



MALAWI GOVERNMENT

PERFORMANCE AUDIT REPORT

ON

DISTRIBUTION OF ELECTRICITY IN MALAWI BY
ELECTRICITY SUPPLY CORPORATION OF MALAWI
LTD IN THE MINISTRY OF NATURAL RESOURCES,
ENERGY AND MINING



NATIONAL AUDIT OFFICE
P. O. BOX 30045
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MALAWI LTD

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THE MINISTRY OF NATURAL RESOURCES,
ENERGY AND MINING

NATIONAL AUDIT OFFICE

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23rd May, 2018

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The Right Honourable Speaker
National Assembly
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Through: The Honourable Minister of Finance
Ministry of Finance, Economic Planning and Development
P.O. Box 30049
Lilongwe 3
Malawi

Dear Madam,

**PERFORMANCE AUDIT ON DISTRIBUTION OF ELECTRICITY IN
MALAWI BY ELECTRICITY SUPPLY CORPORATION OF
MALAWI LTD**

Pursuant to the provision of Section 184 (2) of the Constitution of the Republic of Malawi (1994) and the Public Audit Act Cap 37:01, I have the honour to submit my report on the results of the Performance Audit on Distribution of Electricity in Malawi by Electricity Supply Corporation Of Malawi Ltd in the Ministry of Natural Resources, Energy and Mining.

A Performance Audit is an audit of Economy, Efficient and Effectiveness with which the audited entity uses its resources to achieve its goals. The prime aim of a performance audit is to ensure better use of resources, improved operations and better decision making in reaching policy objectives set.

Yours faithfully,

Thomas K. B. Maliwa
Acting Auditor General



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Abbreviations and Glossary of Terms

MW	-	Megawatts
SADC	-	Southern Africa Development Corporation
MAREP	-	Malawi Rural Electrification Programme
HMI	-	Human Machine Interface
KVA	-	Kilovolts
MERA	-	Malawi Energy Regulatory Agency
PPDPA	-	Public Procurement and Disposal of Public Assets Act
PPM	-	Procurement Procedures Manual
PD	-	Procurement Department
NCB and ICB	-	National and International Competitive Bid
SCADA	-	Supervisory Control and Data Acquisition
DOD	-	Director of Distribution
RFQ	-	Request for Quotations
ODPP	-	Office of Director of Public Procurement
LPO	-	Local Purchase Order
BoQ	-	Bills of Quantity
GRN	-	Goods Received Note
HV and MV	-	High and Medium Voltage
SPM	-	Systems Performance Monitoring



EXECUTIVE SUMMARY

Electricity Supply Corporation of Malawi LTD, ESCOM was established by an ACT of parliament in 1957 (revised in 1963 and then 1998) as the only electrical power supplier in Malawi. ESCOM is charged with the responsibility of Generation (GX),Transmission (Tx), and Distribution(Dx) of electricity to consumers throughout the country. The Corporation is also responsible for maintenance of the sector assets and planning for system expansion to meet growing demand for electricity in the country which is over 400 mega watts against available generation capacity of 267MW.

The 2016 Electricity Ammendment Act changed the role of ESCOM from being an electricity generation entity to procurement , transmission and distribution of power.

Malawi's population has one of the lowest rates of access to electricity in the SADC region. Currently,only 10 percent of the population has access to electricity. Wood fuel (firewood and charcoal) is the main source of energy for households in the country. Demand for wood fuel has contributed to serious deforestation and environmental degradation. Deforestation, in turn, has resulted in heavy river siltation, creating problems in the generation of hydroelectric power, which accounts for almost 100 percent of the grid supply.

Since 2011, Malawi as a nation has suffered heavy loadshedding which contributed to poor economic performance of the nation, as many industries (both micro and macro)failed to do business and many new investors feared to invest in the country.

A performance audit was carried out due to public outcry concerning low and inconsistent access by consumers to electricity, and the long time taken by ESCOM to provide power to applicants both residential and commercial.

The audit objective was achieved by answering the following major audit questions:

1. To what extent does ESCOM ensure timely connections of applicants to power?
2. To what extent does the procurement unit procure distribution materials and accessories on time and in the ordered quantity and quality?
3. To what extent does ESCOM carry out maintenance of distribution equipment so that they perform efficiently and effectively?



- 4 To what extent does ESCOM rectify reported faults on time?
- 5 To what extent is monitoring and supervision of distribution centers carried out by ESCOM headquarters and regional offices?

The audit focused on the operations of ESCOM for the following five financial years: 2011/12; 2012/13; 2013/14; 2014/2015; and 2015/2016.

Major findings and recommendations

Some of the major findings established during the audit was that there were inefficiencies and delays in the procurement of distribution materials. These inefficiencies emanated from adhoc and haphazard procurement of materials as ESCOM failed to prepare and implement annual procurement plans, awarding contracts for supply of materials to contractors who did not have the capacity to perform the contracts, and failure by ESCOM to impose set penalty measures on non-performing contractors, as well as lack of accountability by user sections over materials procured and drawn.

Interviewed officers disclosed that due to lack of coordination among divisions, ESCOM failed to prepare consolidated annual procurement plans for the financial years 2012/13, 2013/14, and 2014/15. This led to a lot of adhoc procurements which resulted in delay in delivery of materials to connect clients. It was observed that even though the 2011/2012 and 2015/2016 consolidated procurement plans were prepared, they were not implemented. Procurement was done outside the plans, leading to over-expenditure on procurement

A review of sampled bids and contract agreements for distribution materials floated and entered into during the period under review revealed that ESCOM awarded contracts to some contractors who did not have the capacity to perform. For instance, contract numbers ESC897/12-13 and ESC 198/ICB/G/FY23-14 for the supply of various line materials and cables were awarded to Int Procurement Services and HMI respectively. However, the contractors did not have financial capacity to perform the contracts such that they requested for Assignment of Proceeds Arrangement before performing the contract. Despite failure to perform the contracts, ESCOM did not impose any penalty measures, and after a year without delivering the line materials, the contract number ESC897/12-13 was cancelled while ESC 198/ICB/G/FY23-14 was still open as at the time of audit.

The inefficient procurement process contributed to erratic flow of materials to distribution centres, leading to delay in connecting customers by an average of



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352 days. According to customer services charter, ESCOM is supposed to connect customers within 30 days from the date of payment for a service cable connection and a meter and 60 days for a job requiring service cable connection to the premises, not more than 10 poles and a meter, However, an analysis of customers statistics revealed that during the period under review, more than half of sampled customers were connected after 12 months. Delays in connecting customers to power contributed to backlog of customers and loss of revenue.

It was also observed that ESCOM failed to reduce time and frequency of power interruptions and load shedding. An analysis of data on the frequency of power interruptions per installed kVA revealed that on average, power interruptions were 15 times more than the set target (9.4) of power interruptions per installed kVA's. Since 2012, there has been an increase in the frequency of interruptions with the year 2014 recording the highest average frequency. It was also observed that time of interruption per installed kVA increased tremendously between the years 2011 to 2014. The targeted time was 25.8 hours of interruption per installed kVA, but the actual time of interruption during the period under review was 34.91 hours in 2011 and increased to 265 hours by the end of 2014/2015 financial year. Through interviews and documentary reviews, it was noted that although the implementation of approved maintenance programs, reinforcement of the distribution system and rehabilitation of the old distribution networks were done, excessive and prolonged load shedding due to insufficient generation capacity contributed to high average frequency of interruptions per installed kVA's

In order to meet the growing demand for electricity in the country which will assist in industrialization, rural transformation and enhance sustainable economic development, ESCOM should not only establish but also implement effective and efficient strategies to provide timely and reliable electricity to customers. ESCOM is recommended to reduce time taken to connect applicants to electricity. This should be done by addressing the inefficiencies in the procurement department, by ensuring that consolidated annual procurement plan is produced and implemented every year, contracts for the supply of materials are awarded to contractors who have the capacity to perform the contracts, delay and non-performance by contractors is not condoned at all cost, and that accountability of materials procured is done by all user departments in order to avoid wastage of materials



1. INTRODUCTION

1.1 Background of the power sector

Electrical Power subsector is one of the seven subsectors in the Energy sector which is under the Ministry of Natural Resource Energy and Mining. Electricity Supply Corporation of Malawi LTD, (ESCOM) is the only electrical power supplier established by an ACT of parliament in 1957 (revised in 1963 and then 1998).

ESCOM is charged with the responsibility of Generation (GX), Transmission (Tx), and Distribution (Dx) of electricity to consumers throughout the country. The Corporation is also responsible for maintenance of the sector assets and planning for system expansion to meet growing demand for electricity.

Generation was carved out of ESCOM as separate company as from January 2017 as part of the electricity reforms.

Malawi's total installed generation capacity is approximately 361Mega Watts (MW). However, about 267MW is available against an estimated demand for power of over 400 MWAs at June 2016. The demand for electrical power is projected to 1200MW and 1600 MW in 2025 and 2030 respectively.

Malawi's population has one of the lowest rates of access to electricity in the SADC region. Currently, about 10 percent of the population has access to electricity. Wood fuel (firewood and charcoal) is the main source of energy for households in the country. Demand for fuel wood has contributed to serious deforestation and environmental degradation. Deforestation, in turn, has resulted in heavy river siltation, creating problems in the generation of hydroelectric power, which accounts for almost 100 percent of the grid supply.

Since the year 2011, Malawi as a nation has suffered heavy loadshedding which contributed to poor economic performance of the nation, as many industries failed to do business and many new investors feared to invest in the country.

ESCOM has 2500 and 3700¹ permanent staff and temporary workers respectively. Temporary workers are recruited for maximum period of six months.

¹ Interview minutes-senior human resource ESCOM and integrated strategic plan 2013-2017.



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A performance audit was carried out due to public outcry concerning low and inconsistent access by consumers to electricity, and the long time taken by ESCOM to provide power to applicants both residential and commercial.

