

SIXTEENTH ANNUAL REPORT  
AND  
STATEMENT OF ACCOUNTS

For the Year Ended  
December 31, 1976

GUYANA ELECTRICITY CORPORATION

1976 ANNUAL REPORT  
GUYANA ELECTRICITY CORPORATION  
(Incorporated under the Electricity Ordinance, 1957 No. 34)

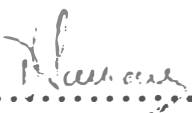
OFFICE OF THE CHAIRMAN

45-47, Water Street,  
Georgetown,  
6th September, 1978.

Dear Comrade President,

In accordance with Chapter 56:01 Section 34(1), I have the honour to submit to you the Report on the operations of the Guyana Electricity Corporation for the year ended December 31, 1976, together with the Balance Sheet and Profit and Loss account, as certified by the Auditors appointed in accordance with Chapter 56:01 Section 33(1) of the Laws of Guyana.

Yours cooperatively,

  
.....  
D.I. YanKana

Comrade L.F.S. Burnham, O.E., S.C.,  
President,  
Guyana State Corporation,  
Public Buildings,  
Avenue of the Republic,  
GEORGETOWN.

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HIGHLIGHTS   1976  
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		1976	1975	Increase / (Decrease)
FIXED ASSETS	(G\$)	116,175,154	91,468,233	27.01
Operating Revenue	(G\$)	37,301,699	31,789,969	17.34
Fuel Costs	(G\$)	17,624,135	14,856,211	13.63
Total Sales	(KWH)	175,790,404	165,289,560	6.35
Number of Customers		60,299	77,838	3.16
Persons Employed		1,492	1,278	16.74
Demand on Plant	(KW)	49,152	38,675	27.08
Installed Plant Capacity	(KW)	76,064	58,784	29.40

GUYANA ELECTRICITY CORPORATION

ANNUAL REPORT 1976

GENERAL REVIEW

I

The Annual Report for the year 1976 portrays a picture of a year of progress and problems. Progress in the sense that during the year the Expansion Programme continued, Garden of Eden Generating Station and the Linden Substation were officially opened, the 69KV Line linking Linden and Garden of Eden was commissioned, civil works at Sophia for the 69KV Substation and Communication Tower, Workshop, Stores, System Control building, Frequency Converter building and the Training School were substantially completed.

At Canefield satisfactory progress was made on the Generation building Workshop and Stores, the 69KV Substation foundations and the fuel oil tank foundations.

Our customers, however, suffered some measure of inconvenience and discomfort through load shedding which was prevalent, especially in the latter part of the third quarter of the year. This was caused by insufficient firm capacity to meet the increasing load demands during times of repairs to the large Generating Units at Kingston Power Station and the Sets at Rosehall and No. 53 Corentyne.

Regular meetings of the Corporation were held during the year under review. The first such took place on February 6, 1976.

While the restructuring of the Corporation was agreed with Guystac and steps were taken to implement the changes, the Organisation lost in one form or another six senior Engineers.

The General Manager, Secretary and Project Manager attended Management Courses in the United Kingdom.

The Government Subsidy in respect of Fuel Oil was withdrawn on July 31, 1976 and proposals for the revision of the Tariffs were presented to the Government.

I cont'd.

During 1976, the Corporation entered into major contracts totalling \$579,445.00 with the following Contractors:

M. Khan - building the Onverwagt Substation and alterations to the existing one	- \$300,398.00
GNEC - Installation of Pipe work and Fuel tanks	171,773.00
D.H. Tait - Erecting Training School at Sophia	105,274.00

The Corporation also acquired Transport for a property situated at Lot 257-259 Middle Street, Georgetown.

During 1976 the following Officers paid visits overseas:

Cde. P.A. Payne, General Manager, travelled to Trinidad to negotiate fuel supplies for the Corporation.

Cde. M.R. Rogers, Project Manager, visited the United Kingdom and the U.S.A. on behalf of the Guyana National Service and Sweden in connection with the Hydro Power Project.

Cdes. K. Richards and D. Nurse went to Caracas, Venezuela, in connection with the purchase of submarine cables for the river crossing.

Cdes. C. D'Avilar and B. Garraway attended a recruiting Seminar in Trinidad.

Administration

Early in the year Mr. E.J. Bowyer, an Overseas Development Ministry seconded Engineer, resigned from his attachment to the Guyana Electricity Corporation; Mr. R.P.M. Taylor, an ODM seconded Civil Engineer, was assigned to be responsible for the Construction Management functions at the Sophia Converter Station site, replacing Mr. D. Wood of the Shawinigan Engineering Company Limited.

The Consultants' Contract for Construction Management was terminated on June 30, 1976 following discussions and negotiations by the Corporation which were aimed at ensuring that the Consultants completed all work under the Scope of Services of their existing Agreement. New proposals were prepared for the continuation of Consultancy Services beyond June 1976 as seen fit by the Corporation.

A Commissioning Agreement was subsequently signed between the Consultants and the Corporation, with the Corporation assuming full responsibility for all outstanding construction management from July 1, 1976 and the Planning & Construction organisation necessary to carry out these responsibilities was implemented with a view towards the proposed total restructuring of the Corporation.

Cde. D. Brijmohan assumed responsibility as Resident Engineer for Canefield construction site in place of Mr. B. King of Shenguyco.

GEC's forces therefore became much more involved in all aspects of project management and administration - coordination of designs and commissioning policy with the Consultants, cost control, scheduling and project reporting, procurement, construction management and contracting, inspection and commissioning - and provided much technical expertise found lacking in local contractors. The Corporation also provided consultancy and contracting services for the Guyana Bauxite Company, Guyana National Service, Ministry of Agriculture, Small Industries Corporation and the New Amsterdam Municipality.

Towards the end of the year the Consultants' engineering staff was reduced to two Engineers with office staff provided by the Corporation. The Projects Division staff at that time comprised:

25 Engineers  
12 - Superintendents & Supervisors  
173 - Technicians  
136 Labourers  
36 - Administration & Clerical Staff.

It is to be noted that Messrs. R. Moscote and Aguilar of the IBRD arrived in Guyana for discussions with the GEC's Management and took the opportunity to visit most of the construction sites. Mr. D. Buss, the representative for ODM, also visited Guyana and made similar inspection tours.

#### Design and Procurement

The designs for the major sections of the system have been completed. Only minor items remain to be resolved as dictated by construction and commissioning requirements and modifications to existing installations owned by GEC and others.

Most of the procured items have arrived in the country.

The major procurement items outstanding at the end of 1976 were the 60 Hz small diesel alternators, the associated switchgear and components for the modifications and connection into the GEC network of stations (Onverwagt, Versailles, Kingston, Everton and New Amsterdam) and for the conversion to 60 hZ of the Anna Regina Power Station. Some procurement was also necessary for the completion of the new power station at Wakenaam Island.

#### Linden

The official opening of the Linden Substation, the commissioning of the Linden/Garden of Eden Transmission Line and the Garden of Eden Generating Station took place on May 23, 1976. These functions were carried out by the Vice President of Guystac, Hon. Minister George King. This Substation connects the Guybau power system to



the GEC's power system and has functioned quite well; normal maintenance has been carried since commissioning.

Additional switchgear was installed and commissioned for an electrical supply to the Guybau Mines at East Montgomery to facilitate the operation of the new Guybau Dragline.

All major items of equipment for this Substation have been installed but some outstanding items which arrived late, e.g., power interchange metering, additional pilot cables and PLC and supervisory equipment, will be installed early in 1977.

#### Garden of Eden

During the year the heavy fuel oil, cooling water and fire protection installations were completed and successfully commissioned. The site finishing and final grading work was completed by the Civil Engineering Section of this Division.

Diesel Engines Nos. 2, 3 and 5 were commissioned and ran on light fuel oil while Engine No. 4 was completely erected but failed to meet commissioning acceptance. This engine has now been placed on emergency standby.

During the commissioning of the four engines it was observed that the level of exciter vibration was outside of the acceptable limits and the engines had to be run for some time at a reduced output rating. Modifications carried out by the Manufacturer's representatives allowed the running of the engines at full rated output but failed to provide a consistent and acceptable solution. This matter received the attention of the Consultants' Engineers who achieved consistent results and an acceptable level of performance on Engines Nos. 2, 3 and 4.

All engines will be recommissioned and run on heavy fuel oil early in the new year. A number of outstanding technical matters remained to be resolved between the Manufacturers and the Corporation.

The 69 kV substation was commissioned and energised. All aspects of electrical control and protection had functioned in keeping with the design, and routine maintenance was carried out in accordance with recommendations.

