages	...	...	...	275 10 1
Other Expenses	...	...	...	135 16 8
			£3,073	14 11
Distribution of Electricity.				
,, Operation and Maintenance—				
Stores	...	...	...	44 3 4
Salaries and Wages	...	...	...	318 14 3
Other Expenses	...	...	...	142 16 11
			505	14 6
General Expenses.				
,, Local Administration and Technical Management				
General Expenses (including Maintenance of Quarters, Insurance, Pension Fund Contributions, etc.)	...	...	...	314 4 0
,, Head Office Administration and General Expenses, including Publicity				
Engineering Expenses	...	...	...	778 5 10
			245	11 3
			1,592	4 1
			5,171	13 6
			4,248	7 5
,, Interest				
,, Redemption Fund—				
Loan No. 4	...	...	...	2,643 7 9
Loan No. 5	...	...	...	882 6 8
			3,525	14 5
,, Amount set aside to Reserve Fund				
			600	0 0
,, Balance carried down				
			358	16 1
			£13,904	11 5
To Balance as per Balance Sheet				
			£1,056	8 3
			£1,056	8 3

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Sales of Electricity—				
Mining Supplies	...	...	...	£13,881 12 5
,, Other Revenue				
			22	19 0
			£13,904	11 5
By Balance at 31st December, 1935, brought forward				
			£697	12 2
,, Balance brought down				
			358	16 1
			£1,056	8 3

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

KLIP GENERATING

Dr. Revenue Account for the Period

GENERATION OF ELECTRICITY.

To Operation—			
Fuel	£76,888	16	7
Water, Oil Waste and Stores	1,662	7	1
Salaries and Wages	12,287	18	7
Other Expenses	1,537	7	7
„ Maintenance—			
Stores	899	4	5
Salaries and Wages	2,622	17	8
Other Expenses	1,105	8	9
	£97,004	0	8

GENERAL EXPENSES.

„ Local Administration and Technical Management	3,576	9	1
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	3,066	13	9
„ Administration, Engineering and General Expenses of Operating Party (The Victoria Falls and Transvaal Power Company, Limited)	6,575	1	9
„ Head Office Administration and General Expenses, including Publicity	2,050	1	6
„ Engineering Expenses	646	16	7
	15,915	2	8
	112,919	3	4
„ Interest	44,803	17	11
„ Redemption Fund—			
Loan No. 6	33,071	14	6
Loan No. 7	151	13	8
	33,223	8	2
„ Amount set aside to Reserve Fund	12,940	9	9
	£203,886	19	2

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

Johannesburg,
31st March, 1937.

Commission.

STATION UNDERTAKING.

10th March to 31st December, 1936.

Cr.

By Sales of Electricity—			
Bulk Supplies	£202,172	16	11
„ Other Revenue	1,714	2	3

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

RAND EXTENSION

Dr. Revenue Account for the Year

	General Expenses.	
To General Expenses (Insurance)	£25 1 0	
„ Head Office Administration and General Expenses, including Publicity	220 16 3	
„ Engineering Expenses	69 13 5	
	£315 10 8	
„ Interest		5,476 4 6
„ Redemption Fund—		
Loan No. 6	3,586 12 1	
Loan No. 7	108 5 1	
	3,694 17 2	
„ Amount set aside to Reserve Fund		1,439 2 11
		£10,925 15 3

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Amount Recovered from The Victoria Falls and Transvaal Power Company, Limited	£10,925 15 3
	£10,925 15 3

Referred to in our Report of 18th May, 1937.

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

Electricity Supply Commission.

SCHEDULE OF EXPENDITURE ON CAPITAL ACCOUNT to 31st December, 1936.

Expenditure in connection with Electricity Undertakings.	Total to 31st December, 1935.	Year ended 31st December, 1936.	Total to 31st December, 1936.
NATAL CENTRAL UNDERTAKING:			
Land and Rights	£16,860 4 2	£3,235 12 3	£20,095 16 5
Buildings and Civil Works	755,176 1 7	26,465 13 2	781,641 14 9
Machinery and Plant	2,973,245 10 1	205,301 16 1	3,178,547 6 2
	3,745,281 15 10	235,003 1 6	3,980,284 17 4
Provision made prior to Financial Adjustments Act, 1930, for repayment of Advances, appropriated in reduction of Capital Expenditure ...	Cr. 123,650 1 10	—	Cr. 123,650 1 10
	£3,621,631 14 0	£235,003 1 6	£3,856,634 15 6
WITBANK UNDERTAKING:			
Land and Rights	£9,221 3 2	£257 7 10	£9,478 11 0
Buildings and Civil Works	577,569 3 7	20,140 13 4	597,709 16 11
Machinery and Plant	1,693,257 8 6	114,330 1 10	1,807,587 10 4
	2,280,047 15 3	134,728 3 0	2,414,775 18 3
Net Revenue during Construction ...	Cr. 103,458 8 4	—	Cr. 103,458 8 4
	£2,176,589 6 11	£134,728 3 0	£2,311,317 9 11
CAPETOWN UNDERTAKING:			
Land and Rights	£22,733 13 4	£321 7 8	£23,055 1 0
Buildings and Civil Works	687,745 14 2	742 0 6	688,487 14 8
Machinery and Plant	1,496,844 13 1	88,725 15 0	1,585,570 8 1
	2,207,324 0 7	89,789 3 2	2,297,113 3 9
Net Revenue during Construction ...	Cr. 5,019 2 1	—	Cr. 5,019 2 1
	£2,202,304 18 6	£89,789 3 2	£2,292,094 1 8
DURBAN UNDERTAKING:			
Land and Rights	£29,822 2 4	Cr. £11 6 0	£29,810 16 4
Buildings and Civil Works	354,265 9 8	4,415 7 2	358,680 16 10
Machinery and Plant	720,029 2 9	27,892 4 0	747,921 6 9
	1,104,116 14 9	32,296 5 2	1,136,412 19 11
Net Revenue during Construction ...	Cr. 15,121 15 4	—	Cr. 15,121 15 4
	£1,088,994 19 5	£32,296 5 2	£1,121,291 4 7
SABIE UNDERTAKING:			
Land and Rights	£510 0 0	—	£510 0 0
Buildings and Civil Works	65,458 1 8	—	65,458 1 8
Machinery and Plant	39,301 7 5	—	39,301 7 5
	105,269 9 1	—	105,269 9 1
Net Revenue during Construction ...	Cr. 9,124 15 10	—	Cr. 9,124 15 10
	£96,144 13 3	—	£96,144 13 3
KLIP GENERATING STATION UNDERTAKING:			
Land and Rights	£3,108 13 3	—	£3,108 13 3
Buildings and Civil Works	600,304 1 6	£295,509 15 8	895,813 17 2
Machinery and Plant	1,149,215 5 8	966,301 0 7	2,115,516 6 3
	£1,752,628 0 5	£1,261,810 16 3	£3,014,438 16 8
RAND EXTENSION UNDERTAKING:			
Land and Rights	£407 7 9	£434 2 9	£841 10 6
Buildings and Civil Works	153,425 6 9	90,074 9 5	243,499 16 2
	£153,832 14 6	£90,508 12 2	£244,341 6 8
HEAD OFFICE:			
Land	£59,585 3 0	—	£59,585 3 0
Building and Equipment	82,398 13 11	£217,158 9 7	299,557 3 6
	£141,983 16 11	£217,158 9 7	£359,142 6 6
SUMMARY:			
Land and Rights	£142,248 7 0	£4,237 4 6	£146,485 11 6
Buildings and Civil Works	3,122,917 6 1	584,431 19 5	3,687,349 5 6
Machinery and Plant	8,225,318 14 3	1,492,625 6 11	9,717,944 1 2
	11,490,484 7 4	2,061,294 10 10	13,551,778 18 2
Net Revenue during Construction ...	Cr. 132,724 1 7	—	Cr. 132,724 1 7
Provision made prior to Financial Adjustments Act, 1930, for repayment of Advances, appropriated in reduction of Capital Expenditure ...	Cr. 123,650 1 10	—	Cr. 123,650 1 10
	£11,234,110 3 11	£2,061,294 10 10	£13,295,404 14 9