1.2 Design of the audit

1.2.1 Audit objective

The main objective of the audit was to assess the extent to which the energy sector/ESCOM is providing timely, adequate, affordable and reliable electricity supply which will assist in industrialization, rural transformation, and sustainable economic development and reducing poverty.

1.2.2 Audit questions

The audit objective was achieved by answering the following major audit questions:

1. To what extent does ESCOM ensure timely connections of applicants to power?
2. To what extent does the procurement ESCOM procure distribution materials and accessories on time and in the ordered quantity and quality?
3. To what extent does ESCOM carry out maintenance of distribution equipment so that they perform efficiently and effectively?
4. To what extent does ESCOM rectify reported faults on time?
5. To what extent is monitoring and supervision of distribution centers carried out by ESCOM headquarters and regional offices?

1.2.3 Audit scope

The audit was carried out at ESCOM headquarters as well as the four ESCOM regional offices of Blantyre, Lilongwe, Mzuzu and Zomba. The following districts were visited;



Mwanza in the southern region, Salima and Kasungu in the central region, Karonga and Nkhatabay in the northern region and Mangochi in the eastern region. These centers were selected because they are key distribution centers and have a wider customer base than other districts. The audit team also visited the department of energy affairs which is responsible for monitoring the operations of ESCOM, and MERA head office which is responsible for regulating energy decisions, policies and activities.

The audit covered five financial years: 2011/12; 2012/13; 2013/14; 2014/2015; and 2015/2016 these financial years were selected to enable the team to establish the trend in distribution of electricity.

The Ministry of Natural Resources, Energy and Mining will be responsible to initiate change, based on the recommendations of the audit.

1.3 Criteria for assessing performance

In order to answer the audit questions, the distribution system was assessed using the following criteria, divided into four categories; requirements for connecting new clients, procurement of distribution materials, maintenance of faults and distribution network, and monitoring and supervision of the distribution network.

1.3.1 Connection of new clients

- Customer service charter stipulates that a customer who has made an application at ESCOM customer service centers shall be quoted within 14 days from the date of making an application; and
- According to maintenance and construction guidelines, every district is supposed to have an investigator who shall be responsible to conduct customer investigations at a district level.
- ESCOM customer service charter stipulates that electricity shall be supplied within 30 days from the date of payment for a service cable connection that requires



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an extension of up to and not more than 45 meters and within 90 days for a connection requiring an extension of more than 45 meters to connect to existing powerline from an existing transformer.

1.3.2 Requirements for Procurement of materials

- According to ESCOM PPM, Planning phase for procurement process of materials should be done from 15 December to 30 April of every financial year during which the PD should produce a consolidated annual procurement plan. ESCOM's procurement regulations requires that all distribution materials should be procured based on this plan;
- According to Section 44 of Public Procurement and Disposal of Public Assets (PPDPA) Act successful bidders should be selected based on their financial resources and conditions, professional and technical qualification, legal capacity, past experience and payment of taxes; and
- The procurement process should follow the requirements of PPDPA Act and the cycle should take 4 and 6 months for NCB and ICB respectively.
- Provision of distribution materials by central stores to distribution centers should be done according to annual plans. According to contract agreements, and interview with officers in procurement, ESCOM set aside the following penalty measures in order to avoid non-performance of contractors and enhance timely delivery of materials.
 - Liquidated damages.–penalty effected on delay to supply. i.e. a certain percentage for each week of delay (0.5% of contract price every week);
 - Liquidation of performance security from the bank in the form of bank guarantee or bank certified cheque (10% of contract price or fixed actual amount). This is for contracts to be terminated, where the contractor has completely failed;



- Contract administration-i.e. managing the contract by monitoring, reminding through letters, negotiations etc; and
- Cancellation of the contract.

1.3.3 Requirements for Maintenance of the distribution network and clearance of faults

- According to the ESCOM Integrated Strategic Plan (July 2013–June 2017), strategic objective number 3, ESCOM planned to reduce power interruptions by 80% by 2017. The following activities were supposed to be implemented to achieve the set target:
 - i. Implement approved maintenance programs;
 - ii. Procure a robust maintenance and faults management database system;
 - iii. Reinforce the distribution system;
 - iv. Rehabilitate old distribution network;
 - v. Put distribution system on SCADA system;
 - vi. Introduce incentives for efficient power usage by industries;
 - vii. Implement integrated geyser management system;
 - viii. Increase sensitization on effects of communications; and
 - ix. Lobbying Government to review some legislation.
- According to the ESCOM Integrated Strategic Plan, ESCOM planned to improve response to faults by 30% by 2016. To achieve this, ESCOM was expected to:
 - i. Clear minor faults within 2 hours from the time reported;



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- ii. Clear major faults within 8 hours;
- iii. Clear meter faults within 4 hours;
- iv. Create a call centre with toll free numbers;
- v. Conduct skills improvement programs; and
- vi. Set 15 new fault centres.

1.3.4 Monitoring and supervision of the distribution network

- According to construction and maintenance guidelines, the Faults Supervisor is supposed to check the Log sheets on daily basis to analyse faults pattern, quality of work and response time to faults.²
- According to ESCOM Integrated Strategic Plan 2013-2017, ESCOM planned to install SCADA in 2013 in order to monitor and control primary distribution substations.
- ESCOM is also required to monitor the three regional distribution centers using clearly defined and documented monitoring guidelines to ensure that there is standardization in operation.

2. METHODOLOGY

Data used to answer the audit questions was collected by conducting interviews, and documentary reviews at the distribution centres which were visited. Questionnaires were also used to collect data regarding extent of rectification of faults by faults centres. Physical inspection was done in regional offices to assess proper storage of distribution materials.

2.1 Interviews

The audit team conducted interviews with staff at Department of Energy Affairs, ESCOM headquarters, regional and 12³ district offices in order to understand and assess the extent to which ESCOM is distributing electricity in an effective and efficient manner.

² page 20

³ Blantyre, Limbe, Mwanza, Zomba, Mangochi, Lilongwe, Kanengo, Kasungu, Salima, Mzuzu, Karonga and Nkhata Bay



Refer to appendix I for interviews conducted with reference to each audit question.

2.2 Document review and analysis of statistics

The team reviewed documents like customer services charter, Integrated Strategic Plan (ISP 2013-2017), Public Procurement and Disposal of Assets Act, Public Procedures Manual (PPM), construction and maintenance guidelines. These documents were reviewed in order to identify criteria in customer connection, procurement of materials, maintenance and clearance of faults and monitoring of distribution network. The team also reviewed customer files and analysed customer statistics to establish the extent to which ESCOM is providing timely connection to customers, procurement plans and contract agreements to establish the extent to which ESCOM ensures timely procurement and delivery of distribution materials.

Refer to Appendix II for documents reviewed.

2.3 Limitations in data collection and analysis

During the audit exercise, the auditee did not provide some of the information and documents requested in order to answer the audit questions. These documents were requested during entrance meeting before commencement of data collection as well as during data collection. Follow up emails were sent to remind the auditee to provide the data and documents, however, the auditee kept on promising that the documents would be provided, but at the time of writing the report, the documents were not provided and no proper reason was given as to why the documents and information were not provided. This is contrary to section 7 (1) (a) of the Public Audit Act 2003.⁴

Refer to appendix III for list of documents and information requested but not provided. Failure to provide the information negatively impacted the team's ability to effectively answer the audit questions and assess ESCOM's performance.

⁴ The section stipulates that for the purpose of fulfilling the functions lawfully conferred or imposed on the Auditor General, the Auditor General and every person authorized by him shall have full access at all reasonable time to all documents, books and accounts, public funds, public securities, Government contracts and books and accounts relating thereto and subject to audit, and to any place where they are kept.



3. SYSTEMS AND PROCESS DESCRIPTION OF DISTRIBUTION OF ELECTRICITY IN MALAWI

3.1 System description

3.1.1 Mission

‘To produce, supply and trade quality, reliable and affordable electricity through sustained growth, continuous innovation and a motivated staff to the satisfaction of our customers and other stakeholders, including the regional market’.

3.1.2 Goals and objectives of Distribution department

The distribution department was established for the following specific objectives:

- To extend the customer base.
- To maintain and operate distribution network in terms of faults, lines etc.,
- To facilitate maintenance of distribution network in order to balance supply and demand of electricity.
- Revenue protection by cutting down system and technical losses (e.g. meter migration program)
- Marketing and business development i.e. opening up pay points for customers.

3.1.3 Legal framework

In order to achieve its goals and objectives, ESCOM’s distribution system is governed by the following legal instruments; Energy Laws, National Energy Policy, Energy Regulation Act, Rural Electrification Act and MAREP Act



3.1.4 Organizational set-up of distribution and customer services division

Distribution and customer services division is responsible for distribution, supply and retail of electricity throughout the country. It also supplies electricity to some border towns of Milanje, Mandimba, Zobe and Villa Ulongwe in Mozambique as well as Lundazi and Chama in Zambia. Distribution department provides an interface between ESCOM and its customers. The division is also responsible for connecting new customers, expansion, operation and maintenance of the distribution network.

The functions of the division are decentralised into the three geographical regions (namely Southern Electricity Supply (SES), Central Electricity Supply (CES) and Northern Electricity Supply (NES)). The regional offices which are responsible for Operation and maintenance of distribution system are headed by Regional Manager also known as Distribution Engineer who reports to the Director of Distribution at the headquarters. District offices are headed by District Engineers or Officer in charge who reports to the regional manager. The distribution and customer services division has the following sections:

(i). Maintenance

This section is responsible for carrying out preventive and breakdown maintenance of distribution system especially overhead lines. It is headed by District Engineer who Reports to Regional Manager.

(ii). Transformer Workshops

This section is responsible for carrying out preventive and breakdown maintenance of distribution substations, and installing switchgear for new projects. This section is headed by Senior Engineer (Transformer Workshop) who reports to Regional Manager.