Sophia

The civil works contracts at this site were substantially completed by the end of 1976. These included the construction of foundations for the 69 kV substation and communication tower and the erection of the Workshop and Stores building, the System Control building, the Frequency Converter building and the Training School building. Only minor building finishes, extra work orders, site finishes and roadways remained to be carried out.

The 69 kV substation, 13.8 kV switchgear and Medium Voltage switchgear installations were substantially completed and commissioning checks had commenced.

. Erection of the 3 x 10 Megawatts rotary frequency converters progressed quite rapidly and on schedule to the point where only about 10% of the main erection work remained outstanding at the end of the year. Commissioning checks were also started on the auxiliary equipment associated with the main machines.

The System Control Section was removed from Kingston Power Station and now occupies offices completed in the new Systems Control Centre building.

The main section of the Systems Control Mimic Panel was damaged in Canada during shipment and was returned to the Manufacturer for repair. This had caused considerable delay to this part of the work and the latest schedule indicates that the equipment will arrive during March 1977.

Canefield

The major civil works contracts were substantially completed with minor items remaining to be tidied up. These major works included the Generating Station building, Workshop & Stores building, 69 kV substation foundations, fuel oil tanks foundations and bond tower crossings foundations, anchor blocks and access roads, the main stalling, the cooling water pump house structure.

The mechanical erection of the two 6 megawatt diesel engines and auxiliaries commenced and erection work was about 60% completed at the end of the year. During the contract period several progress delays were recorded primarily due to the late commissioning of the overhead power house crane, the late arrival of certain main engine parts from the Manufacturers' works and the supply of damaged or wrong parts from the Manufacturers.

The unreliability of the construction power supply for this site was overcome by the early commissioning, in October, of the small black start generating unit for this station.

The cooling water and fire protection pipework contracts were awarded to the Guyana National Engineering Corporation late in the year. Two main contracts, i.e., the fuel pipework contract and the surfacing of the site access roadway, were awaiting approval for award.

The electrical construction for the 69 kV substation and the power station (electrical) have proceeded quite well.

#### Onverwagt

The civil contract for the construction of communication and 69 kV substation foundations and roadway was awarded and progressed to the point where all of the foundations have been poured. Progress on site, with regard to back-filling, fencing, roadway, etc., has been generally good.

#### No. 53 Village

All civil works have been completed. The substation installation work was about 60% completed.

#### Wakenaam

Erection of the engines and auxiliaries was carried out as far as available materials facilitated. The distribution network has been installed.

#### Bermine & New Amsterdam

The erection of the Bermine substation was completed and commissioned

ahead of schedule to facilitate its interim power link-up arrangement between Permian and the Municipality of New Amsterdam. Some work was consequently carried out at New Amsterdam substation including the erection of foundations and installation of the transformers. The Corporation was requested to perform consultancy and contracting services for this link-up of the Municipality. The interconnection was completed and was operating satisfactorily.

#### Transmission Lines

The Linden to Garden of Eden 69 Kv transmission line construction comprised of 600 structures and 54 miles in length, was completed at the end of January 1967 and commissioned on February 15, 1976. A number of "trip outs" were experienced during the early energisation of the line and these were attributed primarily to adjacent obstacles being blown against the line; this necessitated extensive widening of the falling clearances in certain areas along the line route, and the application of special chemicals to destroy clusters of fast growing bamboo trees in a few locations. However, this line has functioned quite well since and has remained substantially stable.

Construction work on the Garden of Eden to Sophia 69 kV transmission line commenced in February 1976. Persistent rainfall during the early months of construction made most of the access routes impassable but this problem was overcome by the construction of a number of heavy duty bridges to improve access and the use of punts rented from Diamond Sugar Estates for transporting construction materials into the areas. The line route required extensive clearing and towards the end of the year construction was approximately 80% completed.

Surveying and wayleaves for the other lines continued during the year but the local supply of wallaba poles did not improve in spite of special efforts, and this will have very serious effects on the commencement of construction of the new lines.

#### Interties (13.8 & 11 kV)

The following projects were also carried out during the year:

Timehri to Garden of Eden, E.B.D	May	2
Garden of Eden to New Hope, E.B.D	May	9
Canal No. 2, W.B.D.	May	16
Guysuco's Drainage Station, Craig, E.B.D.	June	19
Guywa's Grove Station, E.B.D.	June	19
Guyana Timbers Ltd., Houston, E.B.D.	June	27
Guywa's Covent Garden Station	July	3
Industrial Site	July	4
Guywa's Eccles Station	July	10
Mocha/Arcadia & New Providence, E.B.D.	August	22
Republic Park, E.B.D.	October	17
Guyhoc Gardens, Roxanne Burnham Gardens, South Ruimveldt Gardens, South Ruimveldt Park, Festival City, North Ruimveldt,	November	14
Esso Bulk Station, E.B.D.	November	21
Tucville and Meadowbrook Gardens (Greater Georgetown)	December	2

These exercises transferred a load of approximately 7.36 MVA from the Kingston/Versailles System to the Garden of Eden Station.

#### Training

The Project Manager attended a 3-month Management Training Course in the United Kingdom and D. Paraboo Protection & Instrumentation Engineer - was granted study leave in September to pursue a course leading to the M.Sc Degree in Electrical Power Systems Engineering at a U.K. University.

The University of Guyana students absorbed in the Corporation and given on-the-job training are now ready to take on responsible positions.

- (a) One circuit of the proposed 3-circuit line between Garden of Eden and Craig was completed in April;
- (b) The line from Craig to Peter's Hall was completed in March.
- (c) Lines from Sophia to Houston were completed in November.
- (d) The line from Sophia to Mon Repos, E.C.D. was approximately 95% completed.
- (e) Construction of three circuit intertie lines between Sophia and Kingston has commenced.
- (f) The 13.8 kV distribution lines from Soesdyke, E.B.D. were extended along the Linden/Soesdyke Highway to supply electricity to the Kuru Kururu Settlement.
- (g) The intertie line from Everton to New Amsterdam was completed in November and energised as part of the interim power interconnection between Bermine and New Amsterdam.

The Construction of some of the above circuits facilitated the frequency standardisation exercises in related areas and the provision of 60 Hz power supplies to the Shrimp Processing Plant at McDoom, E.B.D. and the Bel-lu Clay Brick Factory, W.B.D.

#### Frequency Conversion

Minor procurement and engineering continued throughout the year during which the following areas/installations were successfully converted from 50 Hz to 60Hz:

General Remarks

In spite of many adverse conditions, the Projects Division attained a high level of performance during the year and a substantial volume of work was achieved. This, coupled with the responsibility for the entire Project Management and the successful execution of many contracts by direct labour, was only possible through the dedication, cooperation and keen interest of all employees.

The Consultants

On June 30, 1976, Shawinigan Engineering International Company's Agreement with the Guyana Electricity Corporation was concluded and replaced by a new Agreement with the Consultants' Parent Company, Shawinigan Engineering Company Limited of Montreal, Canada.

From July 1, 1976, the Corporation assumed the responsibilities for the outstanding Project and Construction Management aspects of the Power Systems Extension programme - Stage 1, and the Consultants were retained by the Corporation to manage and coordinate the activities of the Commissioning and Testing of the equipment installed under the Extension Programme.

During 1976, the construction activities continued at all sites, but civil works and external construction activities were retarded as a result of the exceptionally heavy rainfall experienced in the first half of the year. Despite this interference, progress at both the Sophia and Canefield sites continued and by year end, the majority of the civil works and heavy constructional activities were completed.

The Shawinigan staff in Guyana was reduced in 1976 from five to two engineers, with the Consultants' General Manager, Mr. D.S. Fisher returning to Canada in August on completion of his assignment and the Resident Engineer for the Canefield site completing his assignment on June 30th. The Shawinigan staff in Guyana at year end comprised the Commissioning Manager and a Mechanical/Electrical Engineer who have specific responsibilities in the area of testing and commissioning.

GENERATIONReview of Operations

1976 would be remembered largely by many for the inconvenience caused to the Corporation's customers through load shedding. This was due mainly to insufficient firm Capacity to meet the increasing load demand during times of repairs to the large Generating Units at Kingston towards the end of the third quarter and beginning of the last quarter of the year. While No. 53 experienced problems, Bartica, Onverwagt and Anna Regina offered reliable service.

With the commissioning of Garden of Eden Power Station, Substation and Linden Substation, the Department's responsibility increased. Garden of Eden provided backup service for Guybau and after Frequency Conversion of certain areas, their loads were transferred from the 50 Hz Georgetown System to Garden of Eden.