Electricity Supply Commission.

**STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £500,000 ELECTRICITY
SUPPLY COMMISSION 4½% LOCAL REGISTERED STOCK, 1953/63
(LOAN No. 3) AS AT 31st DECEMBER, 1936.**

£36,750	Electricity Supply Commission 4½% Local Registered Stock, 1953/63	£40,066	2 11
£17,000	Electricity Supply Commission 3¼% Local Registered Stock, 1956/66	16,490	0 0
	Interest Accrued	236	1 8
		£56,792	4 7

**STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £2,500,000 ELECTRICITY
SUPPLY COMMISSION 4½% LOCAL REGISTERED STOCK, 1953
(LOAN No. 4) AS AT 31st DECEMBER, 1936.**

£315,000	Union of South Africa 4½% Local Registered Stock, 1953	£315,000	0 0
£51,200	South African Iron and Steel Industrial Corporation, Limited, 5% Guaranteed First Mortgage Registered Debentures, 1946/71	51,200	0 0
£123,650	Electricity Supply Commission 4½% Local Registered Stock, 1953	123,650	0 0
£102,000	Electricity Supply Commission 3¼% Local Registered Stock 1956/66	98,940	0 0
	Interest Accrued	2,494	9 9
		£591,284	9 9

**STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £6,750,000 ELECTRICITY
SUPPLY COMMISSION 3¼% LOCAL REGISTERED STOCK, 1954/64
(LOAN No. 5) AS AT 31st DECEMBER, 1936.**

£10,000	South African Iron and Steel Industrial Corporation, Limited, 5% Guaranteed First Mortgage Registered Debentures, 1946/71	£9,975	0 0
£46,950	Electricity Supply Commission 4½% Local Registered Stock, 1953/63	46,950	0 0
£291,650	Electricity Supply Commission 3¼% Local Registered Stock, 1954/64	288,864	18 2
£148,000	Electricity Supply Commission 3¼% Local Registered Stock, 1956/66	143,560	0 0
	Interest Accrued	2,793	18 4
		£492,143	16 6

Johannesburg,
31st March, 1937.

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

STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £2,500,000 ELECTRICITY
SUPPLY COMMISSION 3¼% LOCAL REGISTERED STOCK, 1959/64
(LOAN No. 6) AS AT 31st DECEMBER, 1936.

£27,150	Electricity Supply Commission 3¼% Local Registered Stock, 1959/64	£27,474 5 8
£600	Electricity Supply Commission 4½% Local Registered Stock, 1953	600 0 0
£20,000	Electricity Supply Commission 3¼% Local Registered Stock, 1956/66	19,400 0 0
	Interest Accrued	183 15 5
		£47,658 1 1

STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE
REDEMPTION FUND IN RESPECT OF THE £2,000,000 ELECTRICITY
SUPPLY COMMISSION 3¼% LOCAL REGISTERED STOCK, 1956/66
(LOAN No. 7) AS AT 31st DECEMBER, 1936.

£14,500	Electricity Supply Commission 3¼% Local Registered Stock, 1956/66	£14,065 0 0
	Interest Accrued	74 11 3
		£14,139 11 3

Johannesburg,
31st March, 1937.

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

Electricity Supply

Dr. Redemption Fund Account for the
in respect of £500,000 Electricity Supply Commission

To Balance as per Balance Sheet	...	...	...		£54,457 6 10
Natal Central Undertaking	...	...	...	£171 3 2	
Witbank Undertaking	...	...	...	274 14 0	
Capetown Undertaking	...	...	...	36,372 18 7	
Durban Undertaking	...	...	...	17,638 11 1	
					£54,457 6 10

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

Johannesburg,
31st March, 1937.

Commission.

Year ended 31st December, 1936,
 4½% Local Registered Stock 1953/63 (Loan No. 3).

Cr.

By Balance at 31st December, 1935, brought forward	...	...	...		£37,510 17 3
Natal Central Undertaking	...	...	...	£113 5 11	
Witbank Undertaking	...	...	...	175 2 4	
Capetown Undertaking	...	...	...	24,323 1 2	
Durban Undertaking	...	...	...	12,899 7 10	
					15,633 12 0
„ Amounts Contributed during the Year out of Revenue					
Natal Central Undertaking	...	...	...	53 18 0	
Witbank Undertaking	...	...	...	93 9 1	
Capetown Undertaking	...	...	...	11,198 11 3	
Durban Undertaking	...	...	...	4,287 13 8	
					1,312 17 7
„ Interest Earned on Investments					
Interest Earned	...	...	...	1,790 14 8	
Less—Appropriated in reduction of Investments	...	...	Premium on Investments	477 17 1	
					3 19 3
Natal Central Undertaking	...	...	...	6 2 7	
Witbank Undertaking	...	...	...	851 6 2	
Capetown Undertaking	...	...	...	451 9 7	
Durban Undertaking	...	...	...
					£54,457 6 10

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 18th May, 1937.

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

Electricity Supply

Dr. Redemption Fund Account for the
in respect of £6,750,000 Electricity Supply Commission

To Balance as per Balance Sheet	...	...	...	...	£456,621 3 4
Natal Central Undertaking	...	...	...	£177,789 12 10	
Witbank Undertaking	...	...	...	135,316 8 5	
Capetown Undertaking	...	...	...	91,692 8 7	
Durban Undertaking	...	...	...	42,741 8 4	
Sabie Undertaking	...	...	...	8,702 12 4	
Head Office	...	...	...	378 12 10	
				£456,621 3 4	

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

Johannesburg,
31st March, 1937.

Commission.

Year ended 31st December, 1936,
3½% Local Registered Stock, 1954/64 (Loan No. 5).

Cr.