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(iii). Regional Control Centre

Regional Control Center is responsible for monitoring operation of the distribution system to ensure efficient and economical utilization of the system as well as safety of personnel. It is headed by Senior Engineer (Regional Control) who reports to Regional Manager.

(iv). Customer services

Headed by Senior Customer Services Manager who reports to DOD, the section is responsible for connecting customers. This section has the following units

Section	Section head	Section responsibility
Customer Care	Senior Customer Care Executive - Reports to Senior Customer Services Manager	Frontline office responsible for processing customer applications for electricity supply.
Planning	Senior Planning Engineer- Reports to Senior Customer Services Manager	Planning expansion of distribution system in order to connect new customers both domestic and industrial. Planning unit is centralized at three regional offices namely Blantyre which is responsible for planning in the whole southern region, Lilongwe responsible for center and Mzuzu office responsible for the north.
Construction	Senior Construction Engineer - Reports to Senior Customer Services Manager	Constructing distribution system in order to connect new customers
Installation and Inspection	Senior Installations Inspector - Reports to Senior Customer Services Manager	Inspecting customer installations in order to give supply if meeting wiring standards.



(v). Revenue protection and performance monitoring

This section is responsible Managing system losses by carrying out activities that ensure customers are using power efficiently in order to minimize losses, for example the meter migration project.

The section is headed by Senior Revenue Protection Engineer who Reports to Revenue Protection Manager. Revenue protection manager reports to DOD.

(vi). Business development & marketing

The section is responsible for Accelerating growth of ESCOM by Identifying opportunities for the growth of ESCOM. It is headed Senior Marketing Officer who Reports to Marketing Manager. The marketing manager reports to DOD

(vii). Contracts Management Unit (CMU)

Headed by CMU Manager who reports to DOD, the section is responsible for outsourcing distribution works by undertaking regional projects within ESCOM.

(viii). MAREP (Malawi Rural Electrification Program)

MAREP is a department set up within ESCOM to implement the Malawi Rural Electrification Programme which is funded by the Government of Malawi and the World Bank. The programme is implemented in phases and so far seven phases have been completed covering various Centres throughout the country. The section operates as a contractor to Government and works closely with the Department of Energy Affairs within the Ministry of Natural Resources, Energy and Mining. All infrastructures under MAREP belong to the Government of Malawi but it is managed by ESCOM in terms of maintenance, operations and new connections. The section is headed by MAREP coordinator who works closely with the Director for MAREP at the Department of Energy Affairs. The MAREP coordinator reports to the DOD.



3.1.5 Resources and budget allocation

The activities of distribution directorate are funded by revenue collected from sale of power to customers and Government as well as development partner's e.g. the World Bank.⁵

As at June 2016, the Distribution directorate had a total of 823⁶ and 1362 Permanent staff and temporary workers respectively.⁷

3.1.6 Role and responsibility of other key players

Malawi Energy Regulatory Authority (MERA)

MERA's mandate is to regulate the energy sector in Malawi in a fair, transparent, efficient and cost effective manner for the benefit of the consumers and operators. MERA has identified six strategic aspirations in its strategic plan and among them includes two that focus on electricity and are:

- Increased electricity generation capacity
- Creating an environment which minimises interruptions in electrical power supply.

ESCOM Board of Directors

The role of the board of directors is to pass resolutions for effective and efficient electricity supply in Malawi.

3.2 Process description of distribution of electricity

The distribution of electricity is the third and final stage in the supply of electricity (power) to consumers. The system carries electricity from the transmission system to individual consumers. Distribution substations connect to the transmission system and lower the transmission voltage to medium voltage ranging between 2 kV and 35 kV with the use of transformers. *Primary* distribution lines carry this medium voltage power to distribution transformers located near the customer's premises. Distribution transformers again lower the

⁵ ESCOM failed to provide the audit team annual budget for the period under review

⁶ Interview minutes-senior human resource ESCOM,DOD,and integrated strategic plan 2013-2017

⁷ Temporary workers are recruited for a maximum of 6 months, renewable for an extra 5 months



voltage to the utilization voltage of household appliances and typically feed several customers through *secondary* distribution lines at this voltage. Commercial and residential customers are connected to the secondary distribution lines through service drops. Customers demanding a much larger amount of power may be connected directly to the primary distribution level or the sub-transmission level

Management comment

Medium Voltages are 11 kV and 33 kV and low voltages are 400 Volts and 230 Volts

3.2.1 Process for connecting customers

In order to connect customers, the following steps are followed.

1. Application of electricity by a customer
2. ESCOM investigates the customer
3. Quotations are issued to successful customer
4. Payment by customer based on the quotation
5. Construction work by construction unit
6. inspection and meter installation
7. Revenue collection

These steps, are explained below

Applying for power

A customer makes an application for power through customer care section where the customer fills personal details, sketch map of where the premise is located and his or her power demand. Upon application, customer care unit generates a customer reference number which is used for subsequent connection inquires. According to customer service charter the customer is not supposed to travel more than 50 km to make



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an application and that a customer is supposed to be attended to within 15 minutes at ESCOM customer care service center.

From customer care, application forms are submitted to planning sections.

Customer investigation

Upon receipt of customer application forms from the customer care section, the planning unit conducts customer investigation in order to determine type and quantity of materials required to connect the customer, availability of network, calculation of voltage drop to ensure that supply is not less or over 6% of required voltage and ensuring that the premises haven't encroached ESCOM lines

Connection jobs are categorized into single phase which are for domestic consumption, three phase jobs which are for industrial, rechargeable and capital jobs.

Management comment

Single phase is for both domestic and commercial customers whose power requirement does not exceed 60 Amps

When all investigations are completed the planning section prepares Bill of Quantity based on material required and approved latest prices for materials, labour and transport.

Customer care unit then quotes the customers within 14 days from the date of application. Quotations are valid for a period of 30 days according to customer services charter.

Construction guidelines states that every district shall have an investigator who shall be responsible to the District Engineer or Officer in- Charge where appropriately.



Construction

When investigation is finalized and the customer has made payment based on the quotation, the job is sent to construction section. A construction engineer generates service (work) orders and authorizes materials based on bill of quantity for work to be executed. Service or work orders are generated following the principle of first come first serve basing on the date of payment. According to maintenance and construction guidelines all requested jobs from customers shall be carried out upon authorization in writing by relevant authority. Construction work involves the following activities; erection of poles, and lines, fixing of transformers and service drops.

Customer inspection and meter installation

When construction work is completed, and before the customer is connected to power, inspection and installation section inspects and tests wiring of the customer premises. If the test is passed the inspector orders meters from stores to be installed and fixed at the customer's premise. After fixing the meter the new customer seal on form is generated which is later passed to revenue section for meter activation in the system.

3.2.2 Process description for Procurement of distribution materials

Procurement of distribution materials is done centrally at ESCOM head office, and then supplied to distribution centers through Stores which is under the Finance Division. The Stores Function used to be under Distribution in the past based on the fact that ESCOM is an Engineering Enterprise. Finance took over based on the premise that stocks represent cash and Finance needed to be in control.

All materials required to connect customers within a specific financial year are based on the consolidated annual procurement plan for that year. This is a plan that consolidates all the materials required (and their quantifications) to connect customers from various distribution centers and regional offices.



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The Procurement Division is responsible for managing the procurement process which according to Public Procurement Act 2003, Public Procurement Regulations and the Procurement Desk Instructions, follows the following five major steps;

- Initiating and planning the procurement
- Identifying Sources and Preparing Invitation Documents
- Manage the Bidding Process
- Administer Contract
- Award Contract

Refer to appendix V for explanation of these steps.

Inventory system

When the procurement process is completed, and materials have been delivered by the supplier they are received by receiving section within procurement

The inspection team, an independent section, with members from different sections (tenure; more than one year) inspects the items and produces an inspection report. Inspection is done to ascertain the right quantity and specification of procured materials. The Inspection Team reports direct to the CEO.

After inspection, goods are sent to stores with GRN, together with invoices and delivery notes.

Senior Stores officer, stores clerk and the supervisor inspect the items by comparing GRN, invoice, against physical items and update the bin cards and stores computerised ledger with the Syspro accordingly.

When regional offices request for materials, a transfer voucher is used to transfer materials to regional or major stores/warehouses. Once Items are transferred, they are recognized as goods in transit until they are received by warehouse.



The inventory system is supposed to show dates of when materials are received, requested and withdrawn by user department. Inventory system and the bin card are updated accordingly when the items are withdrawn.

On quarterly basis (except fast moving items) stock taking is done and quarterly reports are prepared showing variances.

4. FINDINGS

4.1 Connection of customers

4.1.1 Delays in connecting customers.

The customer services charter stipulates that:

- ESCOM should provide new service connection within 30 days from the date of payment for a service cable connection and a meter.
- Provide a new service connection within 60 days from date the customer has paid for a job requiring service cable connection to the premises, not more than 10 poles and a meter.

A review of ESCOM annual performance reports and an analysis of customer statistics on a sample basis showed that during the period under review, ESCOM took more than the standard connection timelines of 30 and 60 days to connect customers. The analysis revealed that the average connection days for five years period under review was 352 days. A trend analysis of average connection period showed that there was an increase in the average connection period from 400 days in 2012 to 485 days in 2014 as shown by Table 1.



Table 1: Table Showing Connection Done and Average Connection Period⁸

YEARS (JULY-JUNE)	CONNECTIONS DONE	AVERAGE CONNECTION DAYS
2012	12048	400
2013	18797	423
2014	34233	485
2015	33356	147
2016	23983	307

Table 1 shows that though the average connection period was reduced to 147 days in 2015, it increased by 260 % in the year 2016 despite number of new connection reducing by 28% in the same year. This means there were more delays in 2016 than in 2015.

