

MEMBERS OF THE
Electricity Supply Commission.

DR. HENDRIK JOHANNES VAN DER BIJL (Chairman)

ALBERT MICHAEL JACOBS.

KARL GUNDELFINGER.

GEORGE GOODBAN ELLIOTT.

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Electricity Supply Commission.

Electricity House,
82, Marshall Street,

Johannesburg,

June, 1933.

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

SIR,

In conformity with the provisions of Section 14 of the Electricity Act, No. 42 of 1922, the Commission has the honour to submit its Tenth Annual Report, covering its operations for the year ended 31st December, 1932, together with a brief review of its activities up to 30th April, 1933.

The tenth anniversary of the establishment of the Commission on 6th March, 1933, was commemorated by the publication of a brochure recording, in simple and brief form, the aims, objects and achievements of the Commission. The supply of electricity from the Commission's undertakings and its varied uses gained valuable publicity through the distribution of the brochure to the Commission's consumers and other interested persons, and should result in promoting development.

In spite of the adverse conditions which continued to prevail during 1932, the Commission is able to record an increase in total sales of electricity over the previous year. A decrease was, however, experienced in the sales of electricity from the Natal Central and Sabie Undertakings. In the case of the Natal Central Undertaking, this was comparatively small and was due to a reduction in the requirements of the Railway Administration for traction purposes, which was, however, partially offset by increased supplies to other users. The decrease from the Sabie Undertaking was occasioned by a shortage of water for the hydro-electric power station of the

Undertaking, the rainfall in the district being abnormally low for the year, although no difficulty was experienced in supplying the output for which the power station was originally designed, viz., 900 kilowatts.

The sales of electricity during the first four months of the current year show an increase over the corresponding period of 1932, and as the extensions in progress at the undertakings are brought into service a further increase should be recorded.

The extensions at the Commission's undertakings comprise the installation of additional generating plant at the Salt River (Capetown) and Congella (Durban) Power Stations, extensions to transmission, distribution and reticulation systems, and the provision of additional substations for the supply for both traction and other purposes.

To finance these extensions the Commission, in February, 1933, issued a loan of £500,000 4 $\frac{3}{4}$ % Local Registered Stock at £100 per cent., redeemable 1953/63, and in April, 1933, a further loan of £2,500,000 4 $\frac{1}{2}$ % Local Registered Stock at £101 per cent. repayable 1953 was issued to repay £2,250,000 of the loan of £3,000,000 (bearing interest at the rate of 5.015%) to the Union Government, the balance being required for extension purposes.

The first loan was over-subscribed before the date for the closing of the application lists, while the second loan was over-subscribed within twenty-four hours, the success of these issues indicating the confidence of the public in the Commission.

No new Undertakings have been established during the period under review, the five existing Undertakings of the Commission being:—

Name of Undertaking.	Capacity of Main Generating Sets Kilowatts.	Date of Commencement of Supply.
Natal Central	60,000	March, 1926
Witbank	100,000	May, 1926
*Capetown	30,000	May, 1926
*Durban	48,000	July, 1928
Sabie	1,350	November, 1925

* At the Salt River Power Station of the Capetown Undertaking one 20,000 kilowatt generating set and additional boiler plant are in course of installation, a further 20,000 kilowatt set being on order. A 20,000 kilowatt generating set is also on order for the Congella Power Station of the Durban Undertaking.

The figures of primary interest in connection with the Commission's Undertakings for the year 1932 are:—

Total Capital Expenditure at 31st December, 1932 ...		£8,411,667
Total Revenue		£1,095,181
Total Production Costs (including Capital Charges, Reserve Fund Contributions, etc.)		£1,091,759
Total Capacity of Main Generating Sets	(kilowatts)	239,350
Total Electricity Sales	(units)	890,735,162
Average Cost per Unit Sold		0.294d.
Total Coal Consumption	(tons)	795,333
Number of Consumers		2,236
Total Area of Supply (approx.)	(square miles)	11,000

The total revenue for the year 1932, viz., £1,095,181 (which excludes interest earned on investments in respect of the Redemption and Reserve Funds, credited to those Funds) is made up as follows:—

Revenue and
Production
Costs, 1932.

SALES OF ELECTRICITY.	Amount.	% of Total.	Average Price per Unit Sold.
(a) Traction Supplies (converted to direct current)	£406,942	37.6%	0.868d.
(b) Bulk Supplies	535,362	49.4%	0.179d.
(c) Industrial and Mining Supplies ...	121,508	11.2%	0.482d.
(d) Domestic and Lighting Supplies ...	19,790	1.8%	2.898d.
Total	£1,083,602	100.0%	0.295d.
(e) Other Revenue	11,579		
GRAND TOTAL	£1,095,181		

The total production costs for the year 1932, viz., £1,091,759, are made up as follows:—

	Amount. £	% of Total.	Cost per Unit Sold.
Generation	376,707	34.5%	0.101d.
Distribution	39,864	3.7%	0.011d.
General Expenses	85,186	7.8%	0.023d.
Interest and Redemption	477,072	43.7%	0.129d.
Reserve Fund	112,930	10.3%	0.030d.
Total	£1,091,759	100.0%	0.294d.

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A diagram showing the subdivision of the Commission's total production costs during the year 1932, is reproduced on the following page.

The balance representing the excess of total revenue over production costs (excluding Reserve Fund) for the year 1932 amounts to £116,352. The surplus brought forward from the year 1931 amounted to £7,696, so that the total surplus on Revenue Accounts at the end of the year 1932 amounted to £124,048. Amounts aggregating £112,930 were set aside to the Reserve Fund, leaving a surplus of £11,118, which has been carried forward to the year 1933.

Electricity
Sales, 1932.

The Commission's total electricity sales during the year 1932 amounted to 890,735,162 units, an increase of 23,648,893 units, or approximately 2.73% as compared with the year 1931.

The following statement shows the units sold to all consumers during the past seven years:—

UNITS SOLD.

Year.	Natal Central Undertaking	Witbank Undertaking.	Capetown Undertaking.	Durban Undertaking.	Sabie Undertaking.	Total.
1926 ...	719,666	160,031,213	280,242	—	727,401	161,758,522
1927 ...	104,206,235	439,061,722	5,811,836	—	1,938,940	551,018,733
1928 ...	114,213,037	464,267,213	31,038,697	15,563,460	2,829,888	627,912,295
1929 ...	123,911,774	543,091,138	47,945,690	78,873,576	3,176,173	796,998,351
1930 ...	117,075,484	618,951,364	49,772,016	99,228,000	4,585,060	889,611,924
1931 ...	101,131,880	603,359,113	52,109,958	103,899,765	6,585,553	867,086,269
1932 ...	100,292,933	610,285,123	64,268,873	109,808,223	6,080,010	890,735,162

The distribution of the units sold during 1932 as between the various classes of consumers was as follows:—

UNITS SOLD, 1932.

Undertaking.	Traction.	Bulk Supplies.	Industrial and Mining.	Domestic and Lighting.	Total.
Natal Central ...	82,315,828	14,986,557	2,653,157	337,391	100,292,933
Witbank ...	—	573,053,197	36,657,811	574,115	610,285,123
Capetown ...	30,141,811	18,239,573	15,155,595	731,894	64,268,873
Durban ...	—	109,808,223	—	—	109,808,223
Sabie ...	—	—	6,080,010	—	6,080,010
Totals ...	112,457,639	716,087,550	60,546,573	1,643,400	890,735,162

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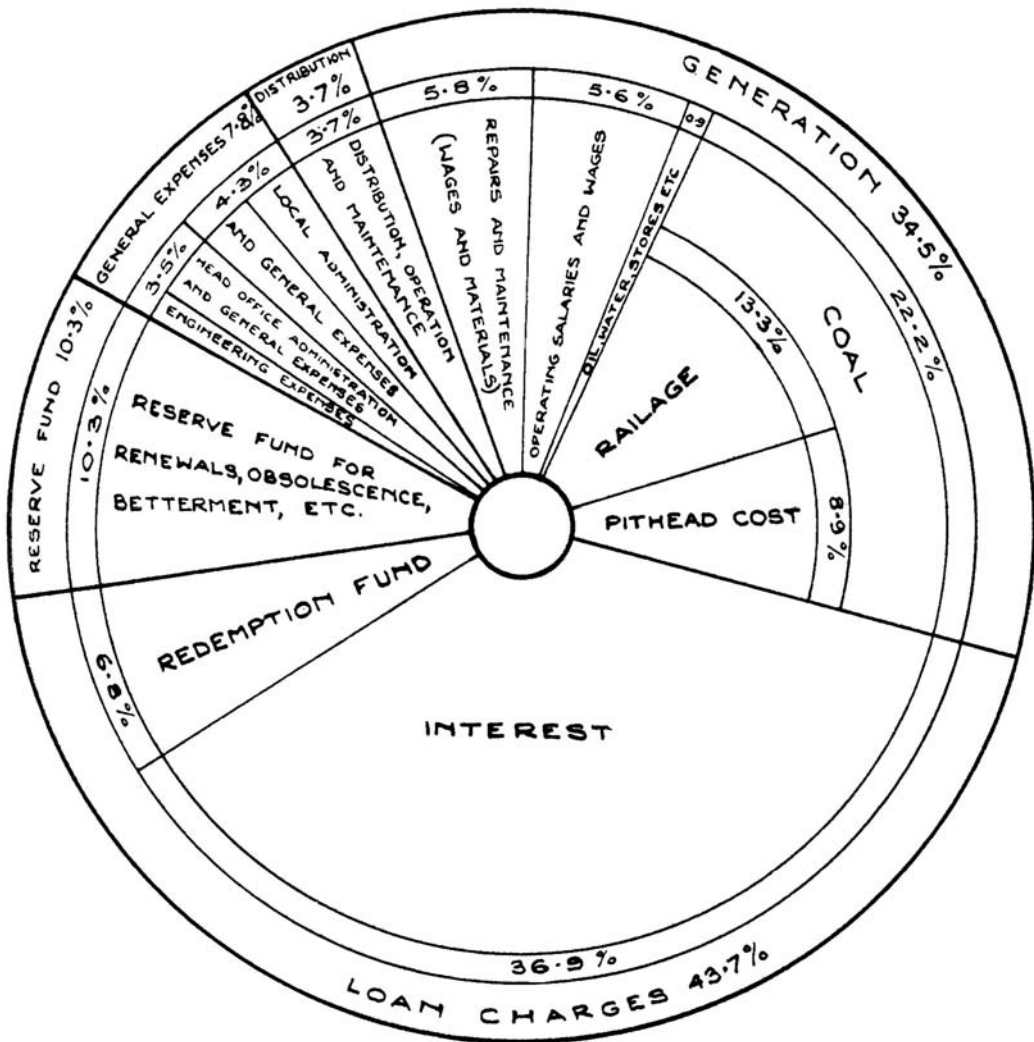
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Electricity Supply Commission.

DIAGRAMMATIC SUBDIVISION OF TOTAL PRODUCTION COSTS
DURING THE YEAR 1932.



NOTE.—Under the heading "General Expenses" is included miscellaneous expenditure such as maintenance of quarters, stores expenses, assessment rates, wayleaves, rents, insurance, audit expenses, pension fund contributions, legal expenses, etc.

A chart showing the progress of electricity sales to the different classes of consumers year by year is reproduced on the opposite page.

Average
Cost
per unit
sold, 1932.

The average cost per unit sold in 1932 from all the Commission's Undertakings was 0·294d., an increase of 0·008d. over the previous year, the higher cost of coal being one of the principal factors responsible for the increase.

Coal
Consumed,
1932.

During the year 1932 the coal consumed at the Commission's four steam-using power stations amounted to 795,333 tons.

Power Station.	COAL CONSUMED			B.T.U.'s.		Thermal Efficiency on Units Sent Out.
	Tons. (2,000 lbs.)	Per Unit Gener- ated. Lbs.	Per Unit Sent Out. Lbs.	Average per lb. of Coal.	Average per Unit Sent Out.	
Colenso (Natal Central) ...	85,579	1·49	1·60	12,330	19,700	17·8%
Witbank	572,227	1·76	1·87	11,210	21,010	16·2%
Salt River (Capetown) ...	55,333	1·61	1·70	13,100	22,300	15·3%
Congella (Durban)	82,194	1·37	1·50	12,710	19,000	18·0%

The following table shows the average cost of coal delivered at the Commission's power stations since 1930 :—

Power Station.	Average Cost per Ton (2,000 lbs.)		
	1932	1931	1930
Colenso	9/10	8/3	8/-
Witbank	2/4	2/2	2/2
Salt River	24/11	23/4	23/5
Congella	15/4	14/2	13/2

The total cost of coal in 1932, as delivered at these four power stations, was £241,954, of which £144,766, i.e., almost 60 per cent., represents railage and sidings charges. Omitting Witbank, where practically no railage is involved, railage and siding charges represent over 80 per cent. of the cost of coal.

The classes of coal used by the Commission at its power stations are :—

Power Station.	Class of Coal.
Colenso	Mixed Smalls.
Witbank	Duff, Peas and Round Coal.
Salt River	Peas.
Congella	Dross.