By Balance at 31st December, 1935, brought forward	...	...	...	£310,460 12 3
Natal Central Undertaking	...	...	...	£103,113 2 10
Witbank Undertaking	...	...	...	112,775 5 10
Capetown Undertaking	...	...	...	52,507 5 3
Durban Undertaking	...	...	...	34,304 14 0
Sabie Undertaking	...	...	...	7,526 4 11
Head Office	...	...	...	233 19 5
„ Amounts Contributed during the Year out of Revenue				132,217 19 2
Natal Central Undertaking	...	...	...	69,677 17 3
Witbank Undertaking	...	...	...	18,049 5 10
Capetown Undertaking	...	...	...	36,417 9 11
Durban Undertaking	...	...	...	7,057 5 6
Sabie Undertaking	...	...	...	882 6 8
Head Office	...	...	...	133 14 0
„ Net Proceeds of Sales of Fixed Property				336 11 5
Natal Central Undertaking	...	...	...	83 0 0
Witbank Undertaking	...	...	...	12 6 4
Capetown Undertaking	...	...	...	241 5 1
„ Interest Earned on Investments				13,606 0 6
Natal Central Undertaking	...	...	...	4,915 12 9
Witbank Undertaking	...	...	...	4,479 10 5
Capetown Undertaking	...	...	...	2,526 8 4
Durban Undertaking	...	...	...	1,379 8 10
Sabie Undertaking	...	...	...	294 0 9
Head Office	...	...	...	10 19 5
				£456,621 3 4

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 18th May, 1937.

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

Electricity Supply

Dr. Redemption Fund Account for the
in respect of £2,000,000 Electricity Supply Commission

To Balance as per Balance Sheet	...	...	...		£291 6 0
Natal Central Undertaking	...	...	...	£3 0 7	
Capetown Undertaking	...	...	...	27 15 10	
Klip Generating Station Undertaking	...	...	...	152 0 4	
Rand Extension Undertaking	...	...	...	108 9 3	
					£291 6 0

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

Johannesburg,
31st March, 1937.

Account No. 5.

Commission.

Four Months ended 31st December, 1936, Cr.
3½% Local Registered Stock 1956/66 (Loan No. 7).

By Amounts contributed during the Year out of Revenue	...	...	...		£290 14 0
Natal Central Undertaking	...	...	...	£3 0 7	
Capetown Undertaking	...	...	...	27 14 8	
Klip Generating Station Undertaking	...	...	...	151 13 8	
Rand Extension Undertaking	...	...	...	108 5 1	
„ Interest Earned on Investments	...	...	...		12 0
Capetown Undertaking	...	...	...	1 2	
Klip Generating Station Undertaking	...	...	...	6 8	
Rand Extension Undertaking	...	...	...	4 2	
					£291 6 0

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 18th May, 1937.

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

Electricity Supply

Dr.

Reserve Fund Account for the

To Expenditure during the Year on Replacements and Betterment	£	s	d
Natal Central Undertaking	£4,584	13	4
Witbank Undertaking	6,949	15	5
Capetown Undertaking	2,453	19	4
Durban Undertaking	75	0	0
„ Balance as per Balance Sheet	945,175	7	10
Natal Central Undertaking	413,220	15	9
Witbank Undertaking	216,453	6	1
Capetown Undertaking	186,501	19	7
Durban Undertaking	105,727	8	6
Sabie Undertaking	8,450	17	9
Klip Generating Station Undertaking	13,070	6	1
Rand Extension Undertaking	1,750	14	1
	£959,238	15	11

Johannesburg,
31st March, 1937.

Account No. 6.

Commission.

Year ended 31st December, 1936.

Cr.

By Balance at 31st December, 1935, brought forward	£786,220	16	7
Natal Central Undertaking	£365,359	16	7
Witbank Undertaking	180,254	13	11
Capetown Undertaking	146,327	10	5
Durban Undertaking	86,482	8	10
Sabie Undertaking	7,514	3	10
Rand Extension Undertaking	282	3	0
„ Amounts set aside during the Year as per Revenue Accounts			137,279
Natal Central Undertaking	36,000	0	0
Witbank Undertaking	35,000	0	0
Capetown Undertaking	36,000	0	0
Durban Undertaking	15,300	0	0
Sabie Undertaking	600	0	0
Klip Generating Station Undertaking	12,940	9	9
Rand Extension Undertaking	1,439	2	11
„ Interest Earned on Investments			35,738
			£959,238

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

Electricity Supply

NATAL CENTRAL

Dr. Revenue Account for the Year

Generation of Electricity.			
To Operation—			
Fuel	£76,545	9	5
Water, Oil, Waste and Stores	1,051	18	3
Salaries and Wages	17,400	5	1
Other Expenses	87	17	9
„ Maintenance—			
Stores	6,955	12	2
Salaries and Wages	9,443	16	3
Other Expenses	641	12	3
			£112,126 11 2
„ Electricity Purchased			302 4 11
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores	3,198	15	7
Salaries and Wages	15,378	13	2
Other Expenses	3,802	3	7
			22,379 12 4
General Expenses.			
„ Local Administration and Technical Management	6,402	11	6
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	10,714	15	1
„ Investigations and Development Expenses	54	4	8
„ Head Office Administration and General Expenses including Publicity	9,080	1	6
„ Engineering Expenses	2,864	17	9
			29,116 10 6
			163,924 18 11
„ Interest			138,458 17 2
„ Redemption Fund—			
Loan No. 3	53	18	0
Loan No. 4	3,501	18	6
Loan No. 5	69,677	17	3
Loan No. 7	3	0	7
			73,236 14 4
„ Repayment Volksrust Loan			489 11 2
„ Amount set aside to Reserve Fund			36,000 0 0
„ Balance carried down			718 4 0
			£412,828 5 7
To Balance as per Balance Sheet			£16,173 6 0
			£16,173 6 0

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Sales of Electricity—					
Traction Supplies	£325,839	14	11		
Bulk Supplies	55,140	6	7		
Industrial Supplies	18,101	7	5		
Domestic and Lighting Supplies	9,639	17	10		
				£408,721	6 9
„ Other Revenue					4,106 18 10
					£412,828 5 7
By Balance at 31st December, 1935, brought forward				£15,455	2 0
„ Balance brought down				718	4 0
				£16,173	6 0

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

WITBANK

Dr. Revenue Account for the Year

Generation of Electricity.			
To Operation—			
Fuel	£72,817	5	10
Water, Oil, Waste and Stores	5,686	3	2
Salaries and Wages	25,269	2	3
Other Expenses	1,289	16	8
„ Maintenance—			
Stores	11,710	0	8
Salaries and Wages	12,696	15	10
Other Expenses	11,256	14	3
		£140,725	18 8
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores	2,614	6	8
Salaries and Wages	3,644	7	2
Other Expenses	613	13	4
		6,872	7 2
General Expenses.			
„ Local Administration and Technical Management	6,966	7	1
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	9,504	19	5
„ Administration, Engineering and General Expenses of Operating Party (The Victoria Falls and Transvaal Power Company, Limited)	7,000	0	0
„ Investigations and Development Expenses	33	0	2
„ Head Office Administration and General Expenses, including Publicity	6,153	16	1
„ Engineering Expenses	1,941	12	3
		31,599	15 0
		179,198	0 10
		94,958	5 7
„ Interest			
„ Redemption Fund—			
Loan No. 3	93	9	1
Loan No. 4	37,794	17	7
Loan No. 5	18,049	5	10
		55,937	12 6
„ Amount set aside to Reserve Fund		35,000	0 0
„ Balance carried down		3,972	2 1
		£369,064	1 0
To Balance as per Balance Sheet	£15,458	10	4
		£15,458	10 4