The average connection period of 307 days in 2016, means that a customer should expect to wait for almost a year to get power supply upon paying for quotation. This is evidenced by a review of sampled customer connection files as presented in table 2

⁸ Source: Annual performance reports



Table 2: Customer connection period (Sample)

PERIOD TAKEN TO GET CONNECTED	YEAR ENDING 2015	YEAR ENDING 2016
	# OF CLIENTS	# OF CLIENTS
Less than 30 Days	460	317
More than 30days to 60 Days	1496	819
More than 60 days to 1 year	9971	8175
More than 1 year to 4 years	2797	2554
More than 4 years	215	173
TOTAL SAMPLE	14939	12038
Actual connections done by ESCOM	33356	23983
Sample as % of actual connections	45 %	50 %
Sampled client on time	1956	1136
Sampled clients delayed	12,983	10,902
% Of sample client on time	13 %	9 %
% Of sample client delayed	87 %	91 %

Table 2 shows that out of total connections done in 2015 and 2016 14,939 and 12,038 connected customers were sampled representing 45% and 50% of total connections respectively. The analysis showed that 87% and 91% of sampled connections were delayed.

For sampled connections the longest connection periods were 2644 and 4569 for the years ending June 2015 and 2016 respectively.



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According to interviews conducted with various officers at ESCOM, these delays were attributed to erratic flow of construction and connection materials as well as lack of investigators in the district offices.

Management comment

Partly true since delays in investigations does affect delays in quoting customers and not delay in new connections. A customer can only be connected after he/she has paid for a quotation that has been investigated.

Delays in connecting customers resulted in creation of connection backlogs and loss of revenue that could have been generated from prospective customers and this may affect development of the nation.

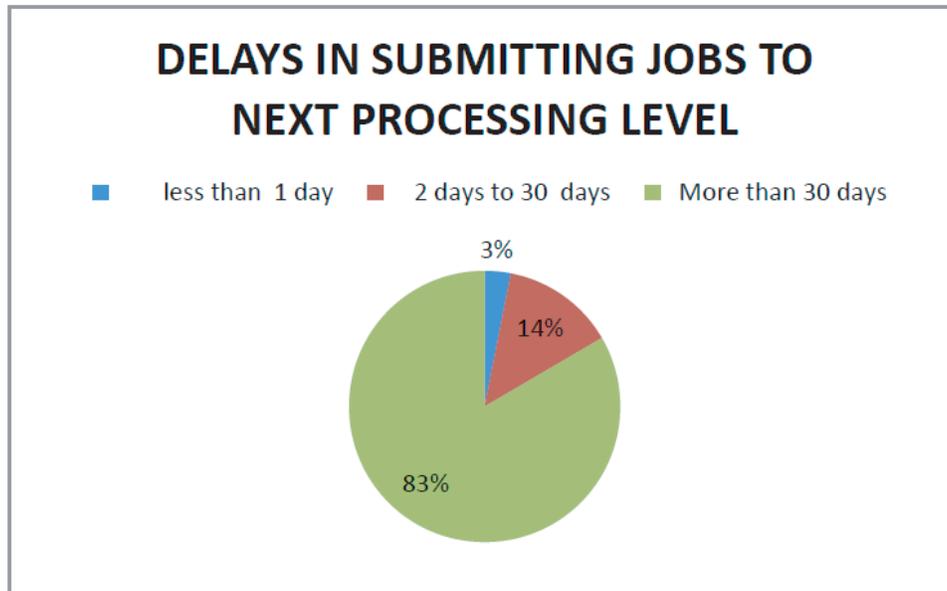
4.1.2 Delays in submitting completed Jobs to next processing level

In ESCOM a job is supposed to undergo four major stages which are Customer Care, Planning, Construction, Inspection and Installation and finally to Revenue. A job or file is supposed to be submitted to the next level of processing as soon as it has been finished in the preceding level.

An analysis of statistics from Construction to Metering during the period under review showed that completed jobs were taking long to be forwarded to the next stage of connection process. A random sample of 196 files of completed construction jobs indicated that 83% of sampled files took more than a month to be received in Installation and Inspection section, 14% took between 2 days and 30 days and only 3% took less than a day as presented by figure 1.



Figure 1: DELAYS IN SUBMITTING JOB TO NEXT PROCESSING LEVEL



Delays in forwarding files to the next stage of connection process contributed to pilling up of unnecessary backlogs which resulted in untimely connection of customers.

Management comment

ESCOM is in the process of streamlining its processes by combining some processes such as metering and construction.

4.1.3 Delays in uprating overloaded transformers

According to construction and maintenance guidelines, ESCOM is required to collect transformer load profile data for a period of time to capture the actual peak loads on the respective substation.⁹

⁹ According to interviewed officers, this is supposed to be done on daily basis



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A review of transformer spot-check report revealed that the last time that ESCOM carried out transformer spot check was in 2012 in Lilongwe.¹⁰ The report indicated that 19 transformers were overloaded and that a stop order was issued. Issue of stop orders meant that customers who applied for electricity and were within the 50 meters radius to these transformers could not be supplied with power until the transformer is uprated or another transformer is planted within the area.

Management comment

Distance of 500 (and not 50 meters) is standard connection range which can be extended if the system is reconfigured

A further review of two transformer overload correspondence box files¹¹ indicated that 266 prospective customers were communicated that they could not be supplied with power due to transformer overload. These customers have been waiting for connection since 2012.

According to interviews with officers in the construction and transformer workshop sections, delay in uprating of transformers or failure to plant new transformers is caused by delays in procurement of transformers.

Failure to uprate overloaded transformers contributed to delays in connecting customers and subsequently affects Economic and Social development of the Nation, as the Government is losing revenue that it could have been collected from prospective customers through sale of Electricity power.

Management comment

This a true observation and noted. The approach in procurement has now changed to ensure consistent flow of materials through framework agreements which will in turn make allow uprating of transformers to be quicker for ESCOM to add more customers to the network.

¹⁰ In Blantyre and Mzuzu, data concerning transformer spot check was not provided.

¹¹ These box files contains correspondences to customers who could not be connected due to unavailability of transformers in their area, encroachment, and transformer overload



4.2 Procurement of materials

According to ESCOM procurement regulations, procurement cycle (from bidding to delivery) should take 4 and 6 months for national and international competitive bidding respectively.

Interviews with various officers within distribution and procurement revealed that procurement of distribution materials always face inefficiencies and delays due to the factors explained in the paragraphs below

4.2.1 Failure to prepare and implement consolidated annual procurement plan

According to ESCOM Procurement Procedures Manual (PPM), planning phase for procurement process of materials should be done from 15 December to 30 April of every financial year during which the Procurement Department (PD) should produce a consolidated annual procurement plan. ESCOM's procurement regulations requires that all distribution materials should be procured based on this plan

A review of documents in the Procurement Department revealed that ESCOM did not prepare consolidated annual procurement plans for the following financial years 2012/13, 2013/14, and 2014/15. Procurement officers disclosed in interviews that procurement of materials was done haphazardly based on divisional material schedules.

The Senior Procurement Officer attributed the lack of preparation of consolidated annual procurement plan to lack of coordination among ESCOM departments including regional offices. The Director of Procurement also disclosed in an interview that it was the duty of the Procurement Department to manage the procurement process and coordinate the user departments to prepare annual departmental procurement plans which were supposed to feed into the consolidated annual plan. However, each department operated independently, such that the Procurement Department failed to control the situation.



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This problem contributed to a lot of adhoc procurements, without timing, such that there were delays in delivery of distribution materials, leading to delay in connecting customers.

It was also noted that although 2011/12 and 2015/16 consolidated annual procurement plans were prepared, ESCOM failed to implement them. Procurement was done outside the time frame and budget indicated in the plans. On the other hand, when making procurement, the department did not base on what was on the plan, but on what was requested from the user departments at that particular time, yet the user departments did not also base their requests on their departmental plans.

According to interviewed procurement officers and finance personnel, failure to implement consolidated annual procurement plans contributed to over expenditure on procurement.¹²

Management comment

This was noted and remedial actions/measures have been taken where ESCOM has now come up with a consolidated procurement plan which will guide procurement timelines and cash flow/ budgets and avoid adhoc procurements.

4.2.2 Failure to complete the procurement process within the stipulated timeframe

According to ESCOM procurement regulations, procurement cycle (from bidding to delivery) should take 4 and 6 months for national and international competitive bidding respectively

A review of sampled contract agreements for the period under review revealed that ESCOM did not complete the procurement cycle within the required timeframe. Procurement of distribution materials was carried over from one financial year to the other.

¹² The audit team requested for budget and actual expenditure on procurement from the director of finance and distribution, but the information was not provided despite a number of follow up emails



According to interviewed procurement officers, failure to complete the procurement cycle within the stipulated financial year was attributed to delay in commencement of the procurement process by procurement department and also delay by oversight bodies in reviewing and approving contract documents. These oversight bodies include IPC, ACB and Public Procurement and Disposal of Public Assets Authority. Interviewed officers disclosed that depending on their availability and workload, these oversight bodies took more than 2 weeks each to review and approve contract documents submitted to them, instead of a maximum of 3 days from day of submission.

Failure to complete the procurement cycle in the stipulated financial year meant that customers who were supposed to be connected within that financial year could not be connected due to unavailability of materials.

Refer to appendix V for contracts which were not completed within the required timeframe.

Management comment

The approvals period has greatly improved because the requirement for ACB to vet was withdrawn and there is improvement in frequency of IPC meetings and great coordination with Public Procurement and Disposal of Public Assets Authority.

4.2.3 Poor performance of individual contractors

The sampled contracts for distribution materials entered into during the audit period were also reviewed to assess the performance of individual contractors, in terms of adherence to required criteria and time taken to perform the contract.

The assessment showed that contractors did not adhere to the required terms and conditions agreed with ESCOM. It was also noted that almost all the contractors delayed to deliver materials on time, leading to delayed connection of customers.



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Refer to appendix VI for sampled contractors and how they performed on their individual contracts.