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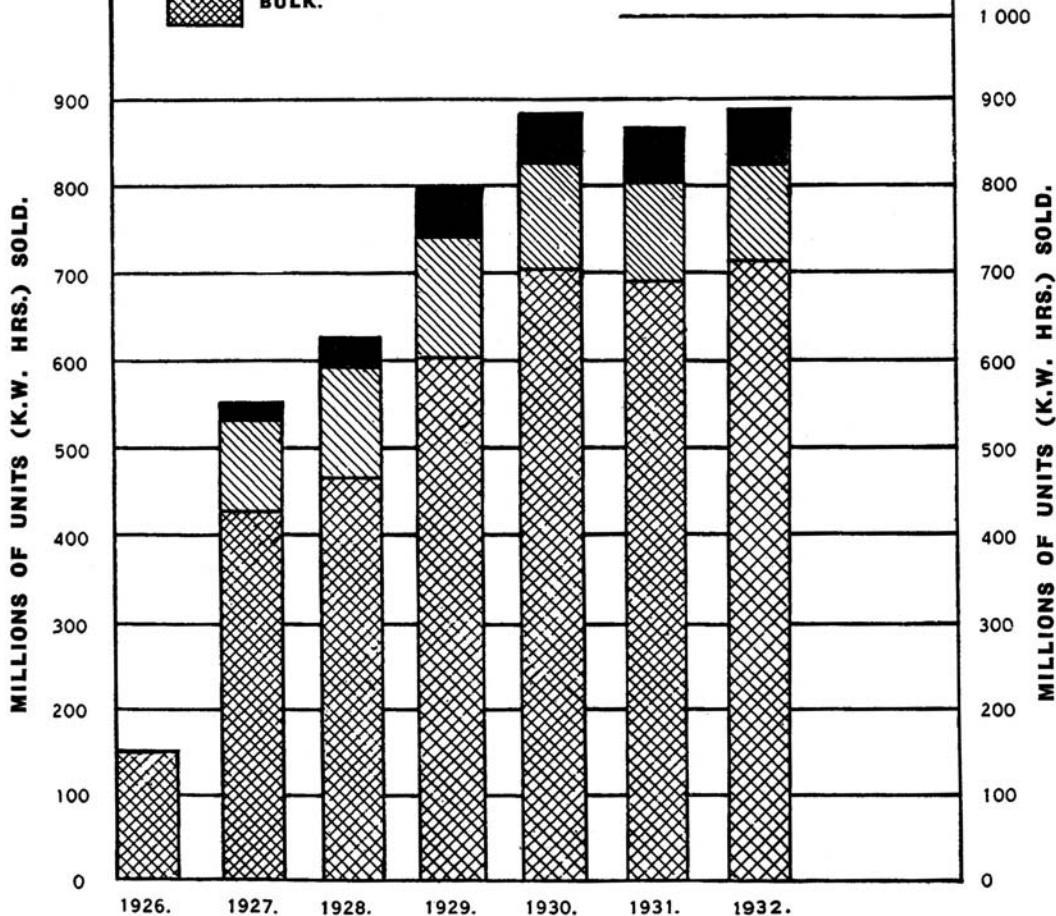
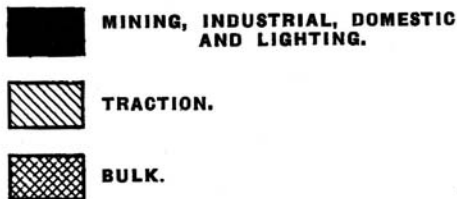
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Electricity Supply Commission.

DIAGRAM SHOWING TOTAL ELECTRICITY SALES.



Peas, mixed smalls, duff and dross (generally referred to as small coal) being a product of round coal, the quantity available is governed by the amount of round coal mined.

During the past few years the general demand for small coal has increased, whereas the demand for round coal has declined, principally due to the decreased requirements for bunkers and export as a result of the economic position, and in some degree to the extended use of electricity in the domestic sphere. The result has been that the price of small coal, which a few years ago was regarded as a waste product, has increased to the user.

Consumers.

The number of consumers being supplied with electricity from the Commission's Undertakings as at 31st December, 1932, was 2,236, an increase of 281 during the year.

The following table shows the number of consumers of the various classes at each Undertaking at the end of the year 1932:—

Undertaking.	Traction.	Bulk Supplies.	Industrial and Mining.	Domestic and Lighting.	Total.
Natal Central	1	7	24	215	247
Witbank	—	2	32	413	447
Capetown	1	5	60	1,473	1,539
Durban	—	1	—	—	1
Sabie	—	—	2	—	2
Totals	2	15	118	2,101	2,236

Units Sold to Each Class of Consumer expressed as a Percentage of Total Units Sold ...	12.63%	80.39%	6.80%	0.18%	100%
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The following is a list of Municipalities and other urban local authorities which obtain their electricity supplies from the Commission:—

CAPE.	TRANSVAAL.	NATAL.
Bellville.	Middelburg.	Colenso.
Durbanville.	Witbank.	Durban.
Goodwood.		Estcourt.
Kuils River.		Glencoe.
Malmesbury.		Ladysmith.
Paarl.		Mooi River.
Parow.		Newcastle.
Stellenbosch.		Pietermaritzburg.

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Kuils River.		Glencoe.
Malmesbury.		Ladysmith.
Paarl.		Mooi River.
Parow.		Newcastle.
Stellenbosch.		Pietermaritzburg.

Indirectly, electricity from the Commission's Undertakings is also supplied to a number of other urban local authorities.

The Report of the Auditors and the Commission's Balance Sheet as at 31st December, 1932, are embodied in Annexure " A " to this Report. Financial.

Loan Capital remains unchanged at £8,000,000 and is made up of loans of £3,000,000 and £5,000,000 from the Union Government, redeemable not later than 31st December, 1954 and 1979 respectively.

The Commission's Redemption Fund, in respect of the £3,000,000 loan, redeemable not later than 1954, stands at £354,002, as compared with £267,133 as at 31st December, 1931.

The Commission's Reserve Fund as at 31st December, 1932, stands at £465,408, as compared with £344,268 at the close of the year 1931.

With regard to the contributions to the Reserve Fund in respect of the two Undertakings, which the Auditors do not consider to be adequate, the intention, mentioned in the Commission's last Annual Report, to increase Reserve Fund contributions has been given effect to in respect of the year 1932.

During the year the policy of regular and complete overhauls to maintain the plant and works in a high state of efficiency has been continued with the object of avoiding breakdowns and accidents involving large withdrawals from Reserve and the Commission is pleased to be able to report that no breakdowns or accidents of a major nature have occurred during the year necessitating any appreciable expenditure from Reserve.

With regard to the Auditors' remarks in their Report under " Witbank Undertaking," it is hoped that an amicable settlement of the difference of opinion will soon be reached.

Separate accounts in respect of both Redemption and Reserve Funds are embodied in Annexure " A " to this Report.

The Commission's Capital Expenditure increased from £8,295,582 in 1931 to £8,411,667 as at 31st December, 1932. Net Revenue during construction and other amounts appropriated in

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reduction of Capital expenditure total £364,232, leaving a net expenditure on capital account amounting to £8,047,435. A Schedule of Expenditure on Capital Account is embodied in Annexure " A " to this Report.

Revenue and Expenditure Accounts in respect of each of the Commission's five Undertakings are embodied in Annexure " A " to this Report.

Tariffs.

The standard tariffs for the supply of electricity from the Commission's Undertakings and the conditions attaching thereto are embodied in the respective Licences and Permit granted to the Commission by the Electricity Control Board.

Annexure " B " to this Report sets out the standard prices at present in force. These prices are subject to variation in terms of Section 26 of the Electricity Act, 1922, depending upon the situation, extent and characteristics of the load.

Staff.

The staff employed by the Commission as at 31st December, 1932, as compared with the previous year, is as follows:—

			1932.		1931.		Difference.
Europeans	...	...	405	...	390	...	+ 15
Non-Europeans	...	...	240	...	274	...	- 34
Total	...	...	<u>645</u>	...	<u>664</u>	...	<u>- 19</u>

These figures exclude the staff employed at the Commission's Witbank Power Station, which is operated, on the Commission's behalf, by The Victoria Falls and Transvaal Power Company, Limited.

During the year under review the Commission introduced a scheme whereby employees were invited to put forward suggestions for effecting economies in operation at the Undertakings. A number of suggestions have been submitted, some of which have been adopted and suitable awards made to the employees concerned.

Generally the suggestions indicate that great interest has been taken by the employees in the scheme, and that much thought has been given to find ways and means to effect economies.

reduction of Capital expenditure total £364,232, leaving a net expenditure on capital account amounting to £8,047,435. A Schedule of Expenditure on Capital Account is embodied in Annexure " A " to this Report.

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It is gratifying to be able to record that no accidents of serious consequence have occurred to members of the Commission's staff during the year.

Mention was made in the Commission's last Annual Report of the successful operation of the scheme for the employment of white labour at Colenso Power Station.

During the period under review, the employment of a limited number of white labourers was given a trial at the Congella Power Station (Durban), and the indications to date point to the possibility of the scheme being successful.

In terms of Section 4 of the Electricity Act, No. 42 of 1922, the Commission may sell water, and in pursuance thereof is supplying unpurified water to the Witbank Municipality and purified water to the Colenso Local Board.

Sales of
Water.

With the extension of its activities in the supply of electricity to domestic users the Commission has established hire-purchase schemes for the sale of electric domestic appliances on the Natal Central, Witbank and Capetown Undertakings, and so far the advantage taken by consumers of the facilities offered is distinctly encouraging. With this facility, coupled with the very favourable tariffs offered, a steady increase in the use of electricity for domestic and lighting purposes is being experienced as shown by the following table:—

Sales of
Electricity
for
Domestic
Purposes.

SALES OF ELECTRICITY FOR DOMESTIC AND
LIGHTING PURPOSES.

Year.					Units Sold.
1928	...	...	...	...	400,625
1929	...	...	...	...	656,220
1930	...	...	...	...	1,009,170
1931	...	...	...	...	1,346,979
1932	...	...	...	...	1,643,400

The operations and developments of the individual Undertakings are reviewed in the following pages. Reference is also made therein to the Commission's work, in an advisory capacity to the Administrators of the several Provinces in relation to Municipal electricity supply schemes.

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NATAL CENTRAL UNDERTAKING.

The Natal Central Undertaking comprises a Power Station at Colenso, with an installation of 60,000 kilowatts, transmission lines extending northwards to Newcastle and southwards to Cato Ridge, thirteen main sub-stations for converting the supply from alternating to direct current for railway traction purposes, and a number of other subsidiary transmission and distribution lines and sub-stations at various points in the Commission's area of supply along this section of the route of the Natal main line of railway.

The capital expenditure on the Natal Central Undertaking to 31st December, 1932, was £3,474,903.

The units generated at the Colenso Power Station during the year 1932 total 114,775,580. The units sent out from the power station total 106,067,862, and the maximum half-hourly demand was 24,240 kilowatts, the load factor being 50·3 per cent.

The thermal efficiency of the power station on units sent out was 17·3 per cent.

The units sold during the year 1932 total 100,292,933, a decrease of 838,947, or 0·83 per cent. as compared with the year 1931.

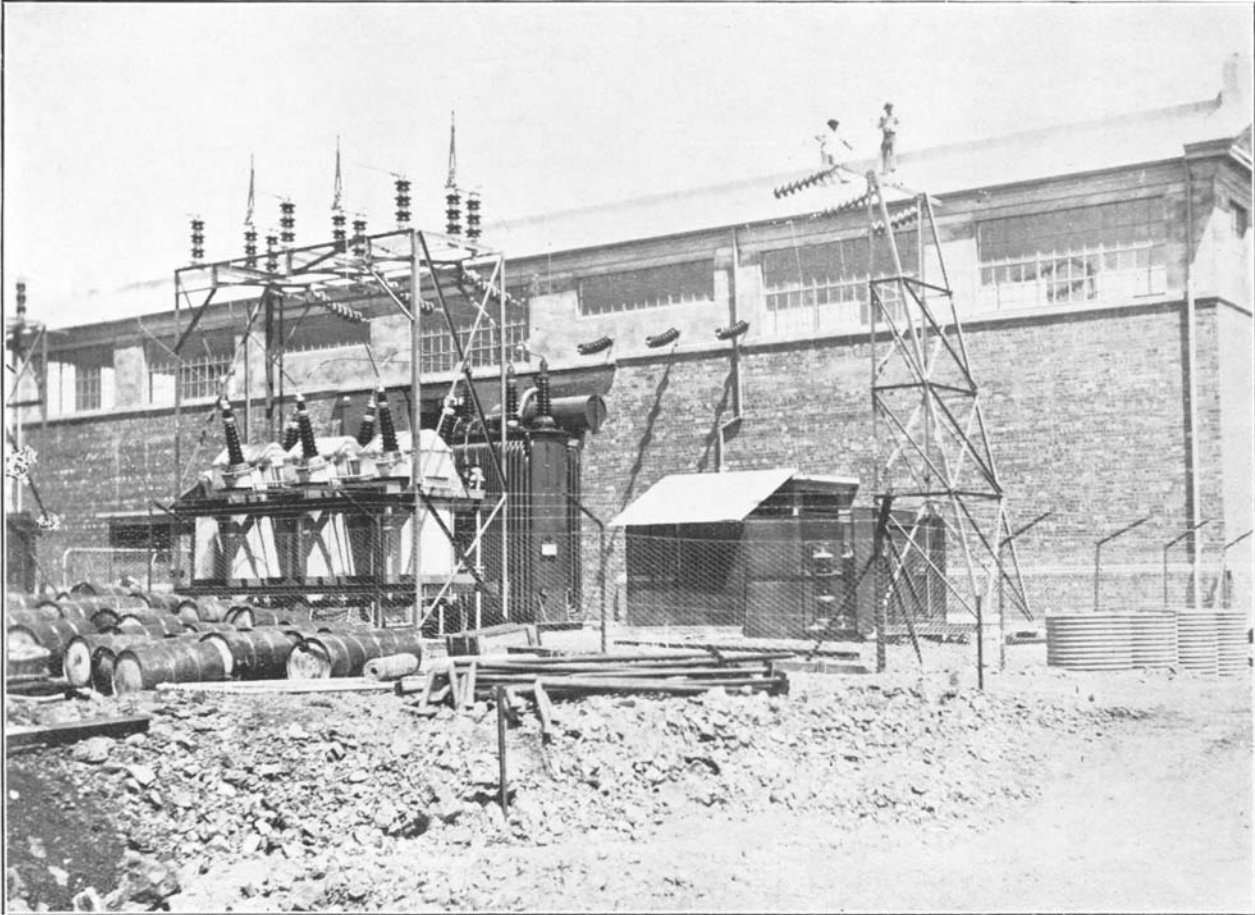
The sales to consumers other than the Railway Administration continue to increase as is shown hereunder:—

Year.					Units Sold.
1926	...	...	...	...	719,666
1927	...	...	...	...	1,894,952
1928	...	...	...	...	5,712,004
1929	...	...	...	...	10,719,177
1930	...	...	...	...	13,261,935
1931	...	...	...	...	15,013,299
1932	...	...	...	...	15,920,682

The financial results of the operation of the Natal Central Undertaking for the year 1932 are given in Annexure "A" (Account No. 3) to this Report. The balance of Revenue over Expenditure realised on the working of the Undertaking during the year amounted to £48,411. An amount of £47,677 was set aside to Reserve Fund and the balance of £734 has been carried forward to the year 1933.