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Sales of Electricity—			
Bulk Supplies	£286,918	12	2
Industrial Supplies	71,705	5	3
Domestic and Lighting Supplies	6,042	2	0
		£364,665	19 5
„ Other Revenue		4,398	1 7
		£369,064	1 0
By Balance at 31st December, 1935, brought forward	£11,486	8	3
„ Balance brought down		3,972	2 1
		£15,458	10 4

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

CAPETOWN

Dr. Revenue Account for the Year

Generation of Electricity.			
To Proportion of Pooled Costs ... (As per attached Statement)	...	£106,668	6 6
Distribution of Electricity.			
„ Operation and Maintenance—			
Stores ...	£2,574	6 11	
Salaries and Wages ...	12,879	13 2	
Other Expenses ...	4,976	0 3	
		20,430	0 4
General Expenses.			
„ Local Administration and Technical Management ...	7,271	7 11	
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.) ...	9,644	14 11	
„ Head Office Administration and General Expenses, including Publicity ...	7,523	9 9	
„ Engineering Expenses ...	2,373	15 4	
	26,813	7 11	
Less—Charged to Pooled Costs ...	2,795	1 4	
		24,018	6 7
		151,116	13 5
„ Interest ...	90,740	4 5	
„ Redemption Fund—			
Loan No. 3 ...	11,198	11 3	
Loan No. 4 ...	6,414	16 2	
Loan No. 5 ...	36,417	9 11	
Loan No. 7 ...	27	14 8	
„ Amount set aside to Reserve Fund ...	36,000	0 0	
	180,798	16 5	
Less—Charged to Pooled Costs ...	43,080	3 9	
		137,718	12 8
„ Balance carried down ...		1,789	8 6
		£290,624	14 7
To Balance as per Balance Sheet ...		£14,960	10 2
		£14,960	10 2

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Sales of Electricity—				
Traction Supplies ...	£154,051	8 7		
Bulk Supplies ...	30,286	12 4		
Industrial Supplies ...	71,411	8 0		
Domestic and Lighting Supplies ...	31,936	6 6		
			£287,685	15 5
„ Other Revenue ...	4,367	9 7		
Less—Credited to Pooled Costs ...	1,428	10 5		
				2,938 19 2
				£290,624 14 7
By Balance at 31st December, 1935, brought forward ...			£13,171	1 8
„ Balance brought down ...			1,789	8 6
			£14,960	10 2

Referred to in our Report of 18th May, 1937.

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

Electricity Supply Commission

SALT RIVER AND DOCK

Dr. Statement of Pooled Costs for the Year ended

	Expenditure by Electricity Supply Commission.	Expenditure by City of Capetown.	Pooled Costs.
Pooled Generation of Electricity.			
To Operation and Maintenance—			
Fuel	£195,947 18 11	£18,780 1 9	£214,728 0 8
Water, Oil, Waste and Stores ...	7,555 5 5	2,111 10 6	9,666 15 11
Salaries and Wages	13,435 1 7	11,221 1 5	24,656 3 0
Other Expenses	14,455 12 7	1,821 1 4	16,276 13 11
„ General Expenses (including Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.) ...	2,795 1 4	2,010 4 4	4,805 5 8
„ Interest	22,231 9 5	—	22,231 9 5
„ Redemption Fund	18,393 19 11	—	18,393 19 11
„ Reserve Fund	2,454 14 5	—	2,454 14 5
	£277,269 3 7	£35,943 19 4	£313,213 2 11

Capetown,
31st March, 1937.

and City of Capetown.

ROAD POWER STATIONS.

31st December, 1936, and Allocation thereof. Cr.

By Allocation of Pooled Costs in terms of Agreement—			
Electricity Supply Commission	£106,668 6 6		
City of Capetown	204,705 14 9		
			£311,374 1 3
„ Sundry Revenue—			
Electricity Supply Commission	1,428 10 5		
City of Capetown	410 11 3		
			1,839 1 8
			£313,213 2 11

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

Electricity Supply

DURBAN

Dr. Revenue Account for the Year

Generation of Electricity.		
To Operation—		
Fuel	£92,265 12 5	
Water, Oil, Waste and Stores	1,246 2 7	
Salaries and Wages	13,346 11 9	
Other Expenses	880 8 6	
„ Maintenance—		
Stores	6,514 12 3	
Salaries and Wages	12,972 3 7	
Other Expenses	861 5 9	
„ Electricity Purchased		£128,086 16 10
		1,251 15 11
Distribution of Electricity.		
„ Operation and Maintenance—		
Stores	310 12 10	
Salaries and Wages	1,208 19 10	
Other Expenses	370 6 5	
		1,889 19 1
General Expenses.		
„ Local Administration and Technical Management ...	4,953 2 8	
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	5,060 10 2	
„ Investigations and Development Expenses	511 4 11	
„ Head Office Administration and General Expenses, including Publicity	5,448 0 11	
„ Engineering Expenses	1,718 18 8	
		17,691 17 4
		148,920 9 2
„ Interest		49,349 8 11
„ Redemption Fund—		
Loan No. 3	4,287 13 8	
Loan No. 4	19,801 7 8	
Loan No. 5	7,057 5 6	
		31,146 6 10
„ Sinking Fund		255 5 6
„ Amount set aside to Reserve Fund		15,300 0 0
„ Balance carried down		2,213 16 8
		£247,185 7 1
To Balance as per Balance Sheet		£10,297 9 9
		£10,297 9 9

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December 1936.

Cr.