It was also noted that despite the poor performance by contractors, ESCOM did not impose penalty measures. According to contract agreements, and interview with officers in procurement, ESCOM set aside the following penalty measures in order to avoid non-performance of contractors and enhance timely delivery of materials:

- Liquidated damages.–penalty effected on delay to supply. i.e. a certain percentage for each week of delay (0.5% of contract price every week)
- Liquidation of performance security from the bank.in the form of bank guarantee or bank certified cheque. 10% of contract price or fixed actual amount. This is for contracts to be terminated, where the contractor has completely failed.
- Contract administration-i.e. managing the contract by monitoring, reminding through letters, negotiations etc.
- Cancellation of the contract

Management comment

Noted and these cases are now being handled by Contracts Management officer

4.2.4 Use of inaccurate material quantifications and specifications

According to the Public Procurement and Disposal of Assets Act, and ESCOM procurement regulations, user departments are required to raise requisitions of materials to be procured, with accurate quantifications and specifications. These requisitions are submitted to central stores which are required to check the re-order levels and confirm quantity of materials available in all ESCOM warehouses, before raising purchase requisitions with accurate quantifications to procurement department.



Interviews with procurement officers, and stores personnel as well as review of stores records revealed that user sections did not prepare accurate quantifications of materials to be procured, and stores on the other hand failed to check re-order level of materials before raising a purchase requisition to procurement department. Furthermore, it was revealed that user sections used outdated material specifications in their requisitions.

Considering the fact that the procurement department did not have engineers and material specifications committee, this failure to properly quantify materials, contributed to over and or under procurement of materials. On the other hand, use of inaccurate material specifications contributed to delay in procurement of materials as manufacturers and suppliers sent back such orders and the process had to start all over again. For instance, tender number ESC 198/14-15 was opened in January instead of December due to use of outdated specifications.

Management comment

Specifications have been reviewed and there is greater team effort in quantification of materials

4.2.5 Awarding contracts to contractors who did not have the capacity to perform.

According to Public Procurement Desk Instructions 13-17, ESCOM is required to award contracts to bidders who have passed the evaluation process¹³ and have proven capacity to perform the contract efficiently and effectively.

A review of 12 sampled bids and contract agreements for distribution materials¹⁴ floated and entered into during the period under review revealed that ESCOM awarded contracts to five contractors who did not have the financial capacity to perform as shown by Table 3.

¹³ The evaluation process is carried out in three stages. 1. Preliminary screening. 2. detailed evaluation. 3. financial evaluation. Source; ESCOM PPM page 19

¹⁴ Population was 42 contracts



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Table 3: contractors who did not have capacity to perform contracts

Procurement Number	Procurement Method	Name of contractor	General Description	Observation
ESC897/11-12	NCB (Open Tendering)	Int. Procurement Services. Orange Hill Trd	Line Materials: <ul style="list-style-type: none"> • Switches • Steel Components • Insulators • Fuses 	The contractor was awarded the contract but he did not have financial capacity and requested for Assignment of proceeds Arrangement before performing the contract hence, there were delays in performance of the contract by almost a year and the contractor failed to deliver the materials. ESCOM later cancelled the contract. The contract Price was K796 million.
ESC 330/NCB/G/FY 13-14/1and 2	NCB, Open Tendering	Paramount holdings limited And ACH Limited	Distribution Materials Line hardware and accessories and	This contract was made on 29 June 2015 but it was later cancelled due to non-performance by the contractor which resulted from lack of financial capacity and failure to provide performance security. It was noted that the contractor also requested for change of contract price after 7 months of award of the contract. The contract price was K62 million for Paramount Holdings and K141 million for ACH Limited. The materials under this contractor were later included in ESC198/ICB/G/FY13 /14



ESC 198/ICB/G/FY 13-14	ICB	Apollo Int. HMI	<ul style="list-style-type: none"> • 11 and 33KV Transformers • Transformer rewinding wire • conductors • connectors 	HMI investment was awarded the contract, but after three months of award, the contractor did not perform the contract because he did not have financial capacity. Later, the contractor entered into assignment of proceeds arrangement with the bank. Apollo Int. changed manufacturers from India to China a month after signing the contract. The Contract price was USD10,683,562,97 for Apollo and USD5,339,661
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Interview with officers revealed that ESCOM awarded contracts to contractors who did not have financial capacity due to failure by ESCOM to conduct due diligence or post qualification review of successful bidders which is aimed at checking and confirming that contractors have the resources, experience and qualifications required to satisfactorily perform a contract.

Management comment

One of the main reason was that there were delays to sign contracts because of protests from other bidders who were not successful hence ACB cleared the contract in August 2015.

4.2.6 Inefficient inventory system

According to Syspro application system used at ESCOM central stores section, a purchase requisition number is supposed to be endorsed automatically on the Local Purchase



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Order (LPO) when the order/contract is made, The aim is to show order numbers which are to be used to match materials ordered/procured against those delivered by suppliers to ensure that delivered items are in line with what was ordered in terms of quantity and quality.

It was observed that the system did not generate LPO numbers such that when the goods were received, the receiving section as well as stores failed to match the quantity of goods requisitioned by user sections, against those procured by procurement department and delivered by the suppliers.

According to interviewed stores officers, the problem was supposed to be corrected by IT officers however, at the time of Audit, it was not done. This contributed to lack of accountability over materials starting with the user divisions/departments, procurement division and stores.

It was also noted that usage of materials against materials procured was not assessed in ESCOM. User job cards were not punched into the Syspro system, through Bill of Materials Module, and monitored during issuing through the Work In progress where variances will not be entertained

On the other hand, the procurement and stores systems, allowed users to raise requisitions above the quantities sanctioned and planned for, without subsequent recourse to the customer. Just to appreciate the risk associated with this arrangement, we noted that about 19 drums of conductor went missing.

Management comment

There was need to verify this information with Security and Stores.

4.2.7 Lack of proper custody of materials

It was noted through physical inspection of warehouses that materials were not orderly stored, contrary to requirements of Treasury Instructions (stores). It was observed that some materials e.g. transformers, cables, bolts and nuts were kept outside stores premises on bare ground without cover and got



soaked in the rain. According to senior stores officer at head office, this contributed to lower than expected life span of such materials, and that they developed faults easily. *Refer to photos below.*

Picture 1: Transformers and other distribution materials soaked in the rain





Picture 2: Transformers, cables and rewinding wire





Picture 3: Distribution materials stored outside warehouse in Lilongwe





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Pictures 1, 2 and 3 above show transformers, cables rewinding wire and other distribution materials stored on bare ground, and soaked in the rain in Blantyre (pictures 1 and 2) and Lilongwe (picture 3). According to senior stores officer, this was due to lack of enough ware houses at ESCOM. However inspection of available warehouses showed that even inside the available warehouses, materials were scattered and not orderly stored, as depicted by pictures 4, 5 and 6 below:

Picture 4: Various distribution materials scattered at headquarters warehouse





Figure 2: Picture 5, various distribution materials not orderly stored in the warehouse in Blantyre





Picture 6: Various distribution materials at Blantyre warehouse





Pictures 4, 5 and 6 above show bolts and nuts and other various distribution materials not orderly stored at the central stores warehouse in Blantyre.

According to interviewed stores officers at headquarters and regional offices, lack of proper custody of materials contributed to cases of theft of distribution materials. The interviewed officers revealed that almost every month there are reported cases of theft at different warehouse.¹⁵

Management comment

The observations above have been noted and remedial action will be taken. One of which is to open up new stores facilities such as old Bata factory warehouse which we now have.

4.3 Maintenance and faults

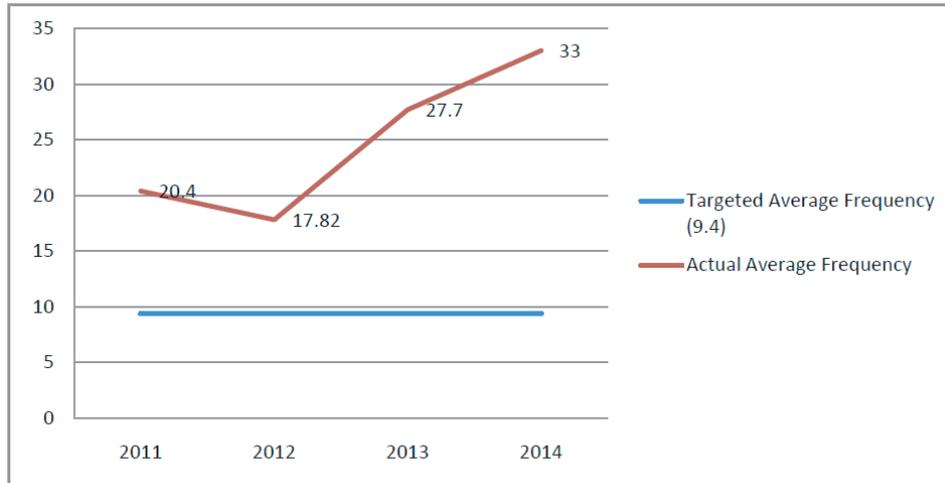
4.3.1 Failure to reduce time and frequency of power interruptions and load shedding

ESCOM planned to reduce power interruptions by 80% by 2017 in its strategic plan. Various activities were supposed to be implemented in order to achieve this target. An analysis of data on the frequency of power interruptions per installed kVA revealed that on average power interruptions were 15 times more than the set target (9.4) of power interruptions per installed kVA's. Since 2012 there has been an increase in the frequency of interruptions with the year 2014 recording the highest average frequency as illustrated in figure 2 below.