During the period under review further extensions of the Commission's system of supply have been completed from time to time and a number are still in process of construction. Extensions.

An interesting feature of a number of the extensions is the use of the track structures on the electrified portion of the railway system for carrying subsidiary transmission lines, a facility afforded by the Railway Administration.



View of Thornybush Substation during Construction: Natal Central Undertaking.

WITBANK UNDERTAKING.

The Witbank Undertaking comprises a power station at Witbank, with an installation of 100,000 kilowatts and transmission and distribution systems radiating from the power station.

The Power Station is operated as a base load station interconnected through the system of The Victoria Falls and Transvaal Power Company, Limited, to four other power stations of the Company serving the Witwatersrand area, the Power Station being operated by The Victoria Falls and Transvaal Power Company, Limited, on behalf of the Commission.

The capital expenditure on the Witbank Undertaking to 31st December, 1932, was £2,096,490.

The units generated at the Witbank Power Station during the year 1932 total 649,680,492. The units sent out from the power station total 610,614,238, the hourly maximum demand was 89,954 kilowatts and the load factor 77·3 per cent. The thermal efficiency on units sent out was 16·2 per cent.

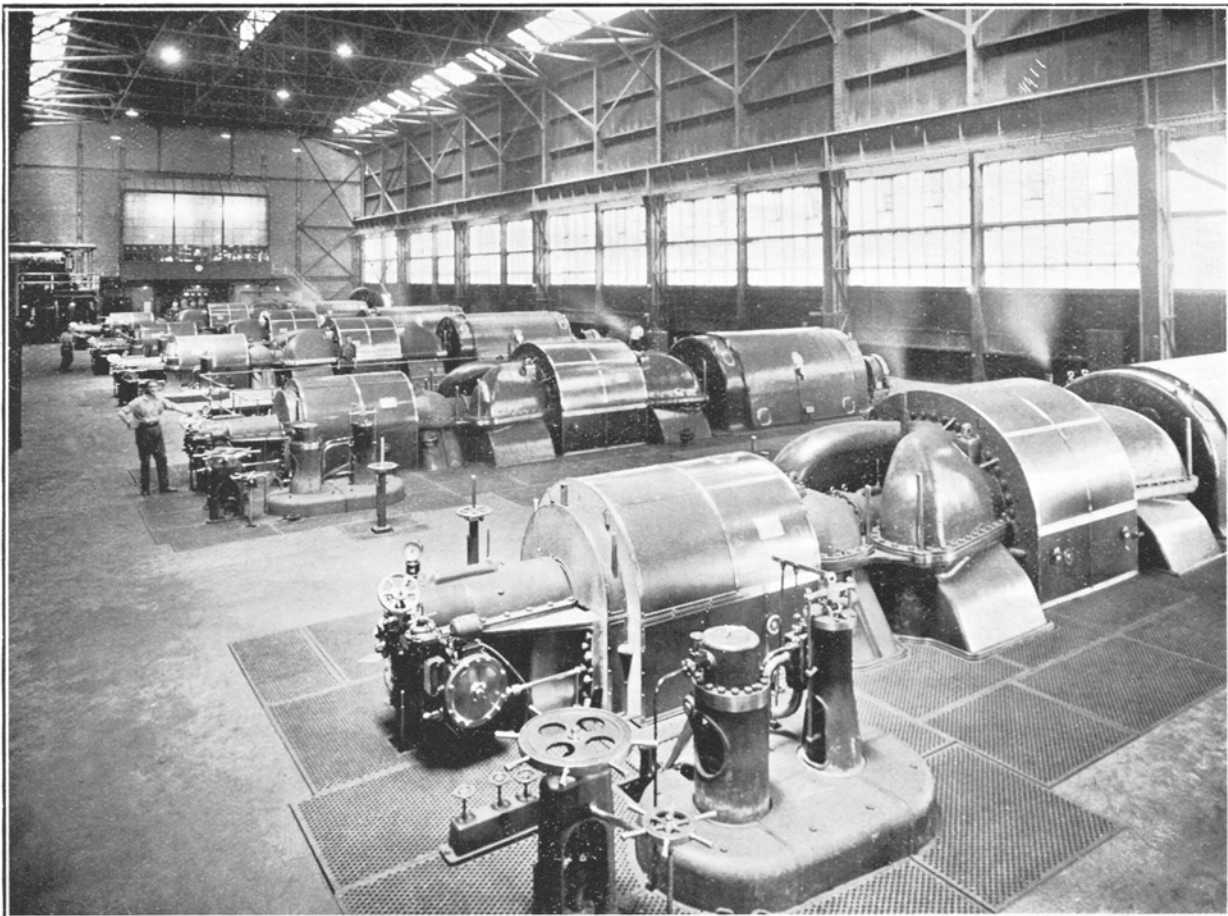
Working
Results, 1932.

The units sold from the Witbank Undertaking in 1932 total 610,285,123, of which 37,685,076 units were sold to consumers in the Witbank area. The development of sales in this area is reflected in the following table:—

Year.					Units Sold.
1926	...	...	...	...	499,057
1927	...	...	...	...	13,389,333
1928	...	...	...	...	19,950,004
1929	...	...	...	...	29,731,115
1930	...	...	...	...	34,962,217
1931	...	...	...	...	37,812,854
1932	...	...	...	...	37,685,076

The financial results of the operation of the Witbank Undertaking for the year 1932 are given in Annexure "A" (Account No. 4) to this Report. The balance of Revenue over Expenditure realised on the working of the Undertaking during the year amounted to £20,715, which, together with the amount of £8,206 brought forward from the year 1931, gave a surplus of £28,921. An amount of £22,000 was set aside to Reserve Fund and £6,921 has been carried forward to the year 1933.

WITBANK UNDERTAKING.



Witbank Power Station—Turbine Room.

CAPETOWN UNDERTAKING.

The Capetown Undertaking comprises a power station at Salt River, with an installation of 30,000 kilowatts, a transmission system feeding five substations on the Capetown-Simonstown line, for converting the supply from alternating to direct current for traction purposes, and a transmission system with step-down substations and distribution networks in the Paarl, Malmesbury and Stellenbosch Districts of the Cape Rural Area eastwards of Capetown.

The Power Station is inter-connected with the Capetown City Council's Dock Road Power Station, these stations being operated in parallel.

The Capital expenditure on the Capetown Undertaking to 31st December, 1932, was £1,730,613.

The units generated at the Salt River Power Station during the year 1932 total 68,573,810. The units sent out from the power station total 65,172,086, and the maximum half-hourly demand was 18,279 kilowatts, the load factor being 40·8 per cent. The thermal efficiency of the power station on units sent out was 15·3 per cent.

Working
Results, 1932.

The units sold during the year 1932 total 64,268,873, an increase of 12,158,915, or 23·33 per cent. as compared with the year 1931. The units supplied to the Railway Administration for traction purposes on the Capetown - Simonstown line total 30,141,811, an increase of 251,551, or about 0·84 per cent as compared with the previous year. There has been an increase of 5·94 per cent. in the supplies from the Commission's system in the Cape Rural area. The development of sales on this system is shown in the following table:—

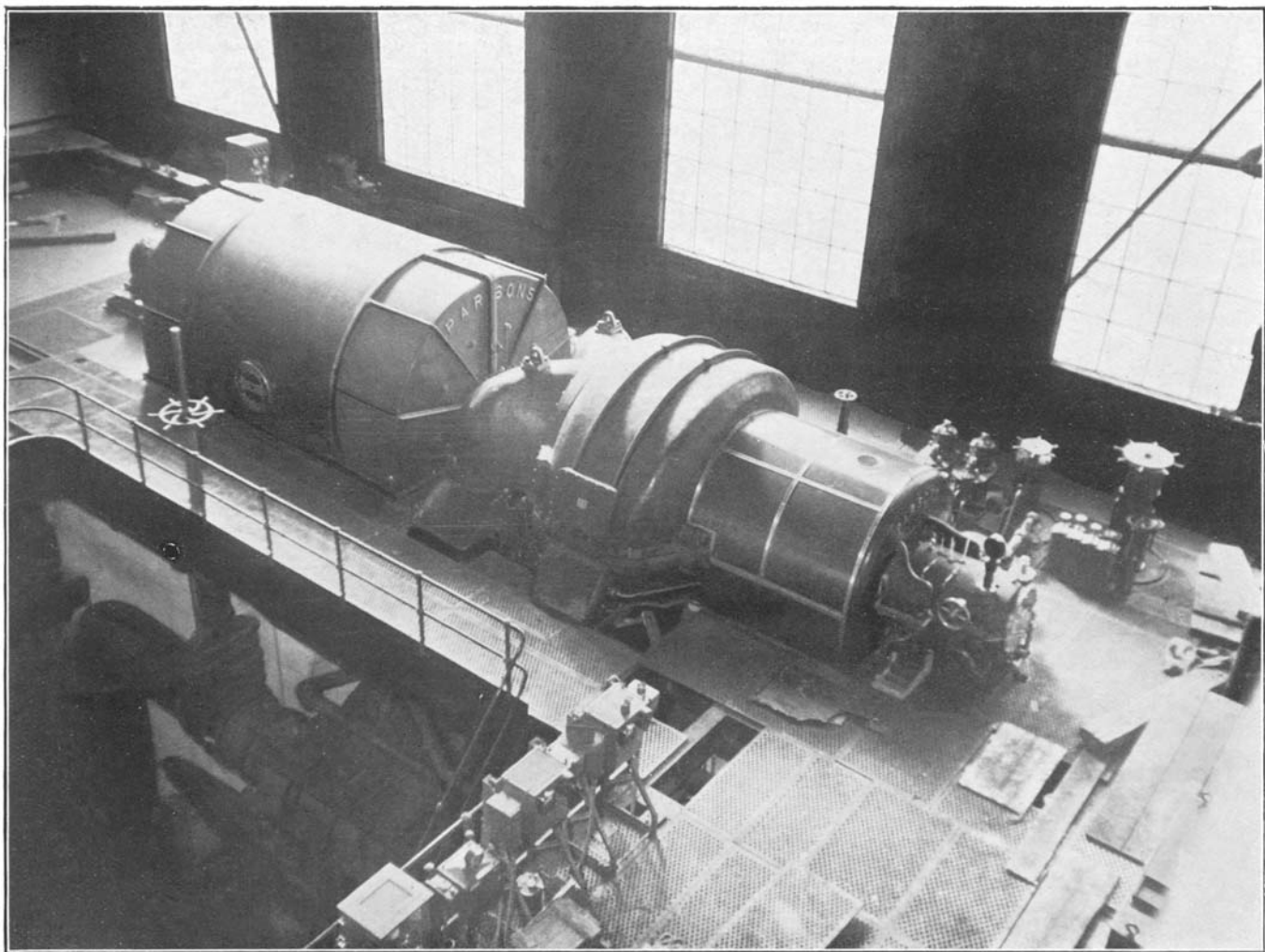
Year.					Units Sold.
1926	...	...	...	...	280,242
1927	...	...	...	...	4,690,009
1928	...	...	...	...	9,767,699
1929	...	...	...	...	11,231,658
1930	...	...	...	...	13,182,512
1931	...	...	...	...	13,917,803
1932	...	...	...	...	14,744,433

The financial results of the operation of the Capetown Undertaking for the year 1932 are given in Annexure " A " (Account No. 5) to this report. The balance of Revenue over Expenditure realised on the working of the Undertaking during the year amounted to £21,123; £22,253 was set aside to Reserve Fund, leaving a net deficit of £1,130, which, together with the deficit of £2,795 brought forward from 1931, was carried forward to the year 1933.

Extensions.

Extensions of the Power Station at Salt River commenced last year, are nearing completion, and in order to meet the growing requirements of the consumers of the City of Capetown and the Commission, a further 20,000 kilowatt Turbo Alternator set and ancillary plant has been ordered, which it is expected will be in commission to meet the winter load of 1934.