By Sales of Electricity—		
Bulk Supplies	£241,951 6 3	
Industrial Supplies	682 8 5	
Domestic and Lighting Supplies	4,002 6 10	
		£246,636 1 6
„ Other Revenue		549 5 7
		£247,185 7 1
By Balance at 31st December, 1935, brought forward ...		£8,083 13 1
„ Balance brought down		2,213 16 8
		£10,297 9 9

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

SABIE

Dr. Revenue Account for the Year

Generation of Electricity.				
To Operation—				
Water, Oil, Waste and Stores	...	...	...	£47 0 2
Salaries and Wages	...	...	...	1,738 13 5
,, Maintenance—				
Stores	...	...	...	876 14 7
Salaries and Wages	...	...	...	275 10 1
Other Expenses	...	...	...	135 16 8
			£3,073	14 11
Distribution of Electricity.				
,, Operation and Maintenance—				
Stores	...	...	...	44 3 4
Salaries and Wages	...	...	...	318 14 3
Other Expenses	...	...	...	142 16 11
			505	14 6
General Expenses.				
,, Local Administration and Technical Management				
General Expenses (including Maintenance of Quarters, Insurance, Pension Fund Contributions, etc.)	...	...	...	314 4 0
,, Head Office Administration and General Expenses, including Publicity				
Engineering Expenses	...	...	...	778 5 10
			245	11 3
			1,592	4 1
			5,171	13 6
			4,248	7 5
,, Interest				
,, Redemption Fund—				
Loan No. 4	...	...	...	2,643 7 9
Loan No. 5	...	...	...	882 6 8
			3,525	14 5
,, Amount set aside to Reserve Fund				
			600	0 0
,, Balance carried down				
			358	16 1
			£13,904	11 5
To Balance as per Balance Sheet				
			£1,056	8 3
			£1,056	8 3

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

Johannesburg,
31st March, 1937.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Sales of Electricity—							
Mining Supplies	...	...	...	...	...	...	£13,881 12 5
,, Other Revenue							
	...	...	...	...	...	...	22 19 0
							£13,904 11 5
By Balance at 31st December, 1935, brought forward							
	...	...	...	...	...	...	£697 12 2
,, Balance brought down							
	...	...	...	...	...	...	358 16 1
							£1,056 8 3

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

KLIP GENERATING

Dr. Revenue Account for the Period

GENERATION OF ELECTRICITY.

To Operation—			
Fuel	£76,888	16	7
Water, Oil Waste and Stores	1,662	7	1
Salaries and Wages	12,287	18	7
Other Expenses	1,537	7	7
„ Maintenance—			
Stores	899	4	5
Salaries and Wages	2,622	17	8
Other Expenses	1,105	8	9
	£97,004	0	8

GENERAL EXPENSES.

„ Local Administration and Technical Management	3,576	9	1
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	3,066	13	9
„ Administration, Engineering and General Expenses of Operating Party (The Victoria Falls and Transvaal Power Company, Limited)	6,575	1	9
„ Head Office Administration and General Expenses, including Publicity	2,050	1	6
„ Engineering Expenses	646	16	7
	15,915	2	8
	112,919	3	4
„ Interest	44,803	17	11
„ Redemption Fund—			
Loan No. 6	33,071	14	6
Loan No. 7	151	13	8
	33,223	8	2
„ Amount set aside to Reserve Fund	12,940	9	9
	£203,886	19	2

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

Johannesburg,
31st March, 1937.

Commission.

STATION UNDERTAKING.

10th March to 31st December, 1936.

Cr.

By Sales of Electricity—			
Bulk Supplies	£202,172	16	11
„ Other Revenue	1,714	2	3

Referred to in our Report of 18th May, 1937.

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

Electricity Supply

RAND EXTENSION

Dr. Revenue Account for the Year

	General Expenses.	
To General Expenses (Insurance)	£25 1 0	
„ Head Office Administration and General Expenses, including Publicity	220 16 3	
„ Engineering Expenses	69 13 5	
	£315 10 8	
„ Interest		5,476 4 6
„ Redemption Fund—		
Loan No. 6	3,586 12 1	
Loan No. 7	108 5 1	
	3,694 17 2	
„ Amount set aside to Reserve Fund		1,439 2 11
		£10,925 15 3
		£10,925 15 3

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

Johannesburg,
31st March, 1937.

Account No. 13.

Commission.

UNDERTAKING.

ended 31st December, 1936.

Cr.

By Amount Recovered from The Victoria Falls and Transvaal Power Company, Limited	£10,925 15 3
	£10,925 15 3
	£10,925 15 3

Referred to in our Report of 18th May, 1937.

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

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, 1936:—

POWER STATIONS.

Colenso (Natal Central Undertaking)	Steam.
Congella (Durban Undertaking)	Steam.
Klip	Steam.
Sabie	Hydro.
Salt River (Capetown Undertaking)	Steam.
Scottburgh	Oil.
Umkomaas	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	10	60,000	600,000	290
Congella	{ 6 2 }	{ 60,000 100,000 }	560,000	{ 270 300 }
Klip	8	180,000	1,440,000	390
Salt River	{ 2 6 }	{ 60,000 100,000 }	720,000	{ 270 425 }
Witbank	20	70,000	1,400,000	225
Totals	54		4,720,000	

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.	
Colenso ...	5	12,000	13,500	60,000	67,500	6,600
Congella ...	2	6,000	7,500	68,000	85,000	6,600
	3	12,000	15,000			
	1	20,000	25,000			
Klip ...	5	33,000	41,250	165,000	206,250	10,500
Sabie ...	3	450	600	1,350	1,800	3,300
Salt River ...	3	10,000	11,000	90,000	108,000	12,000
	3	20,000	25,000			33,000
Scottburgh ...	1	13	15	29	35	400
	1	16	20			400
Umkomaas ...	2	32	40	164	205	400
	1	100	125			400
Witbank ...	5	20,000	23,500	100,000	117,500	6,600
Totals ...	35			484,543	586,290	

TRANSMISSION LINES AND CABLES.

Undertaking.	88,000	33,000	21,000	12,000	6,600,	3,300	Total
	volts.	volts.	volts.	11,000	2,200	380/220	
	Route	Route	Route	Route	Route	Route	Route
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Capetown ...	—	210	—	30	87	101	428
Durban (South Coast)	—	19	—	—	2	9	30
Natal Central ...	420	33	—	17	95	24	589
Sabie ...	—	—	7	—	1	—	8
Witbank ...	—	—	104	—	13	22	139
Totals ...	420	262	111	47	198	156	1,194

STATIC TRANSFORMERS AT POWER STATIONS AND SUB-STATIONS.

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

Undertaking.						Capacity. Kilovolt Amperes.
Capetown ... ..	...	...	...	...	...	72,839
Durban ... ..	...	...	...	...	...	8,340
Klip ... ..	...	...	...	...	...	289,333
Natal Central ... ..	...	...	...	...	...	146,270
Sabie ... ..	...	...	...	...	...	3,140
Witbank ... ..	...	...	...	...	...	179,651
Total ... ..	...	...	...	...	...	<u>699,573</u>

CONVERTING SUB-STATIONS.

Type				Number of Sub-stations.	Number of Units.	Rating.
Motor Generators ... ..	...	...	{	1	1	150 kW.
				13	23	46,000 kW.
Rotary Converters ... ..	...	...		6	12	24,000 kW.
Rectifiers ... ..	...	...		8	17	26,210 kVA.
Totals ... ..	...	...		28	53	

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, 1936:—

POWER STATIONS.