Gross energy production from all generating stations was 226,973,584 KWH, an increase of 8.8% on 1975 but short of projection for 1976. This was due to the late commissioning of the new generating stations. The maximum demand on the entire system showed an increase of 0.27%. There was also an 11 MW demand at Garden of Eden for a period of about five days, when load was exported to Guybau. The Georgetown System was responsible for 90% of the total energy generated throughout the entire System.

During 1976 it was not possible to implement a thorough annual maintenance to any of the three Units at Kingston 'B' Station. This was due to the System's growing load demand and the lateness in procurement of certain equipment after commissioning of the 60 Hz Sets at Garden of Eden, to guarantee reliability.

The No. 3 'B' Boiler suffered badly towards the end of the third quarter and twice outages were caused because of blown tubes. Nos 1 'B' and 2 'B' Units performed relatively better.



The main problems facing the Department were:

- (i) The silting up of the Demerara River in the region of the C.W. Pump Houses;
- (ii) The leakages of the 'B' Station H.P. Bus-main and the damage to the C.W. Butterfly Valve both necessitating a compulsory shutdown of the Station before repairs could be effected;
- (iii) The implementation of major maintenance to Kingston 'B' Station's Boilers and Turbines.

#### Versailles

This Station generated about 7.79% of the entire System's energy. It suffered badly during the year from lack of replacement maintenance parts, especially Injector nozzles and Turbo-charger parts, delivery of which had been delayed. These were however received later in the year and all four Units were available.

#### Ruimveldt

The No. 2 G.M. Unit performed very well, producing 0.37% of the total energy. This was by operation policy rather than unavailability. The No. 2 Unit was given a major overhaul during the latter part of the year and except for slight overheating, was performing well. The No. 1 Unit encountered technical problems in fitting the replacement crankshaft.

#### No. 53 Corentyne

This Station generated 0.31% of the total System's energy. The G.M. Unit was awaiting a replacement crankshaft. Technical difficulties were encountered when fitting the crankshaft to its block, hence it was not until November that it became available. During that time the Caterpillar suffered from a damaged rotor and defective control rectifier, thus generation became critical.

Rosehall

This one Unit generating Station performed very reliably during the year. Maintenance was regular and programmed at approximately six weeks' intervals, during which period outages were necessary. Generated energy was 0.74% of the System's total. Onverwagt

This Station performed reliably and was responsible for 4.32% of the energy generated by the entire System.

Inlet and exhaust valves and injector nozzles perished in a similar way to those at Versailles in that the valves wore excessively and the injector nozzles suffered from cold corrosion. Effective measures taken were valve angle face changes - 30 degrees instead of 45 degrees -  
 and swinging the Injector Nozzles 120 at timed intervals. The peak load reached a new height of 2.5 MW, so with a firm capacity of 3 MW the System held good.

Garden of Eden

As part of the proposed 60 Hz Grid System, this Station was the first to be commissioned and was linked with Guybau by a 69 kV transmission line. It generated 6.64% of the entire System's energy. All four Units had been provisionally commissioned on light fuel oil. First power was achieved through the commissioning of the No. 3 Unit on February 24 and the Nos. 2, 4 and 5 followed on February 25, December 5 and December 22 respectively. The Station's reliability improved after the permanent raw water pumps had been commissioned, thereafter additional 50 Hz load was converted and transferred to Guybau/Garden of Eden Network to relieve the heavily laden 50 Hz Georgetown System.

Initial testing problems included excessive exciter vibration occurring on all the Sets.

Further commissioning to be completed included the Heavy Fuel Oil System, the 69KV transmission to Sophia and the 13.8 KV interties

to Versailles. The Station was officially opened on May 23 by the Honourable Minister of Trade & Consumer Protection, Cde. George King.

Anna Regina

This Station ran almost trouble-free except for a broken Alternator Cooling Fan Blade which damaged the insulation and fractured a 'B' phase coil. The coil was insulated and the Unit again functioning normally. The Station's contribution to the total energy generated was 2.45%.

Bartica

Though this Station contributed only 0.49 per cent of the System's total energy, it nevertheless, with 40.46% rise in peak load, showed the largest maximum demand increase through natural growth in the entire System. The actual value being 0.302 MW which approached the capacity of one of the two Units. With no immediate plans for interconnection of the Station, additional generating capacities must soon be provided to retain a firm capacity. Again, in this Station as in other outlying stations, the bad load factor attributed to a high cost/unit generated.

Wakenaam

This Station remained incomplete in that a number of electrical parts which had been borrowed for temporarily supplementing defective parts for existing stations, had not been readily replaced.

One of the two engines had been for sometime completed while the other awaited replacement parts.

There still existed outstanding civil work with respect to the fuel system and also landscaping to be done.

Sophia

The Frequency Converter Station, System Control and Training School were showing very good signs of nearing completion. Already discussions had been held and plans were afoot to release staff as necessary for training in various categories.

TRANSMISSION AND DISTRIBUTIONExtensions

Despite the present upward trend affecting the cost of transmission and distribution line materials and accessories, significant extensions of the primary and secondary distribution systems were made to many newly developed areas and communities thus providing electricity for potential customers of various tariff groups.

A total of 3,536 additional customers were attracted to the system throughout the year. East Coast Demerara contributed 35.54% of the total number of new connections made on the entire system.

To meet the demand for electrification throughout the franchise areas, the Corporation's transformer capacity was increased to 110,126.75 KVA or plus 9.44%, also 47 miles of primary lines and 41.8 miles of secondary lines were erected.

AreasCorentyne

The major section of the system's expansion was achieved in this region. Work was in progress to link the Rosehall and No. 53 Stations by closing the gap between Joppa and Whim. Up to the end of December approximately 9 miles of tulip conductors between Nurney and Joppa had been tensioned and tied off.

West Berbice and East Coast

Primary extensions in this area totalled three miles while secondary extensions totalled 4.75 miles. The Guyana Rice Board's mill at Belmonte, Mahaicony, and Frederick's Rice Mill at Dundee were supplied with 60 Hz power.

East Coast Demerara

The Bitumen Plant at North Clonbrook was supplied with power and so were the Guywa Drainage Pumps at Victoria and Golden Grove.

West Demerara

A 13.8 KV line from Vriesland to Canal No. 2 was constructed. This covered a distance of six miles. The other major activity was the road diversion from Hague to Lernora and from Plantain Walk to Pouderoyen where in most cases new poles were planted and lines had to be changed over to facilitate the road diversions.

Essequibo Coast

The south feeder from Anna Regina Power Station was extended from Middlesex to Aurora enabling another 109 new services to be established. Surveys have been completed for the Aurora to Supenaam section where it was expected that another 225 new customers would be connected. Approximately 80% of 4 KV lines were converted to 11 KV and Queenstown and Suddie Housing Schemes were provided with power. In addition, power was supplied to Guyana Rice Board Silos at Somerset and Berks and rice mill at Anna Regina. Guywa's pump and the Cassava Factory at Charity were also supplied with power.

Wakenaam

Approximately 95% of the transmission and distribution network had been completed. The line to supply Guyana Rice Board's silo and rice mill had been erected and provision has been made for installation of a 500 KVA transformer.

Bartica

The 4 KV primary line has been extended another 0.9 miles to Carabesce Hill to supply Guywa's pump and to supply power to residents to Carabesce Hill. The 33KV transmission line between Tumatumari and Konawaruk was repaired. A low voltage distribution network was established for Guyana National Service at Konawaruk.

Greater Georgetown and Suburbs

Most of the work done in this area was routine maintenance.

A high voltage spur was erected to feed residents in Guyhoc Gardens.

Maintenance

Several rotten poles, crossarms and defective insulators were changed in all regions of the system within the franchise area. Faulty transformers were replaced and over-sagging line retensioned.

Tree trimming and cutting in all areas prevented hazardous growth. This, with the rigid and effective line maintenance carried out, including Hot Line work, minimised outages, thus improving the reliability of all feeders of the distribution network as a whole.

Sectional disruptions of the system due to fires, lightning, strikes, accidents by vehicles, faulty connections, etc., were all attended on emergency bases, restoring supply with the least possible down time.