The set will be identical with the new set now in course of installation, the pressure of generation being 33,000 volts.



Salt River Power Station: 20,000 K.W. Turbine in course of erection.

DURBAN UNDERTAKING.

The Commission's Durban Undertaking supplies electricity in bulk to the Durban Corporation and comprises a power station at Congella with an installation of 48,000 kilowatts. The steam raising plant comprises eight boilers, six each of a normal capacity of 60,000 lbs. of steam per hour and two each of a normal capacity of 100,000 lbs. of steam per hour. The boilers at the Congella Power Station are fired with pulverised fuel.

The Capital expenditure on the Durban Undertaking to 31st December, 1932, was £996,373.

Working
Results, 1932.

The units generated at the Congella Power Station in 1932 total 119,770,300. The units sent out from the power station total 109,808,223 and the maximum half-hourly demand was 30,000 kilowatts, the load factor being 41·7 per cent. The thermal efficiency of the power station on units sent out was 18·0 per cent.

The units supplied to the Durban Corporation during the year 1932 total 109,808,223, i.e., the same as the "units sent out," delivery of the supply being taken by the Corporation at the power station. The increase in the supply, as compared with the year 1931, was 5,908,458 units, or 5·69 per cent.

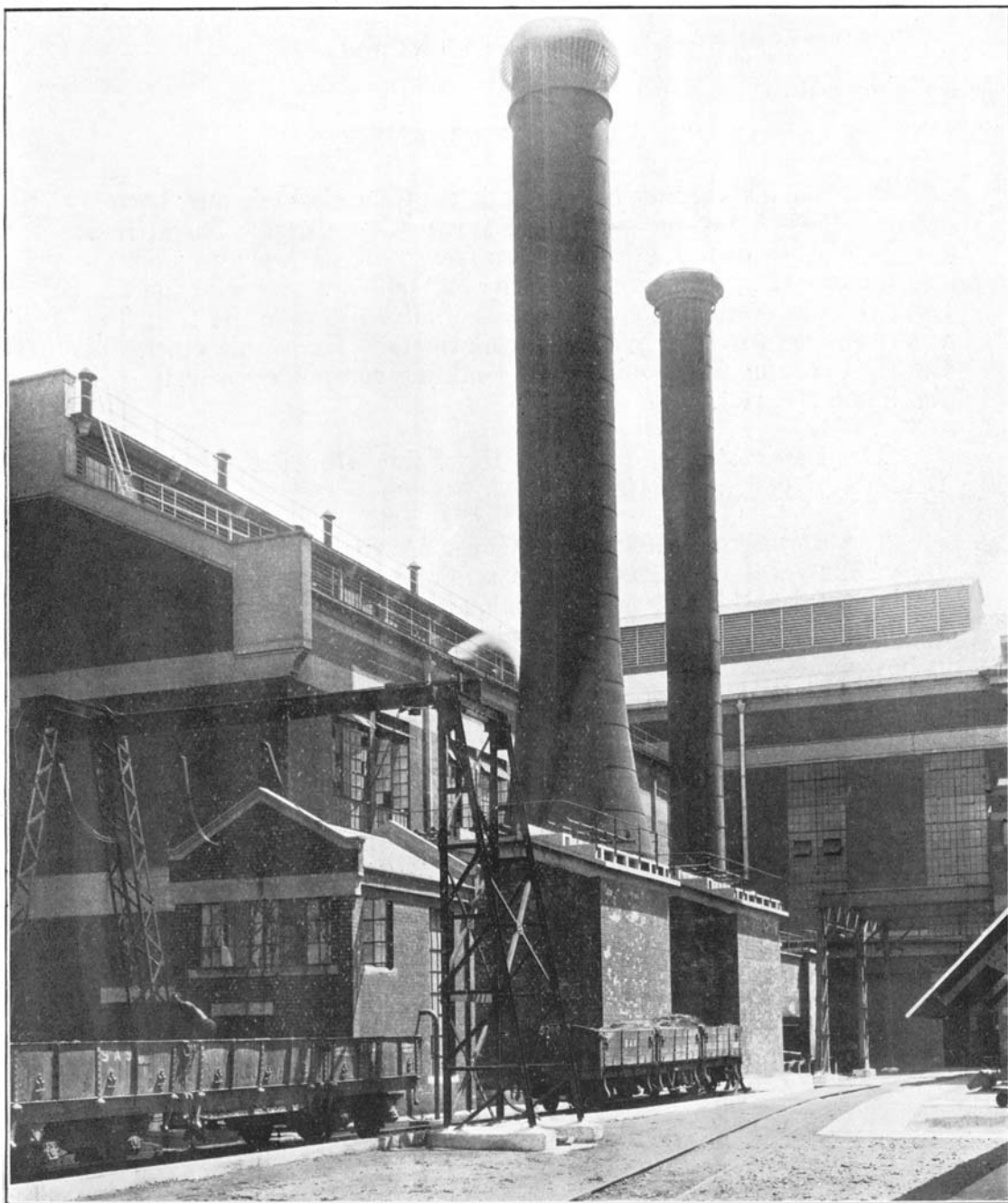
The financial results of the operation of the Durban Undertaking, for the year 1932, are given in Annexure "A" (Account No. 6) to this Report. The balance of Revenue over Expenditure realised on the working of the Undertaking during the year amounted to £25,125, which, together with the amount of £2,251 brought forward from the year 1931, resulted in a surplus of £27,376. £20,000 was set aside to Reserve Fund and £7,376 carried forward.

Extentions

During the year the installation of a 12,000 kilowatt Turbo Alternator and two 100,000 lbs. of steam per hour boilers was completed, and in order to provide a reasonable reserve of spare plant a 20,000 kilowatt Turbo Alternator set has been ordered.

A new agreement with the Durban Corporation came into force during May, 1932, whereby the tariff to the Corporation was substantially reduced, and as a result of the year's working it was found possible to make a further reduction in the tariff as from 1st January, 1933.

DURBAN UNDERTAKING.



Congella Power Station, showing Ash Settling Chambers.

SABIE UNDERTAKING.

The Sabie Undertaking, which is the Commission's only hydro-electric scheme, comprises a power station on the Sabie River, in a gorge about eight miles downstream from Sabie Township, with an installation of 1,350 kilowatts, and a 22,000-volt transmission line from the power station to a substation situated near the township where the supply is delivered to consumers. The whole output of the Undertaking is supplied to two mining companies operating in the Sabie District.

The Capital expenditure on the Sabie Undertaking to 31st December, 1932, was £106,085.

Working
Results, 1932.

The units generated at the Gorge Power Station during the year 1932 total 6,402,200. The units sent out from the power station total 6,314,200, and the half-hourly maximum demand was 1,160 kilowatts, the load factor being 62·0 per cent

As the output exceeded the amount which the Commission is entitled to supply in terms of the Permit granted to it in 1925, application was made to the Electricity Control Board for a Licence for the Undertaking, which was granted on 11th March, 1933.

The financial results of the operation of the Sabie Undertaking for the year 1932 are given in Annexure " A " (Account No. 7) to this Report. The balance of Revenue over Expenditure realised on the working of the Undertaking during the year was £978, which, together with the surplus of £34 brought forward from the year 1931, gave a surplus of £1,012, of which £1,000 was set aside to Reserve Fund and the balance of £12 carried forward.

MUNICIPAL ELECTRICITY SUPPLY SCHEMES.

Up to 31st December, 1932, 235 municipal electricity schemes have been reported on by the Commission in terms of Section 38 of the Electricity Act, 1922, and supplementary reports upon tenders have been submitted in respect of 106 schemes.

During the year 1932, the following schemes were reported upon by the Commission, viz. :—

CAPE.		
New Schemes.	Extension Schemes.	Tenders.
Porterville	Alice	Beaufort West
Vryburg	Beaufort West	Bedford
	Bedford	Grahamstown
	Caledon	Montagu
	Grahamstown	Porterville
	Montagu	Riversdale
	Mossel Bay	Tulbagh
	Riversdale	
	Worcester	
TRANSVAAL.		
Lichtenburg	Johannesburg	
ORANGE FREE STATE.		
Theunissen	Kroonstad	Bothaville
	Parys	Winburg
	Senekal	
NATAL.		
Eshowe	Port Shepstone	

Of the total of 235 municipal electricity schemes reported upon by the Commission up to the end of the year 1932, 103 were new schemes.

GRAPH SHOWING GROWTH IN THE
NUMBER OF MUNICIPALITIES AND
OTHER LOCAL AUTHORITIES IN THE
UNION OF SOUTH AFRICA AND SOUTH-
WEST AFRICA WITH ELECTRICITY
SUPPLY SCHEMES.

1911—1932.

200

180

160

140

120

100

80

60

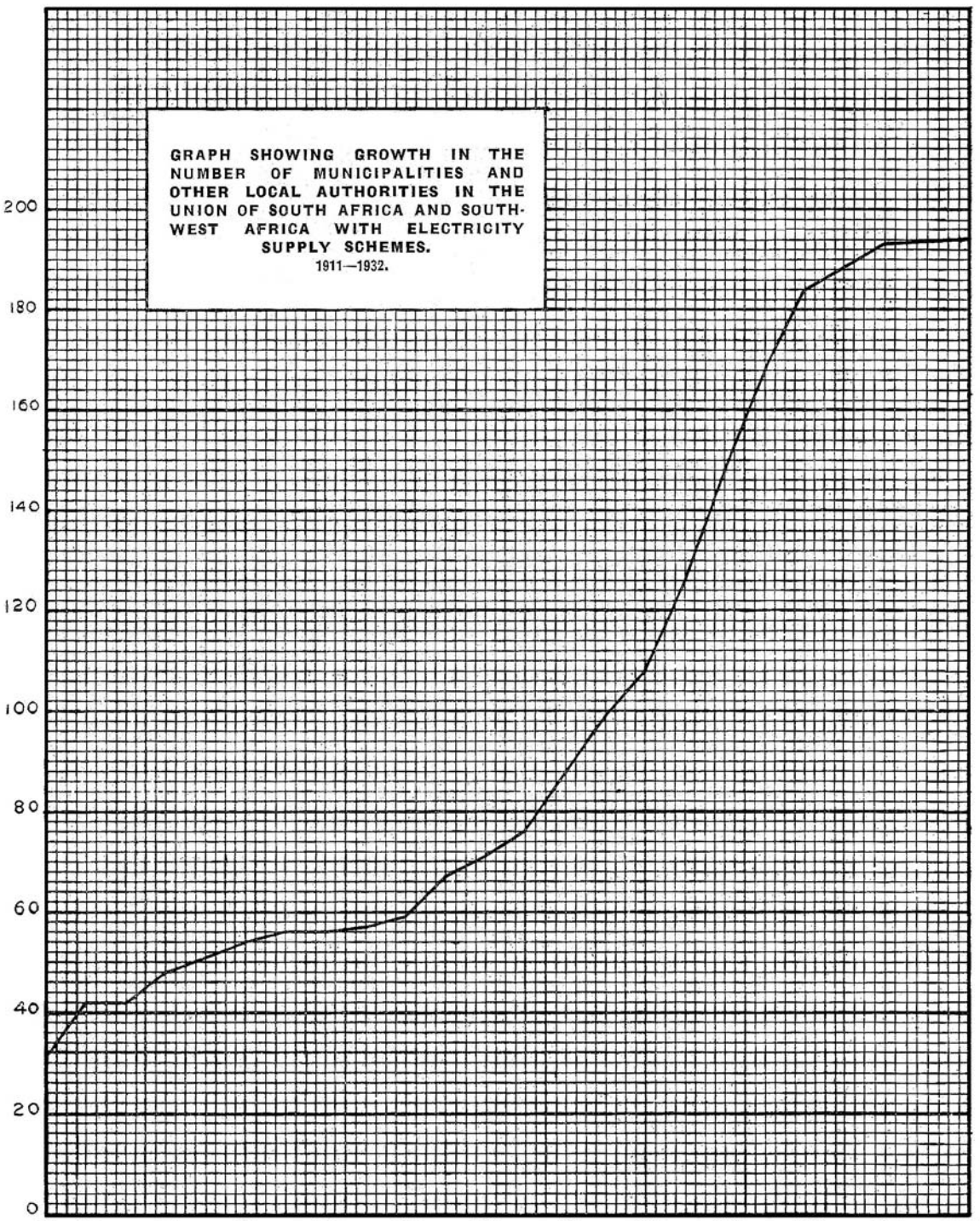
40

20

0

1911 1912 1914 1916 1918 1920 1922 1924 1926 1928 1930 1931 1932

YEAR



The following table shows the total numbers of Local Authorities in the respective Provinces in the Union and in South West Africa, and the numbers in each case which have established, or are in course of establishing, electricity supply schemes:—

LOCAL AUTHORITIES IN UNION AND SOUTH-WEST AFRICA.

	Cape.	Trans- vaal.	O.F.S.	Natal.	S.-W. Africa.	Total.
No. of Municipalities	129	27	61	9	8	234
No of Other Local Authorities	182	66	7	36	8	249
Total ...	261	93	68	45	16	483

Local Authorities with Electricity Supply Schemes.

Local Authorities Generating and Distributing Electricity:

Established	63	18	27	8	2	118
Under Construction or Tenders called for	—	—	—	—	—	0
Total ...	63	18	27	8	2	118

Local Authorities Purchasing Bulk Supplies and Carrying out their own Distribution:

Established	15	24	2	9	—	50
Under Construction	—	—	—	—	—	0
Total ...	15	24	2	9	—	50

Cases in which Supply and Distribution Undertaken by Third Parties:

Established	9	4	—	10	3	26
Under Construction	—	—	—	—	—	0
Total ...	9	4	—	10	3	26

Total Schemes Established	87	46	29	27	5	194
Total Schemes under Construction	—	—	—	—	—	0
Grand Total	87	46	29	27	5	194

ACCOUNTS.