¹⁵ The audit team requested for theft reports for the period under review in order to ascertain the value of materials stolen. However, ESCOM did not provide the reports as at the time of audit, nor the value of stolen items



Figure 3: Average frequency of interruptions per installed kVA



It was also observed that time of interruption per installed kVA increased tremendously between the years 2011 and 2014. The targeted time was 25.8 hours of interruption per installed kVA, but the actual time of interruption during the period under review was 34.91 hours in 2011 and increased to 265 hours by the end of 2014/2015 financial year. Between 2011 and 2012 there was a 14% decrease in time of interruption per installed kVA but sharply increased by 250% in 2013 and 152% in 2014. This is in sharp contrast to the company's strategic goal of reducing power interruptions. Figure 3 and 4 below shows the time of interruptions and the annual changes.

Figure 4: Time of Interruption per installed kVA

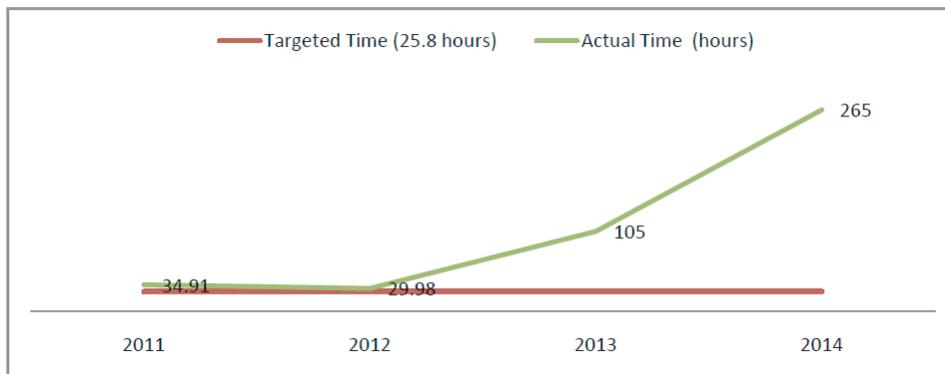
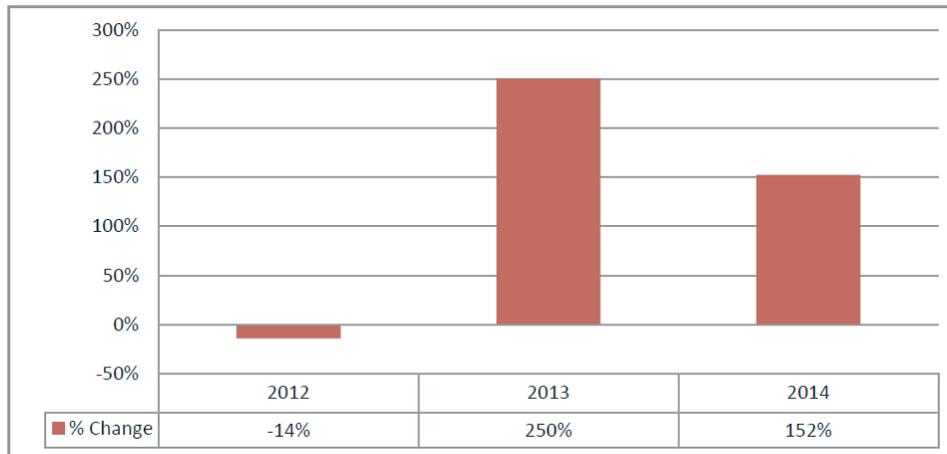




Figure 5: Percentage change on time of interruptions per installed kVA



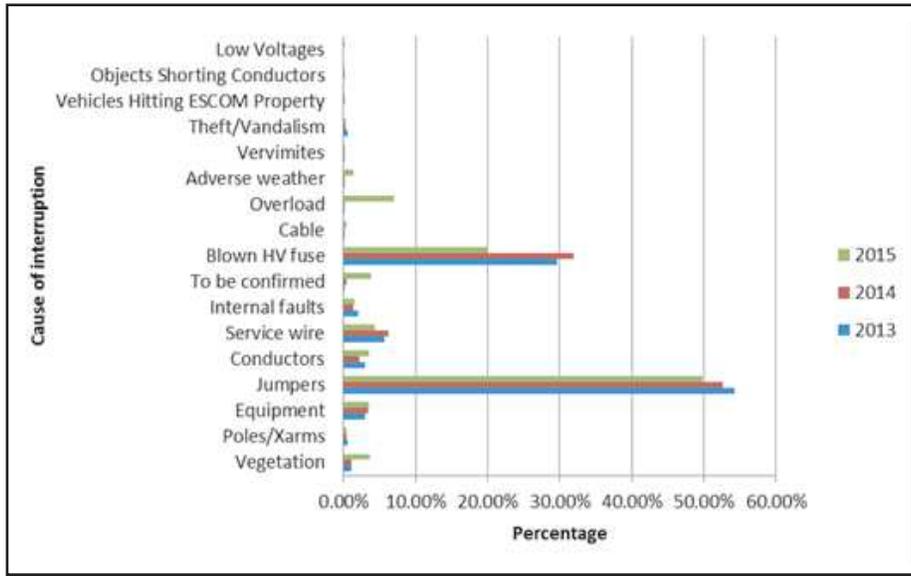
An analysis of data on the causes of power interruptions on the MV systems showed that on average 52% of power interruptions were caused by faulty jumpers and 27 % were caused by blown HV fuses. Figure 5 shows the causes of power interruptions on the MV system over the 3 year period from 2013

Management comment

This observation was correct at the time – ESCOM has carried out extensive maintenance on the network in the subsequent years which is resulting in the reduction in power interruptions



Figure 5: Causes of MV Power Interruptions



Through interviews and documentary reviews, it was noted that although the implementation of approved maintenance programs, reinforcement of the distribution system and rehabilitation of the old distribution networks were done, excessive and prolonged load shedding due to insufficient generation capacity contributed to high average frequency of interruptions per installed kVA's.

Management comment

True observation – however, ESCOM is no longer responsible for investments in generation capacity.



4.3.2 Delays in clearing faults

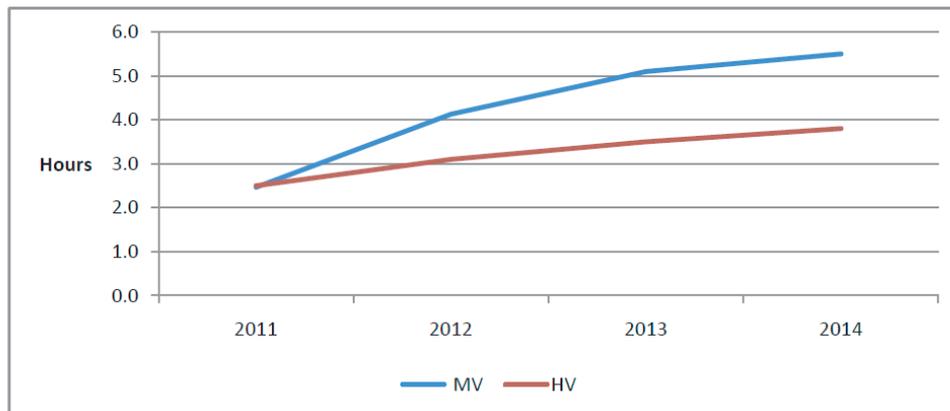
ESCOM planned to improve response to faults by 30% by 2016. To achieve this, ESCOM planned to clear minor, major and meter faults within 2 hours, 8 hours and 4 hours respectively from the time the fault is reported or noticed.¹⁶

An analysis of data on reported faults showed that there was a delay to clear minor faults (low and medium voltage system) clearance time increased from an average of 2.5 hours to 5.5 hours. The analysis also showed that major faults (high voltage system) clearance time also steadily increased from an average of 2.5 hours to 3.8 hours despite remaining within the set target. Figure 6 show the average fault clearance time for both medium and high voltage systems.

Management comment

The observation is correct. However, ESCOM has increased teams required to attend to faults and increased preventive maintenance.

Figure 6 show the average fault clearance time



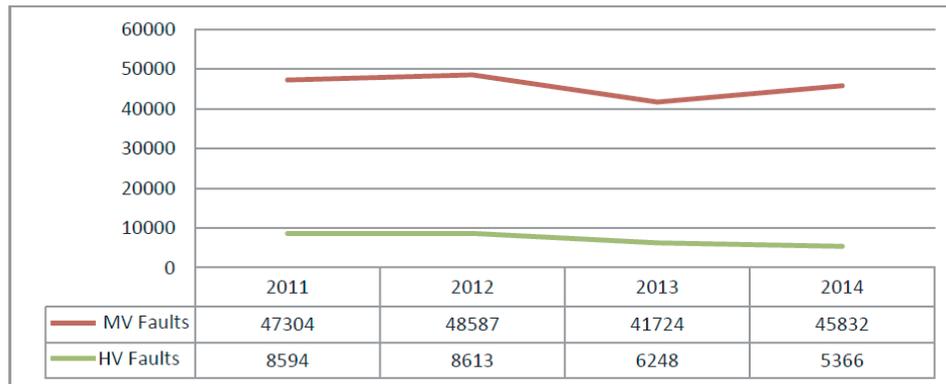
¹⁶ Source: ESCOM Integrated Strategic Plan 2013-2017, strategic objective no.3



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It was also observed that there was a downward trend on the number of faults during the period under review as shown in figure 7, which is in contrast to the trend on the fault clearance time. It was noted that most of the faults are on the LV and MV Systems where large number of equipment exists.