Street Lighting

The demand for Mercury Vapour lamps continues to increase and at December 31, 1976, the total number of M.V. lamps in the various areas can be seen from the following statistics:

STATISTICSMaintenance

No. of Trees Trimmed during 1976	5,186
No. of Trees Cut during 1976	541
No. of Bad Poles changed during 1976	371
No. of Poles Planted entire system	1,306
No. of Extensions during 1976	450

Street Lighting

No. of Series Lamps Retired 1976	nil
No. of Series Lamps at end of 1976	224

Installation of New Mercury Vapour Lamps

West Coast Berbice	52
East Coast Demerara	743
East Bank Demerara	480
West Bank Demerara	147
Essequibo	94
Greater Georgetown	3,568
Corentyne	<u>216</u>
Total	5,300

Service Section

## New Customers:

Corentyne	257
West Berbice & Mahaicony	348
East Coast Demerara	1,257
Greater Georgetown & East Bank	483
West Demerara	781
Essequibo Coast	<u>410</u>
Total	<u><u>3,536</u></u>

Increase of 4.6%

Reconnect and Disconnect Section

No. of Reconnect Orders	12,147
No. of Disconnections for Non-payment	9,875
No. of Disconnections - Ordinary	9,683

Meter Section

No. of Meters installed 1976	5,557
Total No. of Metered Services 1976	79,366

Emergency Section

No. of Emergency Calls attended	1,248
No. of Fire Calls attended	46
No. of False Alarm Calls attended	6

Communications Section

No. of Transceivers added to Network during 1976	12
Total No. of Transceivers in Network	93



Transportation Section

No. of New Vehicles added to Fleet 1976	34
Total No. of Vehicles in Service	178

Transformer Capacity

Total Corporation Owned - 110,126.75 KVA	Increase	9.44%
Total Customer Owned 34,214 KVA	Increase	34.99%
Total Entire System - 144,340.75 KVA	Increase	14.59%

PERSONNEL & PUBLIC RELATIONSPersonnel

A Personnel Manager was appointed in October 1976 to head the Personnel Department.

Training

With the assistance of the Canadian International Development Agency, a Training School at Sophia was in the course of construction and is expected to be completed early in 1977. A Chief Training Officer had been appointed as well as two Instructors (one Electrical and one Mechanical), who were engaged in the preparation of Course Programme.

Seminars

Two Seminars were held to discuss with Senior personnel the administrative restructuring of the Organisation which would be put into operation early in 1977.

Two Seminars on matters of Road Safety were arranged for Corporation's staff by the National Road Safety Council.

Four employees were granted study leave with pay to pursue studies at the University of Guyana in Political Science, Modern Languages and the GTD/HTD in Electrical Engineering.

Cde. D. Paraboo, Electrical Engineer, was granted one year's leave to pursue studies at the Imperial College of Science and Technology in the U.K. leading to the Master of Science Degree in Electrical Engineering.

The General Manager - Cde. P.A. Payne, the Project Manager Cde. M.R. Rogers and the Secretary - Cde. J.L. Agard, attended a General Management Course at the Urwick Management Centre in the United Kingdom. The Training by Urwick International, Management Consultants

formed part of the management development capability for the continuous development of supervisory staff at all levels.

#### Industrial Relations

New Collective Agreements were signed during the year for Senior Staff, General Monthly, and Hourly and Daily-paid employees. The three Agreements will expire on December 31, 1977.

#### First Aid Section

During the year, 1,696 cases were treated by the Industrial Nurses, also 135 employees were referred to hospital. There were two deaths as a result of Industrial accidents.

First Aid lectures were given to employees including those stationed at outposts and rural power stations.

Visits were paid to hospitalised employees as well as to pensioners.

#### Absenteeism

A total of 120,064½ man-hours was lost through sickness and unauthorised absence.

Discussions towards the establishment of a medical scheme were in progress.

#### Electra Credit Union

Membership of the Electra Credit Union stood at 343. During the year loans amounted to \$141,911.55 and savings to \$146,255.02.

Staff

At December 31, 1976 there were 1,065 Hourly and Daily-paid employees, 129 on the Private Payroll and 298 on the General Monthly Payroll.

Public Relations

General advertising was carried out in the news media. Wide publicity was given to the Corporation's Development Programme and its contribution to National Development.

The Public Relations Officer, apart from appearing on "Action Line" and Radio Demerara explaining the Corporation's position with regard to the constant blackouts and billing problems, also served on the National Mashramani Committee and the Mashramani Committee of the Public Utilities & Service Group of Guyana State Corporation.

The Section assisted in the arrangements for the ceremonies which marked GEC's contribution to the Tenth Anniversary Celebrations the opening of the Linden Sub-Station and the Garden of Eden Generating Station. The Corporation was proud that its contestant in the Maha Sabha Diwali Contest, Cde. Farida McDougal had placed third.

The Section also organised the Corporation's participation in National Fairs, Festivals and Exhibitions.

ACCOUNTS AND STATISTICS

CAPITAL

- (a) Fixed assets, inclusive of Work-in-Progress, increased by \$24.707 million. Actual cost at 1st January, 1976 of \$91.468 million rose to \$116.175 million by the end of 1976. Accumulated depreciation was \$24.723 million, an increase of \$3.702 million over 1975 (\$21.021 million).
- (b) There was an increase in working capital of \$1.350 million, making a total of net current assets at 31.12.76 of \$9.290 million (\$7.940 million in 1975).
- (c) Equity in the Corporation which is held entirely by the Government of Guyana remained at \$9.901 million and General Reserves \$16.767 million (\$11.740 million in 1975)
- (d) Long and Medium term liabilities now stand at \$74.075 million (1975 \$56.746 million). A loan was obtained through Guyana State Corporation totalling \$4.174 million to supplement the present electrification programme.
- (e) Of the total capital of \$100.734 million employed in the Corporation, 9.83% is financed by the Government Stock, 16.64% by General Reserve and 73.53% by long and medium term loans.

formed part of the management development capability for the continuous development of supervisory staff at all levels.

#### Industrial Relations

New Collective Agreements were signed during the year for Senior Staff, General Monthly, and Hourly and Daily-paid employees. The three Agreements will expire on December 31, 1977.

#### First Aid Section

During the year, 1,696 cases were treated by the Industrial Nurses, also 135 employees were referred to hospital. There were two deaths as a result of Industrial accidents.

First Aid lectures were given to employees including those stationed at outposts and rural power stations.

Visits were paid to hospitalised employees as well as to pensioners.

#### Absenteeism

A total of 120,064½ man-hours was lost through sickness and unauthorised absence.

Discussions towards the establishment of a medical scheme were in progress.

#### Electra Credit Union

Membership of the Electra Credit Union stood at 343. During the year loans amounted to \$141,911.55 and savings to \$146,255.02.

REVENUE AND EXPENDITURE

- (a) Kilowatt hours sales showed an increase of 6.35%, rising from 165.290 million units to 175.790 million units.

Revenue received from sales under all tariffs aggregated \$37.302 million for the year (1975 \$31.790 million) an increase of 17.34% due entirely to a Government subsidy of \$9.031 million provided in lieu of a rate increase.

The upward trend in sales (KWH) could be attributed to the fact that the Government of Guyana provided a subsidy to all consumers totalling \$9.031 million in 1976 instead of allowing tariff increases which would have been necessary because of rising costs.

- (b) Operating expenses including depreciation charges, but before interest, rose from \$25.787 million to \$32.315 million in 1976, an increase of \$6.528 million or 25.32%. Fuel cost was \$17.624 million and that represented 54.54% of total operating expenses. The actual cost of fuel was 18.63% or \$2.768 million more than 1974 (\$14.856 million in 1974)

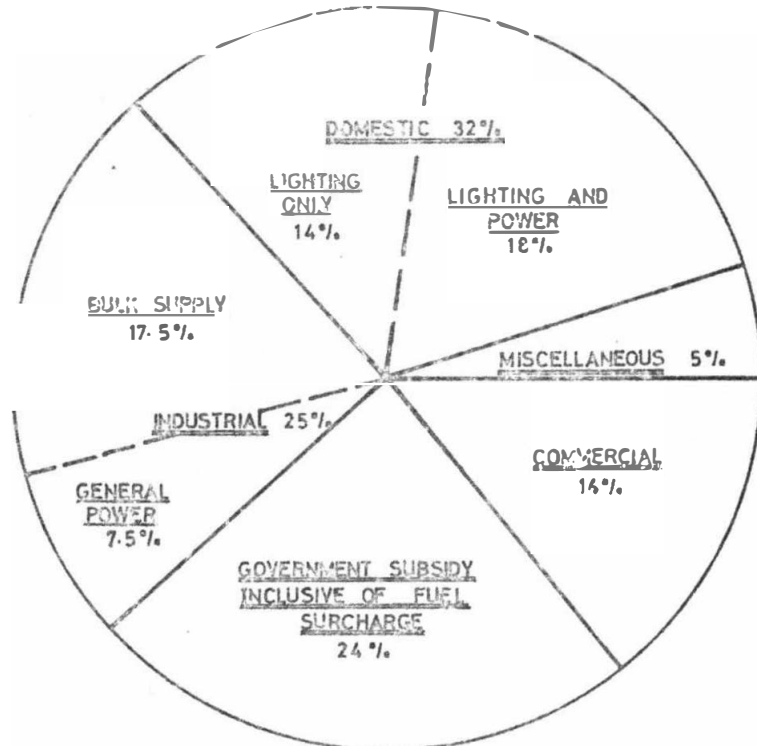
- (c) Interest charges at \$2.216 million are above the 1975 figure of \$1.703 million by .513 million or 30.12%.