The Commission submits for the year 1932, as Annexure "A" to this Report:—

The Report of the Auditors.

Balance Sheet.

Schedule of Expenditure on Capital Account.

Statement showing the Investments of the Redemption Fund.

Account No. 1: Redemption Fund Account.

Account No. 2: Reserve Fund Account.

Revenue and Expenditure Accounts in respect of

Account No. 3: Natal Central Undertaking.

Account No. 4: Witbank Undertaking.

Account No. 5: Capetown Undertaking.

Account No. 6: Durban Undertaking.

Account No. 7: Sabie Undertaking.

TARIFFS.

Annexure "B" to this Report embodies the standard prices in force in respect of the Commission's several Undertakings.

GENERAL.

The Commission submits, for the year 1932, as Annexure "C" the following statements:—

No. 1: Summary of principal plant and equipment installed.

No. 2: Summary of principal plant and equipment in course of installation or on order.

No. 3: Statement showing the price or rent of land or rights or interest in or over land and other property acquired or hired by the Commission.

I have the honour to be,

Sir,

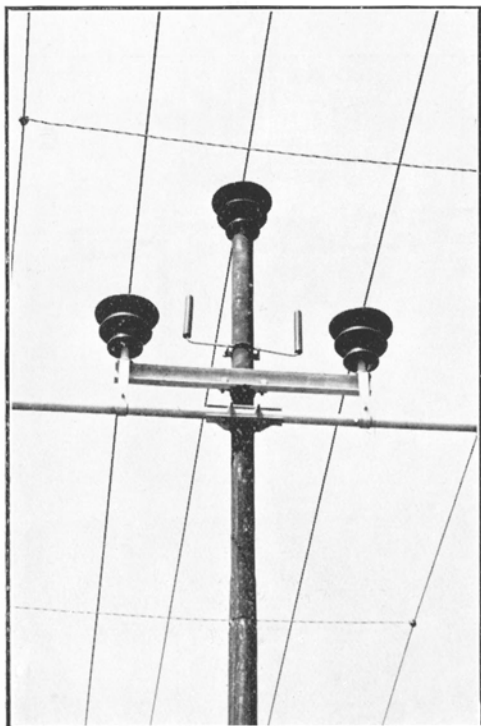
Your obedient servant,



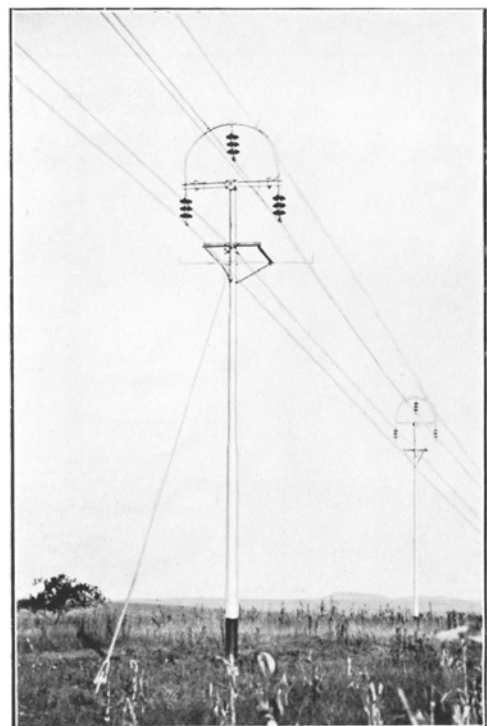
CHAIRMAN.



33 K.V. Transmission Line. Capetown Undertaking.

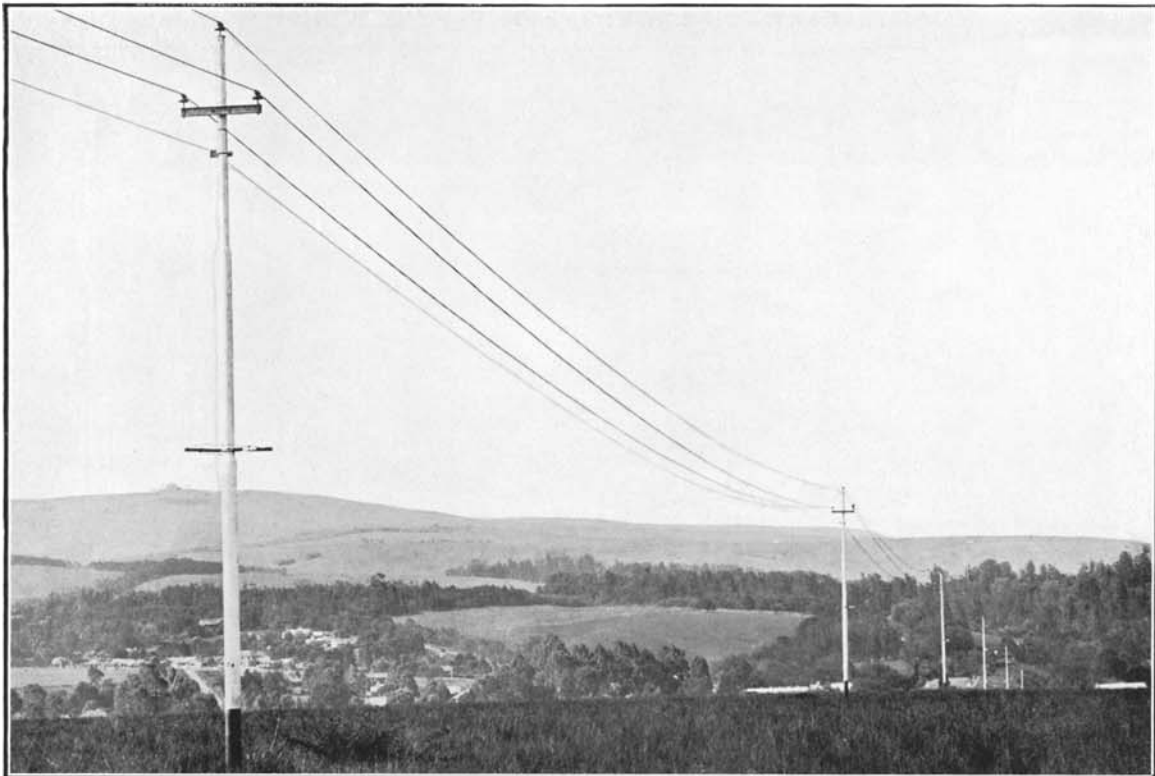


33 K.V. Transmission Lines,
Capetown Undertaking.

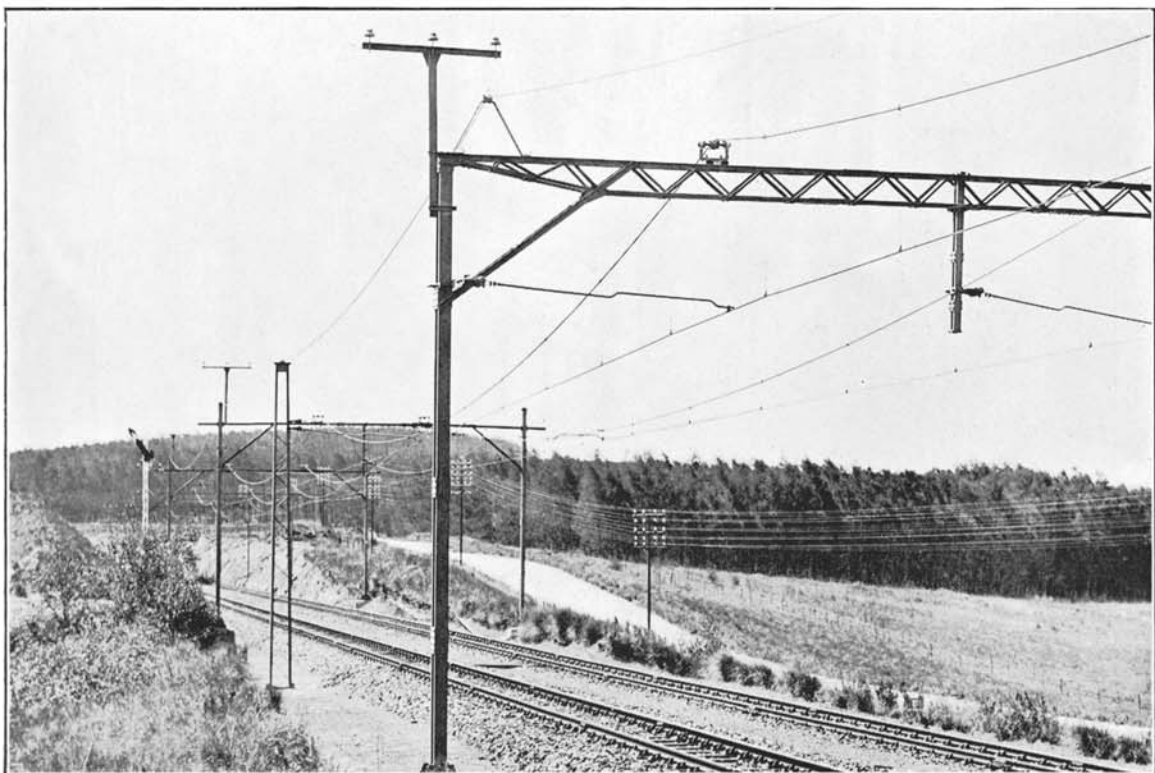


33 K.V. Transmission Lines,
Natal Central Undertaking.

TRANSMISSION LINES: TYPES OF CONSTRUCTION.