Colenso (Natal Central Undertaking)	Steam.
Congella (Durban Undertaking)	Steam.
Klip	Steam.
Sabie	Hydro.
Salt River (Capetown Undertaking)	Steam.
Scottburgh	Oil.
Umkomaas	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	10	60,000	600,000	290
Congella	{ 6 2 }	{ 60,000 100,000 }	560,000	{ 270 300 }
Klip	8	180,000	1,440,000	390
Salt River	{ 2 6 }	{ 60,000 100,000 }	720,000	{ 270 425 }
Witbank	20	70,000	1,400,000	225
Totals	54		4,720,000	

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.	
Colenso ...	5	12,000	13,500	60,000	67,500	6,600
Congella ...	2	6,000	7,500	68,000	85,000	6,600
	3	12,000	15,000			
	1	20,000	25,000			
Klip ...	5	33,000	41,250	165,000	206,250	10,500
Sabie ...	3	450	600	1,350	1,800	3,300
Salt River ...	3	10,000	11,000	90,000	108,000	12,000
	3	20,000	25,000				33,000
Scottburgh ...	1	13	15	29	35	400
	1	16	20				400
Umkomaas ...	2	32	40	164	205	400
	1	100	125				400
Witbank ...	5	20,000	23,500	100,000	117,500	6,600
Totals ...	35			484,543	586,290	

TRANSMISSION LINES AND CABLES.

Undertaking.	88,000	33,000	21,000	12,000	6,600,	3,300	Total
	volts.	volts.	volts.	11,000	2,200	380/220	
	Route	Route	Route	Route	Route	Route	Route
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Capetown ...	—	210	—	30	87	101	428
Durban (South Coast)	—	19	—	—	2	9	30
Natal Central ...	420	33	—	17	95	24	589
Sabie ...	—	—	7	—	1	—	8
Witbank ...	—	—	104	—	13	22	139
Totals ...	420	262	111	47	198	156	1,194

STATIC TRANSFORMERS AT POWER STATIONS AND SUB-STATIONS.

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

Undertaking.						Capacity. Kilovolt Amperes.
Capetown ...	...	...	...	...	...	72,839
Durban ...	...	...	...	...	...	8,340
Klip ...	...	...	...	...	...	289,333
Natal Central ...	...	...	...	...	...	146,270
Sabie ...	...	...	...	...	...	3,140
Witbank ...	...	...	...	...	...	179,651
Total ...	...	...	...	...	...	<u>699,573</u>

CONVERTING SUB-STATIONS.

Type				Number of Sub-stations.	Number of Units.	Rating.
Motor Generators ...	...	...	{	1	1	150 kW.
				13	23	46,000 kW.
Rotary Converters ...	...	...		6	12	24,000 kW.
Rectifiers ...	...	...		8	17	26,210 kVA.
Totals ...	...	...		28	53	

Electricity Supply Commission.

STATEMENT No. 2.

Summary of principal plant and equipment in course of installation or on order as at 31st December, 1936:—

BOILER PLANT.

Capacity in lbs. of steam per hour
(normal rating).

Power Station.	Number of Boilers.	Each.	Total.	Pressure. lbs. sq. inch.
Klip ...	14 ...	180,000 ...	2,520,000	... 390

GENERATING PLANT (EXCLUDING HOUSE SETS).

Power Station.	Number of Sets.	Capacity each. Kilowatts.	Total Capacity. Kilowatts.
Congella ...	1 ...	30,000 ...	30,000
Klip ...	7 ...	33,000 ...	231,000
Volkstrust ...	2 ...	300 ...	600
Totals ...	10		261,600

TRANSMISSION LINE AND CABLES.

	88,000 and 40,000 Volts. Route Miles.	6,600 Volts. Route Miles.	380/220 Volts. Route Miles.	Totals.
Overhead Lines ...	93	2	2	97

TRANSFORMERS

(Step-up and Step-down).

Total capacity in course of installation or on order 164,700
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CONVERTING SUB-STATIONS.

Type.	Number of Sub-stations.	Number of Sets.
Mercury Arc Rectifiers ...	18 ...	27

Electricity Supply Commission.

STATEMENT No. 3.

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 1936.

(See previous Annual Reports for Rights or Interests in or over Land Acquired prior to 1936.)

Area. Acres. Roads. Perches.	Farm or Lot.	District.	Title.	Purchase Price or Rental.	Acquired From.	Purpose for Which Required.
NATAL CENTRAL UNDERTAKING.						
	Lot 22 of Uitkomst and Doornrug 852	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	£35 0 0	E. W. H. Dunkelmann	Power Conductors
	Subdivision S of Leliefontein 1175	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	7 17 6	W. H. Keytel	Power Conductors
	Part of Camperdown Township	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	5 0 0	H. Dart	Power Conductors
	Remainder of B of Camperdown Township	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	5 0 0	V. E. Jee	Power Conductors
	Lot 33 of Vaalkop 885 and remainder (Lot 41B) of Vaalkop and Dadelfontein 5247	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	5 0 0	W. J. Chapman	Power Conductors
	Remainder of W of Cotham of Salt River	Durban	Servitude of Right-of-Way in Perpetuity	2 0 0	A. McDonald	Power Conductors
	Remainder of Craigside 2272	Dundee	Servitude of Right-of-Way in Perpetuity	4 12 6	D. McPhail	Power Conductors
	Subdivision 7 of A of Attercliffe	Durban	Servitude of Right-of-Way in Perpetuity	3 10 0	Varadarajulu	Power Conductors
	Remainder of 21 of Uitkomst and Doornrug 852	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	5 0 0	F. E. Meyer	Power Conductors
	Subdivision D of Ordnance Land 1686	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	Government of Union of South Africa	Power Conductors
	10 of Vaalkop and Dadelfontein 885	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	J. Watson	Power Conductors
	Remainder of D of Honig Krantz 945	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	A. F. Doherty	Power Conductors
	A of D of Honig Krantz 945	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	3 10 0	K. S. Pillay	Power Conductors
	Remainder of 271 of Town Lands	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	J. L. Smith	Power Conductors
	Subdivisions F and Y of Leliefontein 1175	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	10 0 0	C. A. Mair and J. L. Smith	Power Conductors
	Bannockburn 8868	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	11 0 0	J. J. Fraser and M. Sherrard	Power Conductors
	Remainder of Glencoe 3507	Klip River	Servitude of Right-of-Way in Perpetuity	13 15 0	L. Payne	Power Conductors
	Remainder of Craigieburn	Klip River	Servitude of Right-of-Way in Perpetuity	—	Borough of Dundee	Power Conductors
	Certain Subdivisions of Vaalkop and Dadelfontein 885	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	15 0 0	A. S. Hardman	Power Conductors
	Remainder of L of Driefontein 932	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	F. W. Knapp	Power Conductors
WITBANK UNDERTAKING.						
	N of Portion 16 of Blesboklaagte 29	Witbank	Servitude of Right-of-Way in Perpetuity	30 0 0	M. C. Schoombee	Power Conductors
	D of Klipplaat 47	Witbank	Servitude of Right-of-Way in Perpetuity	22 0 0	J. C. P. de Villiers	Power Conductors
	E of Klipplaat 47	Witbank	Servitude of Right-of-Way in Perpetuity	36 0 0	J. T. du Preez	Power Conductors
	M of 16 of Blesboklaagte 29	Witbank	Servitude of Right-of-Way in Perpetuity	20 0 0	S. E. du Plessis	Power Conductors
CAPETOWN UNDERTAKING.						
	Eisenberg and Oostergo	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	Government of Union of South Africa	Power Conductors
	Lindani, Retreat, and The Willows, Idias Valley	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	B. M. Malleson and G. G. Elliott	Power Conductors
	Remaining extent of Vredenburg	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. S. G. Collie	Power Conductors
	Lot 2 of Kenken Valley and 1 of Odendal	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	W. L. Hofmeyr	Power Conductors
	Lot B of Fairview	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. P. H. Steyn and A. J. D. Steyn	Power Conductors
	Certain land at Somerset West	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	M. M. McDonald	Power Conductors
	Lot 8	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. A. M. Monnik	Power Conductors
	Lots B and C	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. M. E. Fry	Power Conductors
	Rehoboth	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. Bredell	Power Conductors
	Vredenburg	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	F. J. le Roux	Power Conductors
	Lot A of Vredenburg	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	H. Louw	Power Conductors
	Tregarthen and Lot H of Glen Arum	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	A. L. Heywood	Power Conductors
RAND EXTENSION UNDERTAKING.						
	Gembokfontein and Venterspost	Krugersdorp	Surface Right Permit	—	Government of Union of South Africa	Power Conductors
	Spaarwater 154	Heidelberg	Surface Right Permit	—	Government of Union of South Africa	Power Conductors