- (d) Operating surplus after all charges including depreciation, interest, taxation and extraordinary items amounted to \$5.027 million as compared with \$2.321 million in the previous years.
- (e) The rate of return on investment for 1976 is 12.90%.

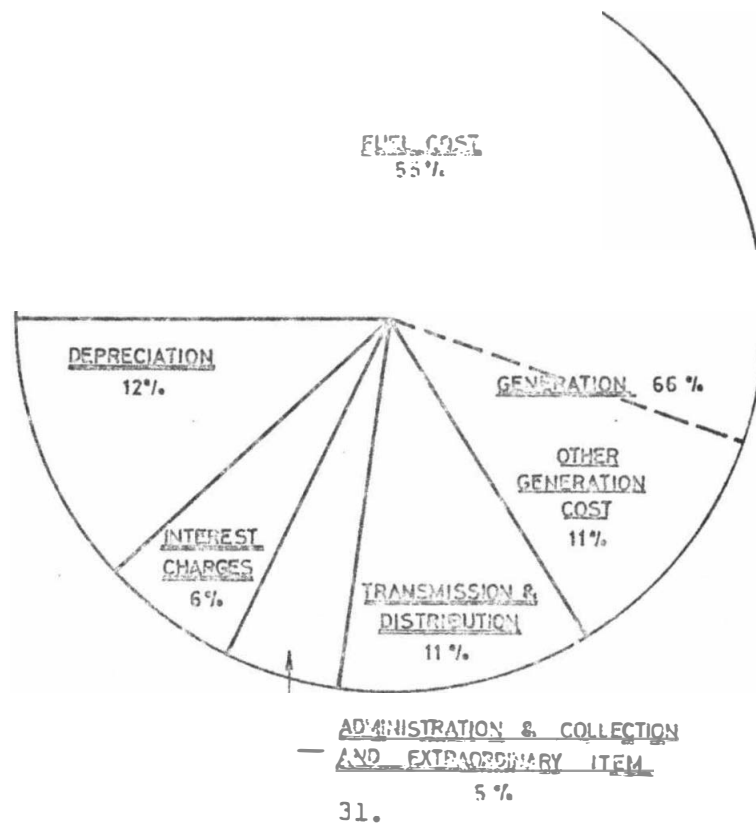
The following diagrams illustrate pictorially a breakdown of the Corporation's Revenue (A), Expenditure (B), Customers and Unit Sales (C) and Installed Capacity and Maximum Demand (D) for the last five years.



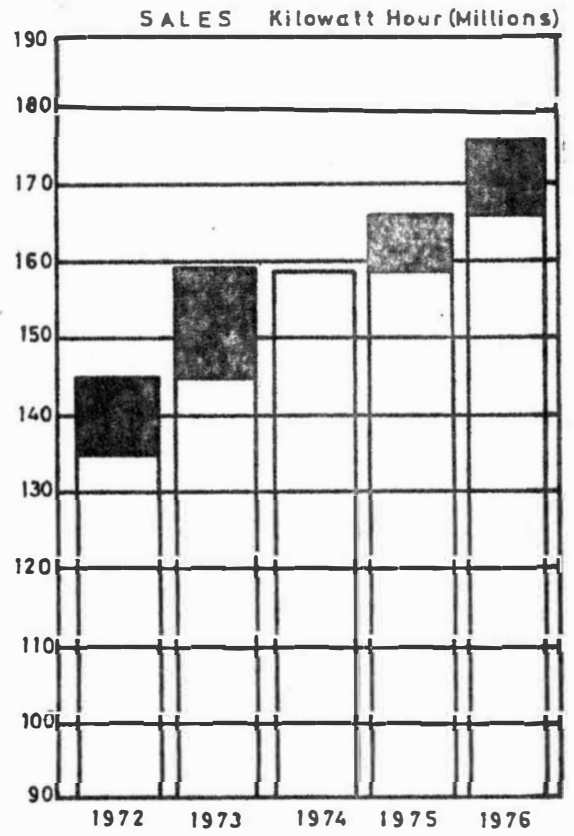
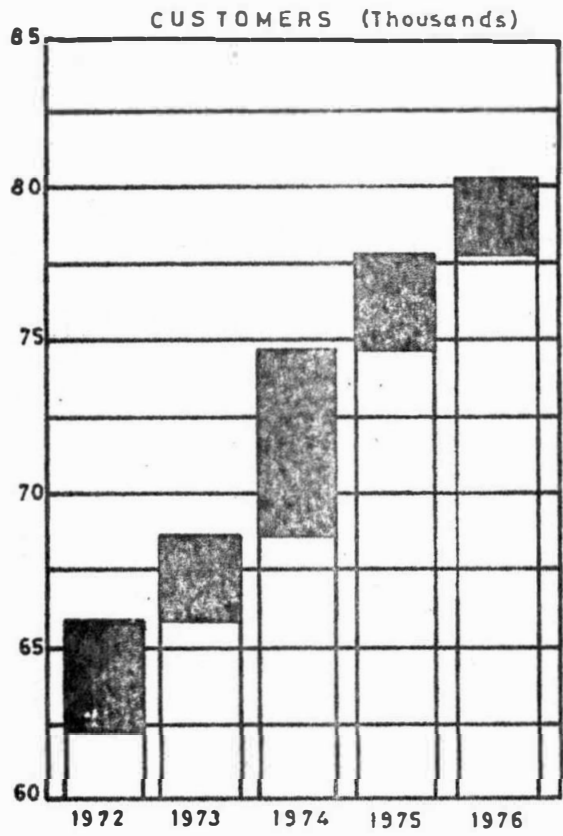
'A' REVENUE - \$ 37, 201, 699



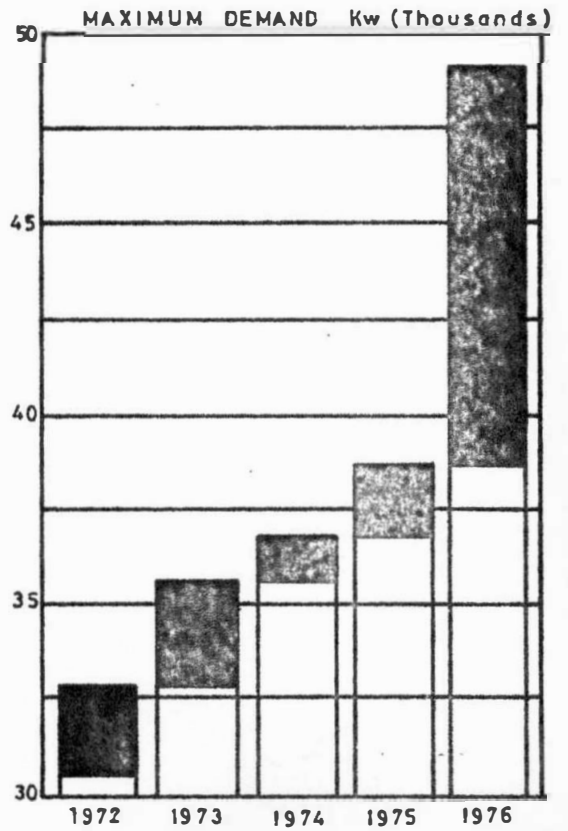
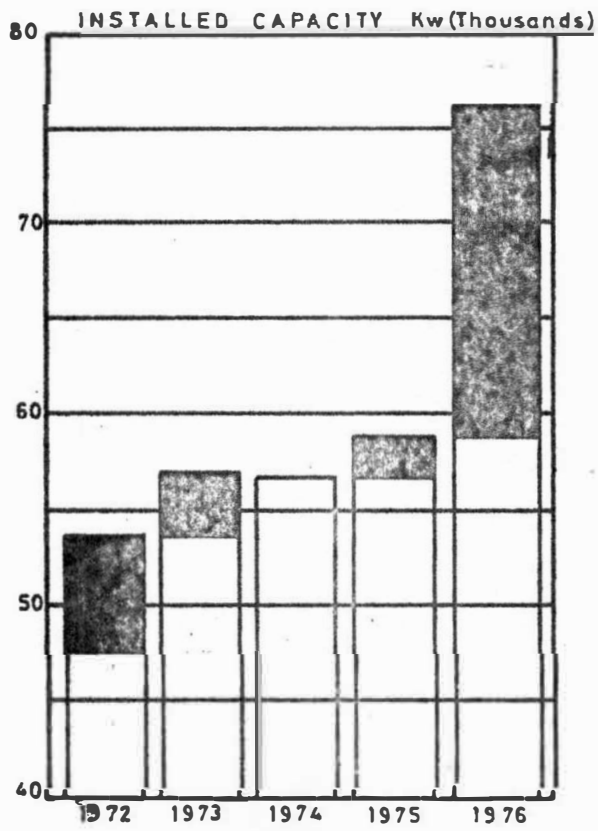
'B' EXPENDITURE - \$ 32, 274, 968