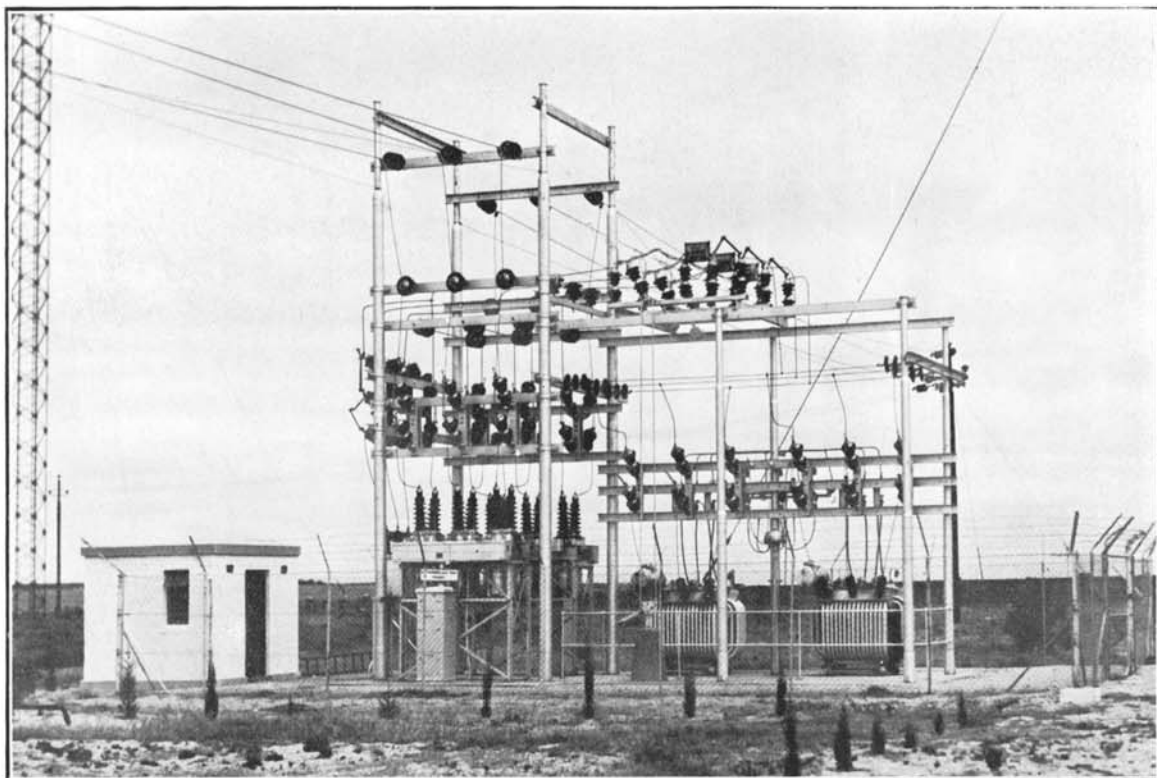


6.6 K.V. Transmission Line: Natal Central Undertaking.

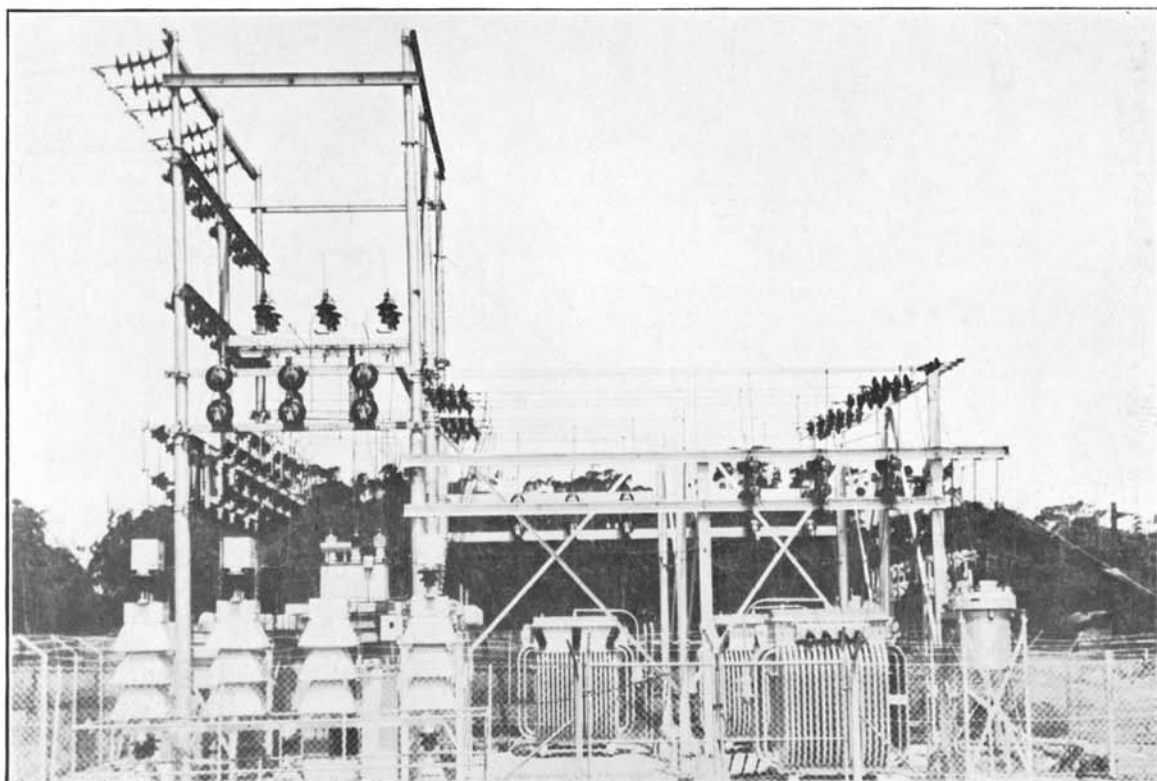


6.6 K.V. Transmission Line on Track Structures: Natal Central Undertaking.

OUTDOOR SUBSTATIONS: TYPES OF CONSTRUCTION.

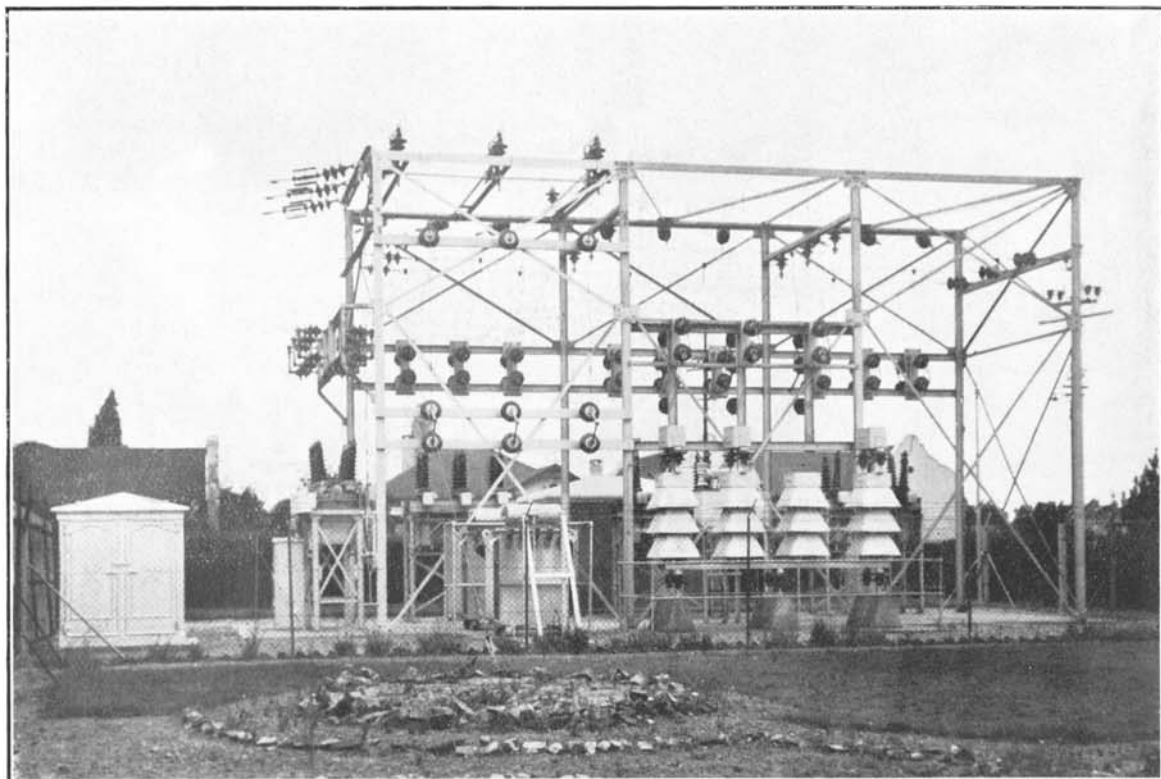


33 K.V. Substation, Capetown Undertaking.

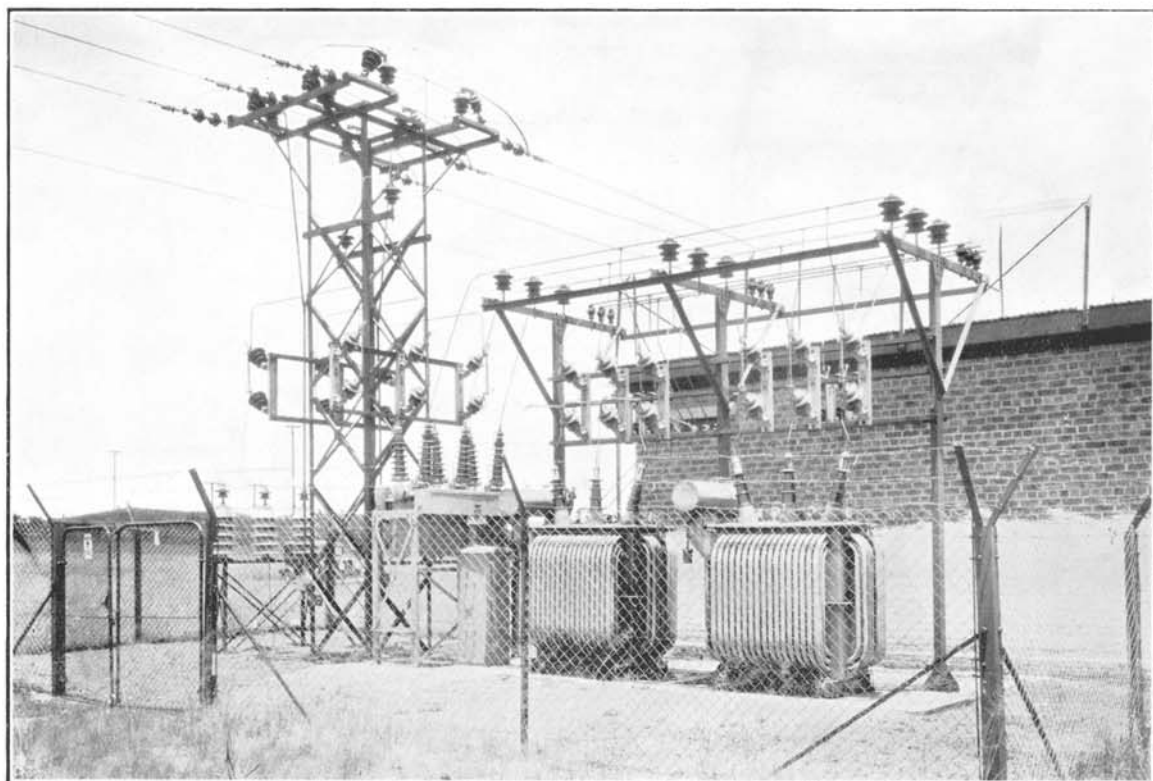


33 K.V. Substation, Capetown Undertaking.

OUTDOOR SUBSTATIONS: TYPES OF CONSTRUCTION.



33 K.V. Substation, Capetown Undertaking.



Typical 21 K.V. Substation, Witbank Undertaking.

ANNEXURE "A": ACCOUNTS.

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Schedule of Expenditure on Capital Account.

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Account No. 3: Natal Central Undertaking.

Account No. 4: Witbank Undertaking.

Account No. 5: Capetown Undertaking.

Account No. 6: Durban Undertaking.

Account No. 7: Sabie Undertaking.

THE REPORT OF THE AUDITORS.

Johannesburg,

29th May, 1933.

The Chairman and Members,
Electricity Supply Commission,
Johannesburg.

GENTLEMEN,

We have completed the audit of the Books and Accounts for the year ended December 31st 1932 and have to report as follows:—

CHARGES TO CONSUMERS AT NATAL CENTRAL AND CAPETOWN UNDERTAKINGS.

During the first six months of the year, the bases of charging the South African Railways and Harbours Administration, which were in force during the previous year, were maintained. From the 1st July, 1932, the Administration was placed on tariffs at both Undertakings.

At Capetown arrangements have existed for interchange of energy with the Capetown Corporation designed to benefit both parties. Up to the end of 1931 the quantity of energy supplied by each party to the other approximately balanced. During 1932 the Commission supplied a substantial excess of energy. The charge for this excess supply has been made on a basis mutually agreed to. The amount charged by the Commission for such excess supply and included in the Revenue Account as "Bulk Sales of Electricity" has amounted to £10,690 7s. 2d.

WITBANK UNDERTAKING.

The differences of opinion between the Commission and The Victoria Falls and Transvaal Power Co. Ltd. in connection with the interpretation of the agreement for the operation of the Witbank Station which were referred to in our report on the 1931 Accounts are still unsettled. As a result the amount included in the Balance Sheet as due to the Commission exceeds by £1,433, the sum admitted by the Company. No provision has been made for an amount, if any, which may have to be allowed by the Commission to the Company.

DEPRECIATION AND OBSOLESCENCE OF PLANT.

In our last Report we drew attention to the fact that in terms of Section 3 of the Financial Adjustments Act 1930 the Commission was precluded until 1940 from making any allowance for redemption of the loan of £5,000,000 advanced by the Union Government.

Such a provision for Redemption taken in conjunction with an adequate appropriation to Reserve Fund might have been sufficient to cover depreciation and obsolescence of Plant and Works at the Natal Central and Capetown Under-

takings to which this loan had been allocated by the Commission. The appropriation to Reserve Fund at both these Undertakings in respect of the bulk of the Capital Expenditure thereat has been increased in 1932 from 1% to 1½% of the capital cost. The Commission in their report on their operations for the year 1931 draw attention to the fact that contributions from the revenue of both these Undertakings were made to a fund for the repayment of advances received from the Treasury. The contributions referred to together with interest accrued thereon to December 31st 1929 amounted to £218,751 and are shewn in the Balance Sheet in reduction of the Capital Expenditure as at that date. This procedure with the appropriations previously made to the Reserve Fund had the effect, in our opinion, of providing adequate provision for depreciation and obsolescence of Plant etc. at these two Undertakings during the period from commencement of Commercial operation to the end of 1929. From the beginning of 1930, however, the Commission has been prevented by the passing of Section 3 of the Financial Adjustments Act 1930 from continuing to provide any form of redemption for the £5,000,000 loan. The only charge against the working costs of the Undertakings to cover depreciation etc. has been through the appropriations to Reserve Fund.

Certain limitations were placed on the Reserve Fund by the Electricity Act as the Act contemplated that provision would, in addition, be made for redemption of loans. As redemption of the £5,000,000 loan is postponed until 1940 we do not consider that the appropriations to Reserve Fund alone can be regarded as adequate to provide for general depreciation and obsolescence at the two Undertakings concerned.

In the case of the Durban, Witbank and Sabie Undertakings we consider that the appropriations for the Redemption and Reserve Funds, taken in conjunction, comprise an adequate provision for depreciation and obsolescence.

INVESTMENTS OF REDEMPTION AND RESERVE FUNDS.

These investments appear in the Balance Sheet at cost. At December 31st 1932 the market value was slightly below the cost figures. Since the end of 1932 the investments have appreciated considerably.

The assets of the Redemption Fund (including the amount due by the General Fund) are in excess of the amount required in the Fund at 31st December 1932 to redeem the No. 1 loan in terms of the Act.

It will be noted that in the case of both the Redemption and Reserve Funds the investments in specific securities were considerably less than the amount of the respective Funds. The differences under-invested were due to the respective Funds by the General Fund of the Commission, and these amounts pending the raising of further loans, have been utilised for the general purposes of the Commission.

Further loans have since been raised and specific investments made to cover the amounts so under-invested at the end of 1932.

HEAD OFFICE ADMINISTRATION AND ENGINEERING EXPENSES.

As contemplated in Section 11 (2) of the Electricity Act the Commission has, as previously, made an allocation of overhead and administration charges as between the various Undertakings. The figures of the expenditure under

the heading of " Head Office Administration and General Expenses " appearing in the Revenue Accounts of the Undertakings are shown after deducting certain credits for interest received on temporary investments accruing to each Undertaking. Certain minor alterations have been made in the basis of the allocation of expenditure as between certain of the Undertakings during the year.