STATEMENT No. 4.

Units sold to all consumers during the past eleven years.

Year.	Capetown Under- taking.	Durban Under- taking.	Klip Under- taking.	Natal Cent. Under- taking.	Sabie Under- taking.	Witbank Under- taking.	Total.
1926	280,242	—	—	719,666	727,401	160,031,213	161,758,522
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	610,235,123	890,735,162
1933	100,635,629	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

STATEMENT No. 5.**Power Station Statistics—1936.**

Power Station	Units Generated.	Maximum Half-hourly Demand. Kilowatts (Sent Out).	Load Factor on Units Sent Out. %
Colenso	192,121,470	36,260	56.8
Congella	180,822,650	44,467	43.5
Klip	598,165,403	132,180 (Hour)	48.0
Salt River	273,548,458	57,600	51.8
Sabie	7,376,000	1,200	69.1
Witbank	741,329,579	101,008 (Hour)	78.4
	1,993,363,560		

STATEMENT No. 6.

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

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	137,942	1.44	1.53	12,380	18,900	18.1%
Congella	119,162	1.32	1.40	12,630	17,700	19.3%
Klip	485,114	1.62	1.74	9,660	16,810	20.3%
Salt River	154,760	1.13	1.19	13,240	15,700	21.7%
Witbank	664,288	1.79	1.91	11,140	21,280	16.0%
	<u>1,561,266</u>					

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

Electricity Supply Commission.

STATEMENT No. 2.

Summary of principal plant and equipment in course of installation or on order as at 31st December, 1936:—

BOILER PLANT.

Capacity in lbs. of steam per hour
(normal rating).

Power Station.	Number of Boilers.	Each.	Total.	Pressure. lbs. sq. inch.
Klip ...	14 ...	180,000 ...	2,520,000	... 390

GENERATING PLANT (EXCLUDING HOUSE SETS).

Power Station.	Number of Sets.	Capacity each. Kilowatts.	Total Capacity. Kilowatts.
Congella ...	1 ...	30,000 ...	30,000
Klip ...	7 ...	33,000 ...	231,000
Volkstrust ...	2 ...	300 ...	600
Totals ...	10		261,600

TRANSMISSION LINE AND CABLES.

	88,000 and 40,000 Volts. Route Miles.	6,600 Volts. Route Miles.	380/220 Volts. Route Miles.	Totals.
Overhead Lines ...	93	2	2	97

TRANSFORMERS

(Step-up and Step-down).

Total capacity in course of installation or on order 164,700
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CONVERTING SUB-STATIONS.

Type.	Number of Sub-stations.	Number of Sets.
Mercury Arc Rectifiers ...	18 ...	27

Electricity Supply Commission.

STATEMENT No. 3.

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 1936.

(See previous Annual Reports for Rights or Interests in or over Land Acquired prior to 1936.)

Area. Acres. Roads. Perches.	Farm or Lot.	District.	Title.	Purchase Price or Rental.	Acquired From.	Purpose for Which Required.
NATAL CENTRAL UNDERTAKING.						
	Lot 22 of Uitkomst and Doornrug 852	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	£35 0 0	E. W. H. Dunkelmann	Power Conductors
	Subdivision S of Leliefontein 1175	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	7 17 6	W. H. Keytel	Power Conductors
	Part of Camperdown Township	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	5 0 0	H. Dart	Power Conductors
	Remainder of B of Camperdown Township	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	5 0 0	V. E. Jee	Power Conductors
	Lot 33 of Vaalkop 885 and remainder (Lot 41B) of Vaalkop and Dadelfontein 5247	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	5 0 0	W. J. Chapman	Power Conductors
	Remainder of W of Cotham of Salt River	Durban	Servitude of Right-of-Way in Perpetuity	2 0 0	A. McDonald	Power Conductors
	Remainder of Craigside 2272	Dundee	Servitude of Right-of-Way in Perpetuity	4 12 6	D. McPhail	Power Conductors
	Subdivision 7 of A of Attercliffe	Durban	Servitude of Right-of-Way in Perpetuity	3 10 0	Varadarajulu	Power Conductors
	Remainder of 21 of Uitkomst and Doornrug 852	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	5 0 0	F. E. Meyer	Power Conductors
	Subdivision D of Ordnance Land 1686	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	Government of Union of South Africa	Power Conductors
	10 of Vaalkop and Dadelfontein 885	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	J. Watson	Power Conductors
	Remainder of D of Honig Krantz 945	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	A. F. Doherty	Power Conductors
	A of D of Honig Krantz 945	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	3 10 0	K. S. Pillay	Power Conductors
	Remainder of 271 of Town Lands	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	J. L. Smith	Power Conductors
	Subdivisions F and Y of Leliefontein 1175	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	10 0 0	C. A. Mair and J. L. Smith	Power Conductors
	Bannockburn 8868	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	11 0 0	J. J. Fraser and M. Sherrard	Power Conductors
	Remainder of Glencoe 3507	Klip River	Servitude of Right-of-Way in Perpetuity	13 15 0	L. Payne	Power Conductors
	Remainder of Craigieburn	Klip River	Servitude of Right-of-Way in Perpetuity	—	Borough of Dundee	Power Conductors
	Certain Subdivisions of Vaalkop and Dadelfontein 885	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	15 0 0	A. S. Hardman	Power Conductors
	Remainder of L of Driefontein 932	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	F. W. Knapp	Power Conductors
WITBANK UNDERTAKING.						
	N of Portion 16 of Blesboklaagte 29	Witbank	Servitude of Right-of-Way in Perpetuity	30 0 0	M. C. Schoombee	Power Conductors
	D of Klipplaat 47	Witbank	Servitude of Right-of-Way in Perpetuity	22 0 0	J. C. P. de Villiers	Power Conductors
	E of Klipplaat 47	Witbank	Servitude of Right-of-Way in Perpetuity	36 0 0	J. T. du Preez	Power Conductors
	M of 16 of Blesboklaagte 29	Witbank	Servitude of Right-of-Way in Perpetuity	20 0 0	S. E. du Plessis	Power Conductors
CAPTOWN UNDERTAKING.						
	Eisenberg and Oostergo	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	Government of Union of South Africa	Power Conductors
	Lindani, Retreat, and The Willows, Idias Valley	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	B. M. Malleson and G. G. Elliott	Power Conductors
	Remaining extent of Vredenburg	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. S. G. Collie	Power Conductors
	Lot 2 of Kenken Valley and 1 of Odendal	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	W. L. Hofmeyr	Power Conductors
	Lot B of Fairview	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. P. H. Steyn and A. J. D. Steyn	Power Conductors
	Certain land at Somerset West	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	M. M. McDonald	Power Conductors
	Lot 8	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. A. M. Monnik	Power Conductors
	Lots B and C	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. M. E. Fry	Power Conductors
	Rehoboth	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	J. Bredell	Power Conductors
	Vredenburg	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	F. J. le Roux	Power Conductors
	Lot A of Vredenburg	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	H. Louw	Power Conductors
	Tregarthen and Lot H of Glen Arum	Stellenbosch	Servitude of Right-of-Way in Perpetuity	—	A. L. Heywood	Power Conductors
RAND EXTENSION UNDERTAKING.						
	Gembokfontein and Venterspost	Krugersdorp	Surface Right Permit	—	Government of Union of South Africa	Power Conductors
	Spaarwater 154	Heidelberg	Surface Right Permit	—	Government of Union of South Africa	Power Conductors