C CUSTOMERS AND UNIT SALES



D INSTALLED CAPACITY AND MAXIMUM DEMAND



OPERATING REVENUE  
& EXPENSES

	\$000	1976	1975
<b>REVENUE</b>			
Straight Line		5,321	4,611
Domestic		6,603	6,141
Commercial		5,371	5,046
General Power		2,195	2,163
Bulk Supply		6,524	5,914
Street Lighting		1,405	1,227
Municipal Pumping Contract		610	626
Miscellaneous		442	365
Government Subsidy		9,031	5,697
<b>Total Revenue</b>		<b>37,302</b>	<b>31,790</b>
<b>OPERATING EXPENSES</b>			
<b>GENERATION</b>			
Superintendence		1,509	1,253
Fuel		17,624	14,856
Maintenance		2,048	1,255
Depreciation		<u>1,803</u>	<u>1,108</u>
		<b>23,084</b>	<b>18,472</b>
<b>DISTRIBUTION</b>			
Superintendence		303	261
Transmission & Services		3,040	2,166
Street Lighting		150	148
Depreciation		<u>1,036</u>	<u>1,422</u>
		<b>4,389</b>	<b>3,997</b>
<b>ADMINISTRATION</b>			
Accounting & Commercial		1,489	1,426
General		1,716	1,473
Security		407	398
Depreciation		<u>30</u>	<u>15</u>
		<b>3,542</b>	<b>3,312</b>
<b>Total Operating Expenses</b>		<b>32,315</b>	<b>25,787</b>

SYSTEM STATISTICS - 1976

		<u>GEORGETOWN SYSTEM</u>				Total	Garden
		<u>Kingston 'A'</u>	<u>Kingston 'B'</u>	<u>Versailles</u>	<u>Ruimveldt</u>	<u>Georgetown</u>	<u>of-Eden</u>
Generated	KWH	17,780,394	156,619,600	17,693,883	847,800	192,941,676	15,086,490
Works Auxiliaries	KWH	2,024,015	9,336,920	764,937	-	12,125,872	794,270
Distribution	KWH	15,756,379	147,282,680	16,928,945	847,800	180,815,804	14,292,220
Maximum Demand	KW	-	-	-	-	33,000	11,000
Load Factor	%	-	-	-	-	66.56	38.19
Heat Rate	BTU/KWH	24,072	15,896	11,811	12,470	15,122	10,313
Fuel Cost per Unit Distributed	¢	11.62	7.24	10.10	9.81	7.92	8.57

34.

		<u>OUT STATIONS</u>				
		<u>Anna Regina</u>	<u>Onverwaagt</u>	<u>Bartica</u>	<u>No. 52 Corentyne</u>	<u>Rose Hall Corentyne</u>
Generated	KWH	5,571,490	9,812,820	1,134,854	724,798	1,701,420
Works Auxiliaries	KWH	291,399	364,600	35,983	6,653	-
Distributed	KWH	5,280,091	9,448,220	1,098,871	718,145	1,701,420
Maximum Demand	KW	1,380	2,540	302	400	530
Load Factor	%	45.97	43.98	42.78	21.78	37.78
Heat Rate	BTU/KWH	11,830	10,882	13,703	19,623	15,198
Fuel Cost per Unit Distributed	¢	10.21	9.24	11.57	16.19	12.43

GUYANA ELECTRICITY CORPORATION

\$000's	1967	1968
GROSS REVENUE	6,232	7,479
OPERATING SURPLUS before Depreciation	2,973	3,146
Depreciation	1,530	1,454
SURPLUS before Interest, Taxation & Extraordinary Item	1,443	1,692
Interest	1,504	816
SURPLUS before Taxation & Extraordinary Item	( 61)	876
Taxation & Extraordinary Item		115
SURPLUS/(Deficit) transferred to/from General Reserve	( 61)	761
CAPITAL EMPLOYED		
Debentures issued to & advances by the Government of Guyana	9,901	9,901
8½% Debentures issued to C.D.C.		1,920
General Reserve	1,013	1,774
Government of Guyana		
Government of Guyana (C.I.D.A.)		
Government of Guyana (O.D.M.)		
A.I.T. (Guyana) Partnership	5,097	1,645
Mortgage Loan (Secured)	23	21
Barclays Bank International Ltd.	4,687	4,800
International Bank for Recon. & Development		
Guyana State Corporation		
TOTAL CAPITAL EMPLOYED	20,721	20,061
EMPLOYMENT OF CAPITAL		
Fixed Assets in Operation less Depreciation	20,269	19,713
Construction Work-in-Progress		
Net Current Assets	452	348
TOTAL NET ASSETS	20,721	20,061
RATE OF RETURN ON INVESTMENT		7.4

APPENDIX III

COMPARATIVE STATISTICAL STATEMENT  
OVER PAST 10 YEARS

1969	1970	1971	1972	1973	1974	1975	1976
8,675	10,646	11,418	12,143	13,378	19,804	31,790	37,302
3,909	5,535	5,432	5,373	3,789	2,568	8,549	8,755
1,526	1,556	1,649	1,875	2,155	2,360	2,544	3,769
2,383	3,979	3,783	3,498		108	6,005	4,986
683	564	488	538	773	1,149	1,703	2,216
1,700	3,415	3,295	2,960	870	1,041)	4,302	2,770
561	1,130	900	506	124	156	1,981	2,257)
1,139	2,285	2,395	2,454	746	1,197)	2,321	5,027
9,901	9,901	9,901	9,901	9,901	9,901	9,901	9,901
1,920	1,920	2,100	1,890	1,680	1,470	1,212	880
2,913	5,198	7,594	10,047	10,616	9,419	11,740	16,767
			490	2,082	2,415	9,891	12,664
				2,101	7,008	10,580	14,235
					4,482	12,079	15,412
21	17	14	85	72	114	100	88
2,800		2,000	1,900	2,000	11,200	11,200	11,200
				2,289	4,628	11,684	15,422
							4,174
17,555	17,036	21,609	23,413	30,741	50,637	78,387	100,743
19,153	18,442	17,721	19,788	21,492	21,913	21,559	41,341
	1,547	4,456	5,531	10,226	26,239	48,888	50,112
( 1,598)	( 2,953	568)	( 1,906)	( 977)	( 2,485)	7,940	9,290
17,555	17,036	21,609	23,413	30,741	50,637	78,387	100,743
8.8	14.1	14.8	14.8	6.8		16.1	12.90