Figure 7: Trend on the number of faults

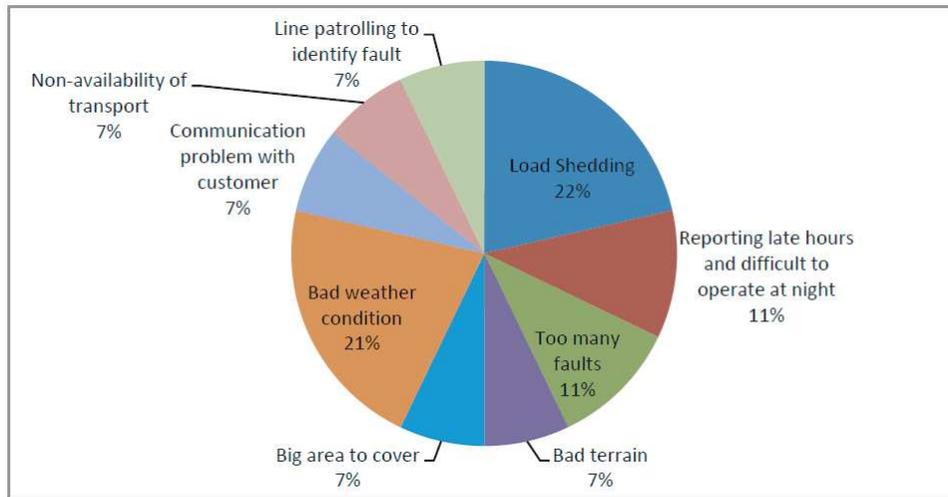


An analysis of questionnaire responses by fault centres personnel¹⁷, revealed that delays to clear minor faults is mainly caused by load shedding programmes, bad weather condition especially during rainy season, too many reported faults and security and safety concerns for late hour faults. Figure 8 shows respondent's views on the reasons for slow response in clearing minor faults.

¹⁷ 28 respondents from 9 fault centres across the country. Respondents were Fault Supervisors, Fault Operators and Power Lines Men/Faults Men who are actively involved in clearing minor faults.



Figure 8: Reasons for slow response in clearing minor faults



4.4 Monitoring, evaluation and supervision system for distribution of electricity

4.4.1 Failure to Check faults Log sheets by the supervisors

According to construction and maintenance guidelines¹⁸ Faults supervisors are required to check the log sheets on daily basis to analyze faults pattern, quality of work and response time to faults.

A review of log sheets in 7 out of 13 faults centers visited showed that supervisors were not checking the log sheets as shown by table 4 below.

¹⁸ Page 20 paragraph 4.2.2.4.1 Monitoring and Evaluation



Table 4: extent of faults monitoring by faults supervisors.

Name of Faults center	Log sheets checked by faults supervisor
Chichiri	✓
Mibawa	✓
Limbe	✓
Manja	✓
zomba	✓
Mangochi	X
Kasungu	X
Mzuzu	✓
Karonga	X
Nkhatabay	X
Salima	X
Lilongwe old town	X
Kanengo	X

No proper and convincing reason was given as to why faults supervisors were not checking the log sheets in order to monitor and analyze faults pattern.

Failure to check log sheets by the Faults Supervisors contributed to failure to analyze faults pattern, and to follow up on faults that were not cleared



4.4.2 Failure to monitor distribution network

According to ESCOM Integrated Strategic Plan 2013-2017, ESCOM planned to install SCADA in 2013 in order to monitor and control primary distribution substations

ESCOM is also required to monitor the three regional distribution centers using clearly defined and documented monitoring guidelines to ensure that there is standardization in operation.

It was however observed that during the period under review, ESCOM did not have defined and documented guidelines to monitor distribution centers. According to interview with SPM engineer, it was revealed that due to lack of defined monitoring guidelines, and monitoring framework, ESCOM did not monitor the distribution network which contributed to regional distribution centers operating differently from each other.

According to interview with the director of distribution even though SCADA was installed it was not fully operational at the time of audit such that monitoring of the distribution network was not adequately done.

Management comment

Good observation and remedial measures are to be taken through increased supervision. ESCOM is also setting up a National Call Center that will automatically have all faults cases logged and monitored. Unresolved cases will thus be escalated to the next level by the system. SCADA system is up and running for most parts of the Southern Region and plans are underway to extend the system to other areas and regions.

5. CONCLUSIONS

As a key player in the energy sector, and the only electricity provider in the country, the citizens of Malawi expect ESCOM to contribute significantly to sustainable social-economic development of the country. The macro as well as micro industries rely on power to do business which will assist in reducing poverty in the country. On the other hand, the residential Malawian relies on power for a better and transformed living.



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Despite establishment of an integrated strategic plan which provides a roadmap and long term commitment for ESCOM to meet customers' expectations, the distribution and customer services division keeps on facing inefficiencies in its operation and service delivery due to failure to implement the customer services charter.

Based on the evidence provided in the report, these inefficiencies are manifest by delays in customer connections due to inefficient procurement process, increased time and frequency of power interruptions and load shedding programs which have negatively affected businesses and lives of households, increased number of faults and delay to clear them and lack of adequate monitoring of the distribution network.

These inefficiencies are a deterrent to ESCOM's realization of its mission, and contribute to ESCOM's failure to meet the growing demand for electricity and provide timely, reliable and affordable electricity to enhance and boost the economy of the nation and improve the livelihood of Malawians.

6. RECOMMENDATIONS

In order to meet the growing demand for electricity in the country which will assist in industrialization rural transformation and enhance sustainable economic development, ESCOM should not only establish but also implement effective and efficient strategies to provide timely and reliable electricity to customers. Addressing the inefficiencies in customer connection process, procurement as well as reducing time and frequency of power interruptions and load shedding is of paramount importance for ESCOM to meet its mission, and achieve its goals and objectives

To address the inefficiencies in customer connection, procurement, maintenance and faults, and monitoring and supervision, ESCOM is recommended to implement the following measures.

6.1 Recommendations on connections

To ensure that ESCOM provides timely connections to its customers, ESCOM is recommended to:

- provide connection and construction materials to all sections involved in connection process timely and in a consistent manner to avoid delays in connections arising from unavailability of materials;
- ensure that materials required to connect customers are procured as a package;



Management comment

This is being done through annual procurement plan that has been developed

- Decentralise Planning and Installation to District levels so that all planning and Installation activities should be done by officer at a District level rather than waiting for a team from Regional Office;

Management comment

This has been done with the district officers given some mandate and authority to investigate, quote and connect customers. ESCOM intends to adopt standard pricing as well so that investigations will mainly deal on the feasibility of connecting the customers and not estimating quotations.

- Avoid piling up of customer backlog by ensuring that completed jobs at one connection stage are passed to the next processing level as soon as they are completed;

Management comment

Noted. A system to monitor and queue jobs is being set up in customer service.

- Maintain an updated transformer load profile in all substations for purpose of planning.

Management comment

Good recommendation and this will be internalised in ESCOM systems and procedures

6.2 Recommendations on procurement

To improve on procurement of distribution materials, and ensure that distribution materials are available to connect customers, ESCOM is recommended to undertake the following measures:

- Avoid adhoc procurements by ensuring that user sections prepare sectional/divisional procurement plans which should feed into an annual consolidated procurement plan;



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Management comment

This is already in place

- Ensure that procurement of materials is based on the annual consolidated procurement plan;

Management comment

The plan is available and being implemented

- Ensure that the procurement process commences on time, in order to complete the procurement cycle within the stipulated time frame of 4 and 6 months for NCB and ICB;
- Ensure that user sections use accurate material quantifications and specifications in their sectional procurement plans. Stores should check the re-order level of materials before raising a purchase requisition to procurement department in order to avoid over or under procurement of materials;

Management comment

This was noted and is being addressed.

- Ensure that contracts for the supply of distribution materials are awarded to contractors who have passed the evaluation process and have proved to have the capacity to perform the contract efficiently and effectively. This should be done by conducting a due diligence or post qualification review of contractors before the contracts are actually awarded;
- Ensure that non-performance by contractors is not condoned at all cost, by imposing the set penalty measures;

Management comment

Contracts management officer in place to monitor and trigger penalties

- Improve the inventory system by ensuring that the loopholes in the Syspro system are addressed and rectified;



- Enhance accountability over materials by carrying out an assessment of usage of materials against materials procured by procurement department, and drawn by user sections;

Management comment

This is being implemented

- Ensure that there is proper custody of materials.

The Ministry of Natural Resources, Energy and Mining is recommended to consider removing ACB in contract vetting process as this is a duplication of the role played by Public Procurement and Disposal of Public Assets Authority and that ACB should only be involved where corruption is suspected to have taken place.

6.3 Recommendations on maintenance and faults

In order to improve on maintenance and faults clearance programs, ESCOM is recommended to:

- Reduce the frequency and time of power interruptions per installed kVA especially on the MV system by ensuring that increased generation capacity is matched by increased power demand or distribution capacity;
- Reduce time taken to clear faults by addressing the prolonged and excessive load shedding problems affecting the country, which accounts for number one cause to the delay in clearing faults;

Management comment

ESCOM is procuring more IPPs and undertaking demand side management such as energy saver bulbs to reduce demand. ESCOM to save 40 MW by the end of 2017 through demand side management.