STATEMENT No. 4.

Units sold to all consumers during the past eleven years.

Year.	Capetown Under- taking.	Durban Under- taking.	Klip Under- taking.	Natal Cent. Under- taking.	Sabie Under- taking.	Witbank Under- taking.	Total.
1926	280,242	—	—	719,666	727,401	160,031,213	161,758,522
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

STATEMENT No. 5.

Power Station Statistics—1936.

Power Station	Units Generated.	Maximum Half-hourly Demand. Kilowatts (Sent Out).	Load Factor on Units Sent Out. %
Colenso	192,121,470	36,260	56·8
Congella	180,822,650	44,467	43·5
Klip	598,165,403	132,180 (Hour)	48·0
Salt River	273,548,458	57,600	51·8
Sabie	7,376,000	1,200	69·1
Witbank	741,329,579	101,008 (Hour)	78·4
	<u>1,993,363,560</u>		

STATEMENT No. 6.

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

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	137,942	1.44	1.53	12,380	18,900	18.1%
Congella	119,162	1.32	1.40	12,630	17,700	19.3%
Klip	485,114	1.62	1.74	9,660	16,810	20.3%
Salt River	154,760	1.13	1.19	13,240	15,700	21.7%
Witbank	664,288	1.79	1.91	11,140	21,280	16.0%
	<u>1,561,266</u>					

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

ANNEXURE " C. "

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

Extracted from the 1934/35 Industrial Census, and published by courtesy of the Department
of Census and Statistics (Pretoria).

UNITS GENERATED.

Province.	Local Authorities.	Other Producers.
Cape	136,340,855	251,890,261
Transvaal	246,397,726	2,672,079,724
O.F.S.	28,675,002	15,791,630
Natal	12,639,449	408,665,716
Totals	424,053,032	3,348,427,331
	3,772,480,363	

CONSUMERS AND SALES.

	PROVINCE.					Total.
	Cape.	Transvaal.	O.F.S.	Natal.		
Total Number of Consumers ...	98,115	94,370	11,706	39,440		243,631
Total Units Consumed ...	338,865,971	2,509,762,594	38,990,819	358,629,988		3,246,249,372
Number of Domestic Consumers	88,914	81,026	10,213	36,512		216,655
Units Sold to Domestic						
Consumers	136,347,117	106,244,481	6,221,493	87,134,842		335,947,933
Average Units Sold per						
Domestic Consumer	1,533	1,311	610	2,386		1,551

INSTALLED CAPACITY OF PLANTS.

Capacity.	Number of Power Stations.	Total Installed Capacity—Kilowatts.
50,000 kilowatts and over	6	510,100
20,000 kilowatts and over and below 50,000 kilowatts	9	317,350
10,000 kilowatts and over and below 20,000 kilowatts	3	35,000
5,000 kilowatts and over and below 10,000 kilowatts	7	56,530
1,000 kilowatts and over and below 5,000 kilowatts	25	54,038
Below 1,000 kilowatts	210	44,682
	<u>260</u>	<u>1,017,700</u>

SIZE AND TYPE OF GENERATING UNITS.

Size of Sets.	Steam Turbines.	Steam Recip- rocating Engines.	Oil Engines.	Gas Engines.	Water Wheels and Turbines.	Total Number of Sets.
(1) A.C. Plants—						
Below 250 kilowatts	2	70	123	24	19	238
250 kilowatts and over, but below 1,000 kilowatts	18	57	1	2	9	87
1,000 kilowatts and over, but below 5,000 kilowatts	65	2	—	—	—	67
5,000 kilowatts and over	63	—	—	—	—	63
(2) D.C. Plants—						
Below 250 kilowatts	2	68	143	25	5	243
250 kilowatts and over, but below 1,000 kilowatts	1	16	—	—	1	18
1,000 kilowatts and over, but below 5,000 kilowatts	1	—	—	—	—	1

FUEL CONSUMED.

Type of Fuel.	Quantity. (Tons=2,000 lbs.).	Cost.
Coal	3,876,110	£1,513,095
Other Fuel	—	£76,199

COAL CONSUMPTION.

Average Coal Consumption per Unit Generated.	Number of Undertakings.
Under 2 lbs.	14
2 lbs. and over, but under 3 lbs.	15
3 lbs. and over, but under 4 lbs.	16
4 lbs. and over, but under 6 lbs.	26
6 lbs. and over, but under 8 lbs.	12
8 lbs. and over	39

TRANSMISSION AND DISTRIBUTION LINES.

System.	Overhead Lines.	Route Miles: Cables.
D.C.—All voltages	647	184
A.C.—Below 2,000 volts	3,996	2,279
2,000 volts to 11,000 volts	948	2,141
Above 11,000 volts	1,630	189

TRANSFORMERS.

Total installed capacity 3,164,537 K.V.A.

Total number of persons employed in the electricity industry (generation and distribution) 11,377

Total salaries and wages paid for the year £1,719,252