## GENERATING PLANT - 1976

Station	Type & Number	Makers	Year Comm'd	Frequency (Hz)	Installed Capacity (KW)	Engine Running Hours
GEORGETOWN SYSTEM						
KINGSTON 'A'	Steam 4	Fraser & Chalmers	1948	50	3,500	3,150
	" 5	" " "	1954	50	5,000	4,408
KINGSTON 'B'	Steam 1	A.E.I.	1962	50	10,000	8,564
	" 2	"	1963	50	10,000	8,566
	" 3	"	1966	50	10,000	8,424
RUIMVELDT	Diesel 1	Gen. Motors	1960	50	1,000	-
	" 2	" "	1960	50	1,000	1,087
VERSAILLES	Diesel 1	Eng. Electric	1972	50	2,000	4,188
	" 2	" "	1972	50	2,000	2,909
	" 3	" "	1972	50	2,000	2,177
	" 4	" "	1972	50	2,000	4,430
ANNA REGINA	Diesel 1	Eng. Electric	1972	50	1,000	3,630
	" 2	" "	1972	50	1,000	3,177
	" 3	" "	1975	50	2,000	2,238
ONVERWAGT	Diesel 1	Eng. Electric	1973	60	1,000	4,985
	" 2	" "	1973	60	1,000	4,050
	" 3	" "	1973	60	1,000	3,274
	" 4	" "	1973	60	1,000	7,198
BARTICA	Diesel 1	Mirrlees Blackstone	1974	60	392	3,507
	" 2	" "	1974	60	392	5,194
CORENTYNE NO. 53	Diesel 1	Caterpillar	1972	60	250	4,875
	" 2	"	1972	60	250	1,912
	" 3	Gen. Motors	1959	60	500	1,296
ROSEHALL	Diesel 1	Gen. Motors	1959	60	500	8,457
GARDEN-OF-EDEN	Diesel 2	Eng. Electric	1976	60	5,760	1,833
	" 3	" "	1976	60	5,760	2,254
	" 4	" "	1976	60	<u>5,760</u>	49
<u>TOTAL INSTALLED CAPACITY</u>					<u>58,784</u>	

R E P O R T O F T H E A U D I T O R S  
ON THE ACCOUNTS AT 31ST DECEMBER, 1976

GUYANA ELECTRICITY CORPORATION

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We have examined the annexed accounts which are in agreement with the books of the Corporation and have obtained all the information and explanations which we have required.

In our opinion these accounts which have been prepared on the historical cost basis, give on this basis, a true and correct view of the state of affairs of the Corporation at 31st December, 1976 and of the results of its operations and the source and application of its funds for the year then ended.

The accounts for the year ended 31st December, 1975 were audited by another firm of accountants.

THOMAS, STOLL, DIAS & CO.

Accountants

Auditors.



## BALANCE SHEET AS AT 31ST DECEMBER, 1976

	NOTES	1976 \$	1975 \$
<u>CAPITAL EMPLOYED</u>			
CAPITAL			
Redeemable Stock issued to the Government of Guyana	2	9,901,157	9,901,157
General Reserve		<u>16,766,748</u>	<u>11,740,011</u>
		26,667,905	21,641,174
LONG AND MEDIUM TERM LIABILITIES			
8 $\frac{1}{2}$ % Debenture issued to the Commonwealth Development Corporation	3	880,100	1,211,760
Mortgage Loan (secured)		87,592	99,557
Government of Guyana	4	<u>12,663,847</u>	9,891,008
8 3/16% Guyana State Corporation Loan	5	4,174,391	
Government of Guyana - C.I.D.A. Loan	6	14,234,586	10,580,158
Government of Guyana - O.D.M. Loan	6	15,412,032	12,079,470
7 $\frac{1}{2}$ % Debenture issued to the International Bank for Reconstruction and Development	7	15,422,239	11,683,840
Barclays Bank International Limited	8	<u>11,200,000</u>	<u>11,200,000</u>
		<u>74,074,787</u>	<u>56,745,793</u>
		<u>100,742,692</u>	<u>78,386,967</u>
REPRESENTED BY:			
FIXED ASSETS			
Property, plant and equipment	9	14,340,707	21,558,519
Construction work-in-progress		<u>50,111,568</u>	<u>48,888,918</u>
		91,452,275	70,447,437
CURRENT ASSETS			
Inventories		9,526,662	7,904,906
Receivables		7,775,241	6,772,837
Cash on hand and with bankers		<u>480,636</u>	<u>242,925</u>
		<u>17,782,539</u>	<u>14,920,668</u>
LESS CURRENT LIABILITIES			
Long and medium term liabilities payable within one year	10	1,467,955	225,721
Superannuation Scheme		81,623	105,623
Bank overdraft		225,007	123,812
Creditors and accruals		<u>6,717,537</u>	<u>6,525,982</u>
		<u>8,492,122</u>	<u>6,981,138</u>
NET CURRENT ASSETS			
		<u>9,290,417</u>	<u>7,939,530</u>
		<u>100,742,692</u>	<u>78,386,967</u>

Approved on 17th January, 1978.

Cde. D. I. G. Thompson - Director

Cde. M. R. Rogers - Director

STATEMENT OF SURPLUS AND DEFICIT  
AND GENERAL RESERVE FOR THE YEAR  
ENDED 31ST DECEMBER, 1976

	NOTES	<u>1976</u> \$	<u>1975</u> \$
GROSS REVENUE		37,301,699	31,789,969
Unrealised gain/(loss) on exchange	11	2,365,421	(1,901,862)
		39,667,120	29,888,107
OPERATING EXPENSES			
Mechanical	21,181,159		17,364,492
Electrical	3,552,245		2,575,349
General	3,515,132		3,012,443
Rates and taxes	297,226		291,197
Depreciation	3,769,900		2,544,002
		32,315,662	25,787,483
		7,351,458	4,100,624
INTEREST CHARGES			
Debenture - C.D.C. Government of Guyana	108,124		144,601
Guyana State Corporation loan	772,838		344,894
Bank Loan	96,951		
Others	876,885		888,941
		361,270	324,616
		2,216,068	1,703,052
		5,135,390	2,397,572
OTHER CHARGES			
Property tax	103,658		78,927
(Profit)/loss on disposal of fixed assets	5,001		( 2,812)
		<u>108,659</u>	<u>76,116</u>
Surplus before taxation		5,026,731	2,321,457
Income and corporation taxes	12		
Surplus after taxation		5,026,731	2,321,457
General reserve at 1st January		<u>11,740,017</u>	<u>9,418,560</u>
General reserve at 31st December		<u>16,766,748</u>	<u>11,740,017</u>

STATEMENT OF SOURCE AND APPLICATION  
OF FUNDS FOR THE YEAR ENDED 31ST DECEMBER, 1976

	NOTES	1976 \$	1975 \$
<b>SOURCE OF FUNDS</b>			
Surplus for the year before taxation		5,026,731	2,321,457
<b>Add:</b>			
Adjustment for item not involving the movement of funds			
Depreciation		<u>3,769,900</u>	<u>2,544,002</u>
Total generated from operations		8,796,631	4,865,459
<b>Funds from other sources</b>			
Fixed assets disposals	58,052		18,789
Unrefundable contributions	1,157,422		816,304
<b>Loans less repayments:</b>			
Government of Guyana	2,772,839		7,475,619
Guyana State Corporation	4,174,391		
C.I.D.A.	3,654,428		3,571,879
O.D.M.	3,332,562		7,597,738
International Bank for Reconstruction and Development	<u>3,738,399</u>		<u>7,056,201</u>
		<u>18,888,093</u>	<u>26,536,530</u>
<b>APPLICATION OF FUNDS</b>		27,684,724	31,401,989
Additions to fixed assets and construction work-in-progress	25,990,212		25,674,295
Mortgage repayments	11,965		14,234
Commonwealth Development Corporation	331,660		258,720
		26,333,837	25,947,249
		<u>1,350,887</u>	<u>5,454,740</u>
<b>Increase/decrease in working capital:</b>			
Increase in inventories		1,621,756	2,505,678
Increase in accounts receivable		1,002,404	1,766,811
(Increase)/decrease in long and medium term liabilities due within one year		(1,242,234)	3,379
Decrease in Superannuation Scheme		24,000	24,000
(Increase)/decrease in creditors and accruals		191,555)	82,466
<b>Movement in net liquid funds:</b>			
Increase/(decrease) in cash on hand and with bankers	237,711		( 3,161)
(Increase)/decrease in bank overdraft	101,195)		1,075,567
		<u>136,516</u>	<u>1,072,406</u>
		<u>1,350,887</u>	<u>5,454,740</u>

NOTES TO THE ACCOUNTS FOR THE  
YEAR ENDED 31ST DECEMBER, 1976

## 1. Accounting policies

## Depreciation

Depreciation of fixed assets is on a straight line basis calculated on cost at the rates specified below which are estimated to write off the assets over the term of their useful lives viz:

Industrial buildings	3%
Generation Plant	5%
Transmission and distribution	7.5%
Motor vehicles	17.5%
Office equipment	8%
Miscellaneous equipment	5%

Depreciation is not provided on freehold land and ~~construction work-in-progress~~

## Inventories

~~Inventories~~ are valued as follows:

- (a) ~~Stores and other miscellaneous supplies~~ at the lower of cost and net ~~realisable value~~.
- (b) Fuel at cost.

The bases of valuation and methods of computing cost and net ~~realisable value~~ are consistent with those of the preceding year.