GENERAL.

As the result of our audit of the Books and Accounts of the Commission for the year 1932, 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 in view of the circumstances as explained in this report.
- (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.

Incorporated under the Electricity Act, 1922.

BALANCE SHEET at 31st DECEMBER, 1932.

Loan Capital	£8,000,000 0 0
Government of the Union of South Africa:	
Loan No. 1, redeemable not later than 31st December, 1954	£8,000,000 0 0
Loan No. 2, redeemable not later than 31st December, 1979	5,000,000 0 0
<hr/>	
Sundry Creditors and Credit Balances	62,477 6 6
Pension Fund	37,826 10 11
Redemption Fund (Loan No. 1)	354,001 16 7
(As per Account No. 1.)	
Provision for Redemption (Loan No. 3)	1,720 16 3
Reserve Fund	465,408 1 1
(As per Account No. 2.)	
Balance on Revenue Accounts	11,117 11 2
(As per Accounts Nos. 3 to 7.)	
Natal Central Undertaking	734 9 2
Witbank Undertaking	6,921 4 7
Durban Undertaking	7,375 12 4
Sabie Undertaking	11 11 4
	<hr/>
	15,042 17 5
Less—Capetown Undertaking	3,925 6 3
	<hr/>

NOTE.—In addition to the liabilities shown above, the Commission is committed to the extent of approximately £228,000 for extension of its Undertakings; also approximately £4,800 chargeable against Reserve Fund.

£8,932,552 2 6

Expenditure on Capital Account—	
(As per Schedule attached.)	
Land and Rights	£79,520 3 3
Buildings and Civil Works	2,409,569 8 1
Machinery and Plant	5,783,881 12 1
Miscellaneous Equipment	138,695 15 10
	<hr/>
	£8,411,666 19 3
Less—Net Revenue during Construction	145,480 18 10
Provision made prior to Financial Adjustments Act, 1930, for repayment of advances, appropriated in reduction of Capital Expenditure	218,750 12 10
	<hr/>
	864,231 11 8
	<hr/>
	8,047,435 7 7
Stores and Materials	89,752 8 11
Sundry Debtors and Debt Balances	88,658 17 4
Cash on Current Account	18,688 4 6
Investment of Redemption Fund (Loan No. 1)	297,402 10 9
(As per Statement attached.)	
Investment of Reserve Fund	390,619 13 5
Amount invested in Union Government and Municipal stocks, also Debentures guaranteed by the Union Government	384,370 5 3
Interest Accrued	6,249 8 2
	<hr/>

£8,932,552 2 6

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

Referred to in our Report of 29th May, 1933.

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

Electricity Supply Commission.

SCHEDULE OF EXPENDITURE ON CAPITAL ACCOUNT to 31st December, 1932

Expenditure in connection with Electricity Undertakings.	Total to 31st December, 1931.	Year ended 31st December, 1932.	Total to 31st December, 1932.
NATAL CENTRAL UNDERTAKING:			
Land and Rights	£18,342 0 0	£179 19 5	£18,521 19 5
Buildings and Civil Works	788,647 3 4	3,188 18 7	791,836 1 11
Machinery and Plant	2,630,581 4 7	9,356 11 10	2,639,937 16 5
Miscellaneous Equipment	26,124 19 4	Cr. 1,517 17 10	24,607 1 6
	£3,463,695 7 3	£11,207 12 0	£3,474,902 19 3
<i>Less—</i>			
Net Revenue during Construction	2,210 10 6	—	2,210 10 6
Provision made prior to Financial Adjustments Act, 1930, for repayment of Advances, appropriated in reduction of Capital Expenditure	200,767 19 10	—	200,767 19 10
	£3,260,716 16 11	£11,207 12 0	£3,271,924 8 11
WITBANK UNDERTAKING:			
Land and Rights	£9,035 19 2	—	£9,035 19 2
Buildings and Civil Works	564,589 12 1	£8,409 7 0	572,998 19 1
Machinery and Plant	1,476,414 19 7	Cr. 21,444 18 8	1,454,970 0 11
Miscellaneous Equipment	45,072 19 11	14,411 18 9	59,484 18 8
	£2,095,113 10 9	£1,376 7 1	£2,096,489 17 10
<i>Less—</i> Net Revenue during Construction	103,448 14 11	—	103,448 14 11
	£1,991,664 15 10	£1,376 7 1	£1,993,041 2 11
CAPETOWN UNDERTAKING:			
Land and Rights	£21,697 8 10	£65 12 10	£21,763 1 8
Buildings and Civil Works	621,916 15 8	8,424 16 0	630,341 11 8
Machinery and Plant	977,018 11 0	63,591 15 6	1,040,610 6 6
Miscellaneous Equipment	37,666 1 1	232 8 8	37,898 9 9
	£1,658,298 16 7	£72,314 13 0	£1,730,613 9 7
<i>Less—</i>			
Net Revenue during Construction	15,481 15 7	93 6 8	15,575 2 3
Provision made prior to Financial Adjustments Act, 1930, for repayment of Advances, appropriated in reduction of Capital Expenditure	17,982 13 0	—	17,982 13 0
	£1,624,834 8 0	£72,221 6 4	£1,697,055 14 4
DURBAN UNDERTAKING:			
Land and Rights	£29,689 3 0	—	£29,689 3 0
Buildings and Civil Works	343,270 12 5	£5,821 14 8	349,092 7 1
Machinery and Plant	584,893 17 11	25,987 19 7	610,881 17 6
Miscellaneous Equipment	6,882 7 0	Cr. 173 2 1	6,709 4 11
	£964,736 0 4	£31,636 12 2	£996,372 12 6
<i>Less—</i> Net Revenue during Construction	15,121 15 4	—	15,121 15 4
	£949,614 5 0	£31,636 12 2	£981,250 17 2
SABIE UNDERTAKING:			
Land and Rights	£510 0 0	—	£510 0 0
Buildings and Civil Works	65,823 12 0	Cr. £523 3 8	65,300 8 4
Machinery and Plant	37,481 10 9	—	37,481 10 9
Miscellaneous Equipment	2,477 15 10	314 19 7	2,792 15 5
	£106,292 18 7	£208 4 1	£106,084 14 6
<i>Less—</i> Net Revenue during Construction	9,124 15 10	—	9,124 15 10
	£97,168 2 9	£208 4 1	£96,959 18 8
HEAD OFFICE:			
Furniture and Office Equipment	£7,445 11 5	Cr. £242 5 10	£7,203 5 7
SUMMARY:			
Land and Rights	£79,274 11 0	£245 12 3	£79,520 3 3
Buildings and Civil Works	2,384,247 15 6	25,321 12 7	2,409,569 8 1
Machinery and Plant	5,706,390 3 10	77,491 8 3	5,783,881 12 1
Miscellaneous Equipment	125,669 14 7	13,026 1 3	138,695 15 10
	£8,295,582 4 11	£116,084 14 4	£8,411,666 19 3
<i>Less—</i>			
Net Revenue during Construction	145,387 12 2	93 6 8	145,480 18 10
Provision made prior to Financial Adjustments Act, 1930, for repayment of Advances, appropriated in reduction of Capital Expenditure	218,750 12 10	—	218,750 12 10
	£7,931,443 19 11	£115,991 7 8	£8,047,435 7 7

Electricity Supply Commission.

STATEMENT SHOWING DETAILS OF INVESTMENTS ON BEHALF OF THE REDEMPTION FUND IN RESPECT OF THE £3,000,000 TREASURY LOAN (LOAN No. 1) AS AT 31st DECEMBER, 1932.

£78,710 Union of South Africa 5% (10 year) Loan 1935	£78,611 12 3
£186,000 Union of South Africa 4½% Local Registered Stock, 1953	175,020 0 0
£40,000 South African Iron and Steel Industrial Corporation, Limited, 5% Guaranteed First Mortgage Registered Debentures, 1946/71	39,900 0 0
Interest Accrued	3,870 18 6
	<hr/>
	£297,402 10 9
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A. E. HARTE, C.A. (S.A.), Chief Accountant.

Johannesburg,
21st March, 1933.

Electricity Supply Commission.

Account No. 1.

Dr. Redemption Fund Account for the Year ended 31st December, 1932 Cr.
in respect of £3,000,000 Treasury Loan (Loan No. 1) redeemable not later than the 31st December, 1954.

To	Balance as per Balance Sheet	...	...	...	£354,001 16 7
	Witbank Undertaking	...	...	...	£270,546 10 10
	Durban Undertaking	...	...	...	65,150 8 8
	Sabie Undertaking	...	...	...	17,961 5 4
	Head Office	...	...	...	343 11 9

£354,001 16 7

By	Balance at 31st December, 1931, brought forward	...	...	...	£267,132 17 9
	Witbank Undertaking	...	...	...	£211,257 6 9
	Durban Undertaking	...	...	...	41,765 15 11
	Sabie Undertaking	...	...	...	13,988 0 1
	Head Office	...	...	...	171 15 0
	„ Amounts Contributed during the Year out of Revenue				72,948 11 5
	Witbank Undertaking	...	...	...	48,455 9 7
	Durban Undertaking	...	...	...	21,027 9 3
	Sabie Undertaking	...	...	...	3,305 10 9
	Head Office	...	...	...	160 1 10
	„ Interest Earned on Investments				13,920 7 5
	Witbank Undertaking	...	...	...	10,833 14 6
	Durban Undertaking	...	...	...	2,357 3 6
	Sabie Undertaking	...	...	...	717 14 6
	Head Office	...	...	...	11 14 11

£354,001 16 7

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

Johannesburg,
21st March, 1933.

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, as amended by Section 3 of the Financial Adjustments Act, 1930.

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

Electricity Supply Commission.

Account No. 2.

Dr.

Reserve Fund Account for the Year ended 31st December, 1932.

Cr.

To Expenditure during the Year on Replacements and Betterment	£10,237 7 9
Natal Central Undertaking	£765 16 7
Witbank Undertaking	5,219 1 8
Capetown Undertaking	3,792 13 7
Durban Undertaking	364 10 1
Sabie Undertaking	95 5 10
„ Balance as per Balance Sheet	465,408 1 1
Natal Central Undertaking	218,609 16 4
Witbank Undertaking	114,663 1 5
Capetown Undertaking	86,090 11 10
Durban Undertaking	40,116 9 0
Sabie Undertaking	5,928 2 6
	£475,645 8 10

By Balance at 31st December, 1931, brought forward	£344,267 15 8
Natal Central Undertaking	£162,961 0 4
Witbank Undertaking	93,076 15 11
Capetown Undertaking	64,156 11 8
Durban Undertaking	19,302 1 1
Sabie Undertaking	4,771 6 8
„ Amounts set aside during the Year as per Revenue Accounts	112,930 12 4
Natal Central Undertaking	47,676 16 8
Witbank Undertaking	22,000 0 0
Capetown Undertaking	22,253 15 8
Durban Undertaking	20,000 0 0
Sabie Undertaking	1,000 0 0
„ Interest Earned on Investments	18,447 0 10
	£475,645 8 10

Johannesburg,
21st March, 1933.

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

Electricity Supply Commission.

NATAL CENTRAL UNDERTAKING.

Dr. Revenue Account for the Year ended 31st December, 1932. Cr.

Generation of Electricity.				
To Operation—				
Fuel	£42,138	18	2	
Water, Oil, Waste and Stores	951	4	7	
Salaries and Wages	15,463	11	5	
Other Expenses	244	2	7	
„ Maintenance—				
Stores	3,149	0	7	
Salaries and Wages	9,628	16	0	
Other Expenses	1,136	7	3	
„ Electricity Purchased				£72,712 0 7
				5 3 2
Distribution of Electricity.				
„ Operation and Maintenance—				
Stores	2,907	8	7	
Salaries and Wages	15,808	0	1	
Other Expenses	3,386	19	7	
				22,102 8 3
General Expenses.				
„ Local Administration and Technical Management ...	5,738	2	10	
„ General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	9,053	12	10	
„ Head Office Administration and General Expenses ...	6,142	18	7	
„ Engineering Expenses	2,953	9	0	
				23,888 3 3
				118,707 15 3
„ Interest				165,931 1 10
„ Amount set aside to Reserve Fund				47,676 16 8
„ Balance as per Balance Sheet				734 9 2
				£333,050 2 11
				£333,050 2 11

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

Referred to in our Report of 29th May, 1933.

Johannesburg,
21st March, 1933.

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

Electricity Supply Commission.

Account No. 4.

WITBANK UNDERTAKING.

Dr.

Revenue Account for the Year ended 31st December, 1932.

Cr.

Generation of Electricity.

To Operation—						
Fuel	...	...	...	...	...	£67,757 15 9
Water, Oil, Waste and Stores	...	...	...	...	...	5,590 13 7
Salaries and Wages	...	...	...	...	...	22,331 15 4
Other Expenses	...	...	...	...	...	589 18 3
,, Maintenance—						
Stores	...	...	...	...	...	9,028 0 3
Salaries and Wages	...	...	...	...	...	12,398 9 5
Other Expenses	...	...	...	...	...	4,816 6 3
						£122,512 18 10

Distribution of Electricity.

,, Operation and Maintenance—						
Stores	...	...	...	...	...	1,008 4 8
Salaries and Wages	...	...	...	...	...	3,006 3 4
Other Expenses	...	...	...	...	...	367 7 6
						4,381 15 6

General Expenses.