## Deferred taxation

Provision is not made for taxation deferred by capital allowances in excess of depreciation.

## Translation of foreign currency transactions

Foreign currency transactions are currently translated to Guyana dollars at the rates of exchange ruling at the dates of such transactions.

At each balance sheet date, all amounts denominated in foreign currencies are translated to Guyana dollars at the exchange rates ruling on that date. See note 11.

NOTES TO THE ACCOUNTS FOR THE  
YEAR ENDED 31ST DECEMBER, 1976

Interest charges

Charges on loans obtained to finance capital projects are capitalised as part of the cost of the projects while they are in course of construction.

General

These accounts have been prepared on an historical cost basis. No attempt has been made to adopt 'replacement cost accounting' or 'current cost accounting' procedures which would overcome the distorting effects of inflation.

2. The Corporation may at any time give notice to the Minister of Finance of its intention to redeem all or any part (having a nominal value of not less than \$100,000) of the redeemable stock for the time being issued and outstanding. Such notice shall be in writing and shall specify the amount of the redeemable stock to be redeemed and the date (not being less than thirty days after the delivery of the notice to the Minister) for the redemption.

No redeemable stock shall be redeemed except out of profits of the Corporation or out of the proceeds of a new issue of stock or debentures or debenture stock made by the Corporation.

3. The loan is for £400,000. It is secured by a debenture giving a first floating charge on all the Corporation's assets and is repayable by ten annual instalments of £40,000 each, the first of which was paid in December, 1973. The fifth instalment of £40,000 (\$176,020) is included in current liabilities.
4. (a) The Government of Guyana has agreed that all income, corporation and property taxes for the years 1970 to 1975 less \$2,000,000 be converted into loans bearing interest at the rate of 8% per annum. (Note 4 (b) below). This \$2,000,000 was paid in 1974.

	<u>1976</u>	<u>1975</u>
	\$	\$
(b) Tax loan to date (Note 4(a) above)		
at 8%	1,365,944	1,365,944
Other loans (note 4 (c))	9,389,773	7,389,773
Interest to date and fees	<u>1,908,130</u>	<u>1,135,291</u>
	<u>12,663,847</u>	<u>9,891,008</u>

NOTES TO THE ACCOUNTS FOR THE  
YEAR ENDED 31ST DECEMBER, 1976

- (c) The Government of Guyana additional loan of \$2,000,000 in 1976 was obtained to supplement the expansion programme. The loan bears interest at the rate of 8% per annum.
- (d) The property tax amounting to \$103,658 is reflected in current liabilities.
5. (a) The Guyana State Corporation's loan of \$4,077,440 in 1976 was obtained to supplement the expansion programme. The loan bears interest at the rate of 8 3/16% per annum. There is a two-year period of moratorium commencing September 17, 1976. Thereafter, the loan is repayable in three annual instalments. (Note 5 (b) below).
- (b) The interest accrued on this loan at 31st December, 1976 amounted to \$96,951.
6. (a) During 1973 and 1974 the Government of Guyana entered into agreement with:
- (i) The Canadian International Development Agency, and
- (ii) The Overseas Development Ministry of United Kingdom to borrow C\$5,150,000 and £4,250,000 respectively for the specific purpose of on-lending to the Corporation. These loans bear interest at the rate of 6.2% per annum and are repayable to the Government of Guyana within a term of:
- (i) 50 years with a grace period of ten years, and
- (ii) 25 years with a grace period of four years respectively.

At 31st December, 1976, C\$5,042,923 was drawn down against the C.I.D.A. Loan and £3,371,397 was drawn down against the O.D.M. Loan.

	1976		1975	
	C.I.D.A. \$	O.D.M. \$	C.I.D.A. \$	O.D.M. \$
Loan advances	12,819,288	14,835,834	9,843,787	11,587,197
Interest to date	1,415,298	1,324,283	736,371	492,273
	14,234,586	16,160,117	10,580,158	12,079,470

NOTES TO THE ACCOUNTS FOR THE  
YEAR ENDED 31ST DECEMBER, 1976

7. This debenture was issued in 1973 for the sum of US\$6,000,000 for a term of 20 years including a four year grace period. It is secured by a floating charge on all the Corporation's assets and ranks pari passu with the other debentures issued by the Corporation. (Note 3). At 31st December, US\$5,778,541 was drawn down and the balance is to be drawn down on or before 30th June, 1977. The Government of Guyana has guaranteed this debenture.

8. Barclays Bank International Limited - \$11,200,000.

Loan No. 2 for \$5.0 million.

\$2.0 million of this loan was drawn in 1973 and the balance of \$3.0 million was drawn in 1974.

Loan No.3 for \$6.2 million.

This loan was agreed and drawn down in 1974.

The above loans are guaranteed by the Government of Guyana. Repayment terms of loans Nos. 2 and 3 include a four-year period of moratorium commencing from 1974. Thereafter, repayments will be \$1,000,000 per annum until the loans are repaid.

9. (a) Fixed assets

	At <u>1.1.76</u>	Additions \$	Disposals \$	At 31.12.76 \$
Cost:				
Property, plant and equipment				
Freehold land	1,130,523	824,363		1,954,886
Buildings	5,121,126	5,715,933		10,837,059
Generation Plant	19,275,073	12,626,762	50	31,898,785
Transmission and Distribution	16,842,456	5,277,922	118,724	22,001,654
Motor vehicles	1,179,046	165,974	6,520	1,338,500
Office equipment	299,366	81,141	575	379,932
Miscellaneous equipment	318,796	75,467		394,263
	44,163,386	<u>24,767,562</u>	125,869	<u>68,805,079</u>

NOTES TO THE ACCOUNTS FOR THE  
YEAR ENDED 31ST DECEMBER, 1976

	At 1.1.76 \$	Charge for Year \$	On Disposals \$	At 31.12.76 \$
9. (a) Depreciation:				
Buildings	1,736,860	315,053		2,051,913
Generation Plant	10,012,163	1,615,803	20	11,627,946
Transmission and Distribution	8,456,692	1,650,125	66,288	10,040,529
Motor vehicles	571,712	128,956	1,141	699,527
Office equipment	134,431	30,394	368	164,457
Miscellaneous equipment	108,938	29,569		138,507
	21,020,796	3,769,900	67,817	24,722,879
 Cost less depreciation	 23,142,590			 44,082,200
Deduct:				
Unrefundable contribution	1,584,071			2,741,493
Net book value	<u>21,558,519</u>			<u>41,340,707</u>

(b)

	At 1.1.76 \$	Additions \$	Completed \$	At 31.12.76 \$
Construction work-in-progress at cost	<u>48,888,918</u>	<u>22,906,402</u>	<u>21,683,752</u>	<u>50,111,568</u>

(c) A portion of land on which Kingston 'B' Power Station is erected has been acquired from the Government of Guyana but the title of this land has not yet been vested in the Corporation. Another portion of such land has been leased from the Mayor and City Council of Georgetown pending negotiations for its acquisition.

(d) Certain fixed assets of the Corporation are sited at Ruimveldt on land belonging to the Government of Guyana. No negotiations have taken place for the acquisition of this land.

(e) A portion of land at Versailles is being occupied by the Corporation pending negotiations with the owner for its acquisition.

The value of these portions of land has not been brought into account and no provision has been made in respect of any liability for the acquisition thereof.



NOTES TO THE ACCOUNTS FOR THE  
YEAR ENDED 31ST DECEMBER, 1976

10. Long and medium term liabilities due within one year.

Commonwealth Development Corporation		
8½% debenture	176,020	200,000
Mortgage loans (secured)	17,850	25,721
International Bank for Reconstruction and Development	526,000	
Overseas Development Ministry	<u>748,085</u>	
	1,467,955	225,721

11. In accordance with the Corporation's accounting policy for the translation of foreign currencies (Note 1), all foreign currency accounts were adjusted to reflect the rate of exchange ruling as at 31st December, 1976. The net effect of these adjustments amounted to G\$2,365,421.

12. (a) Taxation deferred by capital allowances in excess of depreciation amounting to \$5,294,001 (1975 - \$4,061,729) has not been provided for in these accounts.

(b) Losses and deferred initial allowances amounting to \$25,059,019 (1975 - \$17,442,152) are available for future relief against taxation.

13. The revised capital expenditure authorised for the period 1977 to 1978 is estimated to amount to \$32.9 million (1976 - 1977 \$40.8 million) of which approximately \$5.3 million has been contracted for (1976 - 1977 \$16.0 million).  
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14. Contingent liabilities

Letters of credit outstanding	181,767	<u>1,196,667</u>
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