,, Local Administration and Technical Management							7,230 2 5
,, General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)							4,412 15 2
,, Administration, Engineering and General Expenses of Operating Party (The Victoria Falls and Transvaal Power Company, Limited)							6,666 13 0
,, Head Office Administration and General Expenses							2,777 18 11
,, Engineering Expenses							1,513 5 2
						22,600 14 8	
						149,495 9 0	
,, Interest						101,441 14 1	
,, Redemption Fund						48,455 9 7	
,, Amount set aside to Reserve Fund						22,000 0 0	
						£321,392 12 8	

To Balance brought down	...	...	...	...	...	£1,284 17 11
,, Balance as per Balance Sheet	...	...	...	...	...	6,921 4 7
						£8,206 2 6

By Sales of Electricity—

Bulk Supplies	...	...	...	...	...	£268,443 9 2
Industrial and Mining Supplies	...	...	...	...	...	43,661 4 2
Domestic and Lighting Supplies	...	...	...	...	...	3,858 12 11
						£315,963 6 3
,, Other Revenue						4,144 8 6
,, Balance carried down						1,284 17 11

By Balance at 31st December, 1931, brought forward	...	...	...	...	...	£8,206 2 6
						£8,206 2 6

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

Referred to in our Report of 29th May, 1933.

Johannesburg,
21st March, 1933.

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

Electricity Supply Commission.

Account No. 5.

CAPETOWN UNDERTAKING.

Dr.

Revenue Account for the Year

ended 31st December, 1932.

Cr.

Generation of Electricity.

To Operation—			
Fuel	£68,980 16 6		
Water, Oil, Waste and Stores	1,263 18 8		
Salaries and Wages	9,353 16 3		
Other Expenses	163 6 4		
,, Maintenance—			
Stores	3,343 0 5		
Salaries and Wages	7,155 16 5		
Other Expenses	251 15 7		
	£90,512 10 2		

Distribution of Electricity.

,, Operation and Maintenance—			
Stores	929 16 8		
Salaries and Wages	10,601 7 4		
Other Expenses	1,363 2 4		
	12,894 6 4		

General Expenses.

,, Local Administration and Technical Management ...	5,926 6 8		
,, General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)	7,721 4 9		
,, Head Office Administration and General Expenses ...	5,768 12 3		
,, Engineering Expenses	2,584 5 4		
	22,000 9 0		
	125,407 5 6		
,, Interest	83,718 4 8		
,, Amount set aside to Reserve Fund	22,253 15 8		
	£231,374 5 10		

To Balance at 31st December, 1931, brought forward ...	£2,794 16 10		
,, Balance brought down	1,130 9 5		
	£3,925 6 3		

By Sales of Electricity—

Traction Supplies	£126,461 15 0		
Bulk Supplies	33,226 10 10		
Industrial Supplies	53,848 2 2		
Domestic and Lighting Supplies	13,397 19 7		
	226,934 7 7		
Less—Proportion applied against Capital Cost of part of Undertaking not in commercial operation ...	93 6 8		
	£226,841 0 11		
,, Amount recovered from the South African Railways and Harbours Administration, being interest on Capital rendered idle consequent upon the closing of the Sea Point Line		2,609 7 2	
,, Other Revenue		793 8 4	
,, Balance carried down		1,130 9 5	

By Balance as per Balance Sheet	£3,925 6 3		
	£3,925 6 3		

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

Referred to in our Report of 29th May, 1933.

Johannesburg,
21st March, 1933.

ALEX. AIKEN & CARTER,
B. HALSEY,

Auditors.

Electricity Supply Commission.

DURBAN UNDERTAKING.

Revenue Account for the Year ended 31st December, 1932.

Dr.

Cr.

Generation of Electricity.

To Operation—						
Fuel	...	...	...	...	...	£63,076 0 11
Water, Oil, Waste and Stores	...	...	...	...	...	999 7 11
Salaries and Wages	...	...	...	...	...	11,999 6 6
Other Expenses	...	...	...	...	...	305 12 7
,, Maintenance—						
Stores	...	...	...	...	...	3,448 14 0
Salaries and Wages	...	...	...	...	...	8,269 2 2
Other Expenses	...	...	...	...	...	452 11 4
						£88,550 15 5

General Expenses.

,, Local Administration and Technical Management						3,493 7 7
,, General Expenses (including Maintenance of Quarters, Stores Expenses, Rates, Insurance, Pension Fund Contributions, etc.)						2,876 8 3
,, Head Office Administration and General Expenses						5,555 1 2
,, Engineering Expenses						3,453 14 2
						15,378 11 2
						108,929 6 7
						46,553 12 3
,, Interest						
,, Redemption Fund						21,027 9 3
,, Provision for Redemption (Loan No. 3)						1,720 16 3
						22,748 5 6
,, Amount set aside to Reserve Fund						20,000 0 0
,, Balance carried down						5,125 0 4
						£198,356 4 8

To Balance as per Balance Sheet	...	...	...	...	...	£7,375 12 4
						£7,375 12 4

By Sales of Electricity—

Bulk Supplies	...	...	...	...	...	£198,055 16 8
,, Other Revenue	...	...	...	...	...	300 8 0

£198,356 4 8

By Balance at 31st December, 1931, brought forward	...	...	...	...	...	£2,250 12 0
,, Balance brought down	...	...	...	...	...	5,125 0 4
						£7,375 12 4

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

Referred to in our Report of 29th May, 1933.

Johannesburg,
21st March, 1933.

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

Electricity Supply Commission.

Account No. 7.

SABIE UNDERTAKING.

Dr. Revenue Account for the Year ended 31st December, 1932 .

Cr.

Generation of Electricity.

To Operation—				
Water, Oil, Waste and Stores	...	...	...	£39 19 9
Salaries and Wages	...	...	...	1,876 11 0
,, Maintenance—				
Stores	...	...	...	449 8 9
Salaries and Wages	...	...	...	47 14 0
				£2,413 13 6

Distribution of Electricity.

,, Operation and Maintenance—				
Stores	...	...	...	37 6 3
Salaries and Wages	...	...	...	404 13 0
Other Expenses	...	...	...	43 1 10
				485 1 1

General Expenses.

,, Local Administration				128 19 6
,, General Expenses (including Maintenance of Quarters, Insurance, Pension Fund Contributions, etc.)				198 15 0
,, Head Office Administration and General Expenses				682 17 3
,, Engineering Expenses				307 13 0
				1,318 4 9
				4,216 19 4
,, Interest				4,922 6 11
,, Redemption Fund				3,305 10 9
,, Amount set aside to Reserve Fund				1,000 0 0
				£13,444 17 0

By Sales of Electricity—				
Mining Supplies	...	...	...	£13,414 6 9
,, Other Revenue	...	...	...	8 0 0
,, Balance carried down	...	...	...	22 10 3

To Balance brought down				£22 10 3
,, Balance as per Balance Sheet				11 11 4
				£34 1 7

By Balance at 31st December, 1931, brought forward				£34 1 7
				£34 1 7

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

Referred to in our Report of 29th May, 1933.

Johannesburg,
21st March, 1933.

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

ANNEXURE “B”: TARIFFS.

EMBODYING—

The standard prices in force in respect of the Commission's several Undertakings.

ANNEXURE " B ": TARIFFS.

The standard prices in force on the Commission's several Undertakings are subjoined. These prices and the conditions attaching thereto are more fully set out in the Licences and Permit granted to the Commission by the Electricity Control Board, and are subject to alteration in terms of the Electricity Act, 1922.

NATAL CENTRAL UNDERTAKING.

- (a) A charge of £25 per annum, plus
- (b) a charge of 8s. 4d. for each kilovolt ampere of the maximum demand supplied in each month, plus
- (c) a charge of 0·3d. per unit for the first million units supplied in each year,
a charge of 0·2d. per unit for the next two million units supplied in each year,
a charge of 0·15d. per unit for all additional units supplied in each year.

WITBANK UNDERTAKING.

- (a) A charge of £25 per annum, plus
- (b) a charge of 8s. 4d. for each kilovolt ampere of the maximum demand supplied in each month, plus
- (c) a charge of 0·045d. for each unit supplied.

CAPETOWN UNDERTAKING.

- (a) (i) A charge of 13s. 7d. per month for each of the first 250 kilovolt amperes of the maximum demand supplied in each month;
(ii) a charge of 12s. 3d. per month for each of the next 250 kilovolt amperes of the maximum demand supplied in each month;
(iii) a charge of 8s. 4d. per month for each additional kilovolt ampere of the maximum demand supplied in each month;
plus
- (b) (i) a charge of 0·5d. per unit for the first 100,000 units supplied in each month;
(ii) a charge of 0·4d. per unit for the next 200,000 units supplied in each month;
(iii) a charge of 0·3d. per unit for all additional units supplied in each month.

DURBAN UNDERTAKING.

- (a) A charge of £4 4s. for each kilowatt of the maximum demand supplied in each year, plus
- (b) a charge of 0·175d. for each unit supplied.

SABIE UNDERTAKING.

By arrangement with the consumers, the total production costs of this Undertaking are apportioned between consumers in proportion to the number of units supplied to each consumer month by month, the average cost during 1932 being ·530d. per unit.

ANNEXURE "C."

EMBODYING—

Statement No.

1. Summary of principal plant and equipment installed as at 31st December, 1932.
2. Summary of principal plant and equipment in course of installation or on order at 31st December, 1932.
3. Statement showing the price or rent of any land or rights or interest in or over land or any other property acquired or hired by the Commission.

Electricity Supply Commission.

STATEMENT No. 1.

Summary of principal plant and equipment installed at the Commission's several Undertakings as at 31st December, 1932:—

GENERATING PLANT.

No. of Sets.	Capacity each, Kilowatts.	Total Capacity, Kilowatts.
5	20,000	100,000
8	12,000	96,000
3	10,000	30,000
2	6,000	12,000
1	1,000	1,000 (House Turbine)
3	450	1,350
1	300	300 (House Turbine)
Total 23		240,650

BOILER PLANT.

No. of Boilers.	Capacity in lbs. of steam per hour (normal rating).	
	Each.	Total.
2	100,000	200,000
16	70,000	1,120,000
20	60,000	1,200,000
Total 38		2,520,000

TRANSMISSION LINES AND CABLES.

	88,000 volts. Route Miles.	33,000 volts. Route Miles.	21,000 volts. Route Miles.	12,000 volts. Route Miles.	2,200 volts. Route Miles.	380/220 volts. Route Miles.	Total Route Miles.
Overhead Lines .	275	220	74	—	51	75	695
Cables	—	30	10	8	7	2	57
Total	275	250	84	8	58	77	752

TRANSFORMERS.
(Step-up and Step-down.)

Total capacity installed	Kilovolt Amperes. 385,770
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CONVERTING SUB-STATIONS.

Type.			No. of Sub-stations.	No. of Sets.	Rating Kilowatts.
Motor Generators	...	...	14	{ 23 1	46,000 150
Rotary Converters	...	...	5	10	20,000
Total	...	...	19	34	66,150

Note.—Two rotary converters removed from Three Anchor Bay Sub-station, following the closing down of the Sea Point Line, are not included in the above figures.

STAFF QUARTERS.

			Brick Buildings.	Wood and Iron Buildings.	Total.
Married Staff Quarters	...	...	81	15	96
Single Staff Quarters	...	...	9	1	10
Total	...	...	90	16	106

Electricity Supply Commission.

STATEMENT No. 2.

Summary of principal plant and equipment in course of installation or on order as at 31st December, 1932:—

GENERATING PLANT.

No. of Sets.	Capacity each, Kilowatts.	Total Capacity, Kilowatts.
2	20,000	40,000

BOILER PLANT.

No. of Boilers.	Capacity in lbs. of steam per hour (normal rating).	
	Each.	Total.
4	100,000	400,000

TRANSMISSION LINE AND CABLES.

	6,600 volts.		380/220 volts.	
	Route Miles.	Route Miles.	Route Miles.	Route Miles.
Overhead Lines	8	7

TRANSFORMERS (Step-up and Step-down).

Total capacity in course of installation or on order	...	Kilovolt Amperes. 493
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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 1932.

(See previous Annual Reports for Rights or Interests in or over Land acquired prior to 1932.)

Area.			Farm or Lot.	District.	Title.	Purchase Price or Rental.	Acquired From.	Purpose for Which Required.
Acres.	Roods.	Perches.						
<u>NATAL CENTRAL UNDERTAKING.</u>								
			Roseneu	Klip River	Servitude of Right-of-Way in Perpetuity	£10 10 0	H. F. W. Schroder	Power Conductors.
			Ebenezer	Klip River	Servitude of Right-of-Way in Perpetuity	16 15 0	Hanoverian Free Church Mission	Power Conductors.
			Camperdown	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	Vanderplank Family Trust	Power Conductors.
			Subdivision 14 Kopy Aleen	Klip River	Servitude of Right-of-Way in Perpetuity	7 5 0	E. Mavuga	Power Conductors.
			Napier Napier A	Pietermaritzburg	Servitude of Right-of-Way in Perpetuity	—	Pietermaritzburg Corporation	Power Conductors.
<u>CAPETOWN UNDERTAKING.</u>								
Morgen.	Sq. Roods.	Sq. Feet.	Lots 1, 2 and 5 Turff Hall Estate	Claremont	Servitude of Right-of-Way in Perpetuity	10 0 0	H. W. Bokelmann	Power Conductors.
			Lot Van Paerelse Pont	Wellington	Servitude of Right-of-Way in Perpetuity	15 0 0	A. J. Louw	Power Conductors.
9	52		Lot ESC Vlotten- berg	Stellenbosch	Freehold	—	J. W. H. Roux	Substation Site.