6.4 Recommendations on monitoring and supervision

To enhance monitoring and supervision of the distribution network, ESCOM is recommended to:



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- Ensure that the distribution network and regional distribution centres are monitored using clearly defined and documented monitoring guidelines and framework, to ensure that there is standardization in operation;
- Ensure that SCADA is fully operational in order to monitor and control primary distribution substations;
- Ensure that faults supervisors in all faults centres check the faults log sheets on a daily basis in order to analyse faults pattern and response time to faults;

Management comment

SCADA will be fully implemented by 2020 and National Call centre by 2018



7. Appendices

7.1 Appendix I: Interviews conducted

Interviewee	Purpose and Audit question covered	Place
Director of distribution	To get clarification on issues regarding all audit questions	Blantyre
Regional Manager	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Blantyre
District Engineers for distribution	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Blantyre, Limbe, Lilongwe, Mzuzu, Zomba, Karonga, Salima
Planning Engineer-Distribution	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Blantyre
Customer Care Executive	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Blantyre and Lilongwe



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Customer Services Engineer	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Blantyre
Construction Engineer	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Blantyre
Acting Senior construction engineer	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Lilongwe
Construction supervisor	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Lilongwe
Planning Officer	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Kanengo
Installation supervisor	To collect data customer statistics and clarifications in order to establish the extent to which ESCOM is providing timely connections to customers	Lilongwe



Data Officer	To collect customer statistics	Blantyre
Director of Procurement	To collect data and clarification to establish the extent to which ESCOM procures distribution materials timely and in the ordered quantity and quality	Blantyre
Chair of IPC	To get clarification on the role IPC plays in the procurement process of distribution materials and penalty measures for non-performing contractors	Blantyre
Senior Procurement Officer-Distribution	To collect data and clarification to establish the extent to which ESCOM procures distribution materials timely and in the ordered quantity and quality	Blantyre
Procurement Officers	To get understanding on procurement process at regional offices	Lilongwe and Mzuzu
Finance controller-Expenditure	To collect data on Procedures for procurement ,payment and custody of distribution materials	Blantyre
Senior stores Controller	To get clarification on inventory system, and custody of distribution materials. To carry out physical observation of how materials are stored in the warehouses, as well as issue and usage of materials	Blantyre



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Stores supervisor	To get understanding on distribution of materials from head office to regional office, and how materials are stored and issued to user sections	Lilongwe
Director of corporate services	To collect data on ESCOM's effected resolutions made by the Board of Directors	Blantyre
M & E officers	To collect data in order to establish the extent to which ESCOM monitors the distribution network	Blantyre
Assistant Performance Monitoring Engineer	To collect data in order to establish the extent to which ESCOM monitors the distribution network	Blantyre
Faults supervisors and faults men	To collect data in order to establish the extent to which ESCOM clears reported faults on time	All districts visited
Director of Finance	To collect financial information for ESCOM, distribution division and trend in the budget and expenditure on procurement of distribution materials	Blantyre
Chief Internal Auditor and Internal Auditor	To collect internal and technical audit reports carried out for the distribution division during the review period	Blantyre and Mzuzu



7.2 Appendix II: List of documents reviewed

Document	Purpose
Intergrated strategic plan 2013-2017	To establish ESCOM's strategic goals and commitments regarding distribution of electricity
Customer services charter	To establish criteria for distribution of electricity
Construction and maintenance guidelines	To establish criteria for construction, maintenance, faults clearance and monitoring
Internal Audit reports 2013-2016	To establish extent to which ESCOM implements internal audit observations regarding distribution of electricity
Technical audit reports 2013-2015	To establish extent to which ESCOM implements technical audit observations regarding distribution of electricity
Procurement plans for 2015/2016	To establish the extent to which ESCOM plans for procurement and extent to which the plans are implemented
Contract agreements with suppliers for distribution of materials	<p>Check contract period.</p> <p>Check expected time of delivery of materials and compare with dispatch document.</p> <p>Check for clauses pertaining to late delivery of materials.</p> <p>Check expertise of suppliers.</p>
IPC minutes	To establish frequency of IPC meetings.
Public procurement Act 2003	To establish criteria for procurement



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ESCOM procurement procedures manual	To get understanding on procurement process
Faults and maintenance annual reports	To assess the extent to which ESCOM carries out maintenance and faults clearance programs on time
Customer application forms and quotation statistics	To collect data on time taken by ESCOM to quote customers after payment
Customer files and statistics	To get statistics on the time taken by ESCOM to connect customers
Transformer spot check reports 2012	To establish the extent to which ESCOM uprate transformers
Transformer overload correspondence files	To get statistics on number of customers who could not be connected due to transformer overload, and the time the customers waited to be connected
Faults log sheets	To assess the extent to which faults supervisors check, monitors and supervises faults pattern and response time to faults



7.3 Appendix III: List of documents and information not provided

1. From the Director of Finance:

1. Source of ESCOM funding for 2011/2012, 2012/2013, 2013/2014 and 2014/2015 and 2015/2016 financial years.
2. approved annual budget for ESCOM during the years mentioned in 1
3. approved budget for distribution directorate for the years mentioned in
4. Annual Budget for procurement department for the years mentioned in 1
5. Actual expenditure for procurement during the same period mentioned

2. From the Director of Procurement:

For sampled distribution materials procured during the period under review:

1. Purchase orders (RFQ)
2. Delivery notes
3. Goods inspection reports
4. Goods received notes
5. Invoices

3. Evaluation reports

4. List of overloaded transformers in the southern and Northern Region

5. National Installation reports for the year 2011/2012, and 2013/2014

6. Organisation structure of distribution and customer services division



7.4 Appendix IV: Process description for procurement of distribution materials

1. Initiating and planning the procurement

This is the first stage in the procurement process which involves raising a requisition, preparing a description of the requirements and confirming the procurement method.

A requisition is raised, and signed by an appropriate officer from the user departments for the following reasons:

- (i) Documenting the goods, works or services required;
- (ii) Confirming the availability of funding, based on the estimated value of the procurement requirement;
- (iii) Confirming that the goods cannot be obtained from stores, where appropriate; and also where according to set stock levels, time has come to trigger procurement.
- (iv) Documenting the approval to proceed with the procurement.

Once duly completed, using the standard format and correct coding the requisition form for the majority and major items e.g. transformers, and meters, is passed to stores for stores to confirm quantity of materials available in all ESCOM warehouses. The two sections then agree on the quantities and specifications to be procured and Stores then raises and issue a purchase requisition to procurement department. Here the MRP Committee has come into play to ensure a unified approach to the requisitioning of stock items.

For direct items such as tools and accessories the requisitions do not pass through stores but sent direct to procurement.

The Procurement Department (PD) examines the procurement request and in the event of non-compliance, the user requisition is sent back promptly and directly to the requisitioning division for the appropriate modifications. When the user requisition is duly completed, the PD opens a file for the requirement and allocates a Procurement Number. The Requisition must be linked to a line in the Procurement Plan, otherwise the PD rejects it.



During the stage of raising the requisition the user department is required to fully prepare the description of requirements.

To ensure that the procurement meets the requisitioning division's needs, the PD, in conjunction with the requisitioning division is responsible for confirming the procurement method (already established in the Procurement Plan for the relevant Fiscal Year) to be used, planning the procurement and setting a timeline.

The most appropriate procurement method is selected taking into account the estimated value, when the items are required, and the potential sources for the procurement. Section 30 of the Public Procurement Act provides methods of procurement to be pursued.

ESCOM uses the following procurement methods.

- Competitive bidding (open tender)- local and international bidding
- Restricted tendering
- Single sourcing
- RFQ

If procurement will be done using competitive bidding under restricted tendering, Procurement Division seeks approval from PP. ICB under open tendering does not require ODPP approval.

When no objection is granted by Public Procurement and Disposal of Assets Authority, Procurement Department issues Local Purchase Order (LPO) or an indent (Foreign Purchase Order) approved by executive management e.g. CEO or responsible Line Director in liaison with the director of finance.

Once the purchase orders/contracts are approved, original copy goes to supplier, one copy goes to creditors department, and another copy goes to receiving section (where items are received)

International competitive bidding is supposed to take an average of 120 days while national Competitive Bidding should take 28 days.



2. Identifying Sources and Preparing Invitation Documents

This second stage involves the following activities: preparing a bid notice, conducting a pre-qualification, obtaining and assessing an Expression of Interest, developing a shortlist, drafting a Bidding Document or Request for Proposals Document or an RFQ Document.

An Invitation to bid or pre-qualify notices are raised and approved by IPC before being published in order to attract the widest possible competition, which should assist the procuring entity in obtaining value for money; and offer all potential bidders a fair opportunity to bid for government funded contracts.

Pre-qualification is used to identify bidders who have adequate capabilities, resources and experience to perform a contract, prior to the invitation and submission of detailed bids. The pre-qualification procedure obtains and assesses information on the qualifications of potential bidders, in order to restrict actual bidding to a list of qualified bidders. *This is achieved through the publication of a pre-qualification notice, the receipt of submissions and the evaluation of submissions against pre-defined criteria.*

Bidding documents are drafted using the appropriate standard bidding documents. The support from the user divisions is required for the technical parts of the documents since the user departments retain final responsibility for this part.

Open Bidding, Restricted Bidding, Two-Stage Bidding and Request for Proposals methods use a full bidding document. A **Request for Quotations** document is required for the Request for Quotations method only

3. Managing the Bidding Process

This stage involves publishing of an invitation to bid notice, issuing the invitation documents, managing pre-bid conferences and site visits, handling bidder clarifications, modifications and extensions, and receiving and opening bids.



The notices are published on ESCOM's website, and adverts placed in leading national newspapers. For international tenders and where publication is to include trade journals, other relevant foreign publications are involved.

Bidding and other invitation documents, such as pre-qualifications, Request for Proposals and Request for Quotations documents, are issued or sold promptly, to provide bidders with sufficient time to prepare and submit their Bids.

Bidders must be issued with the same information, within the same time period, to ensure that the process is fair.

The procurement department is required to keep all records for the documents issued.

During a pre-bid conference, ESCOM briefs bidders on the procurement requirement and responds to questions from bidders, in order to assist them in preparing their bids. During site visits, bidders are given the opportunity to view the site where goods are to be installed or works or services performed.

Where any substantial change is made to the original approved bidding document, the PD must first consult the IPC and for responses/changes dealing with technical matters, the user divisions need to be consulted and provide their inputs.

All communication with Bidders needs to happen via an official general email address of ESCOM.

The PD (a) will manage and assist in the whole process and is responsible for the safe-keeping of bids until they are delivered to the IPC member for opening, (b) should always make sure a member of IPC is present at the opening of the Tender Box and acts as Chairperson of the Bid Opening Panel.

Evaluating Offers/bids

According to Public Procurement Desk Instructions 13-17 the evaluation of bids consist of three stages:



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- (i). A preliminary screening to eliminate bids which do not comply with the basic requirements of the bidding document and bidders who do not meet mandatory qualification requirements
- (ii). A detailed evaluation, to determine whether bids are substantially responsive to the technical and commercial requirements of the bidding document
- (iii). A financial evaluation to compare the costs of responsive bids and determine which is the successful bid and should be recommended for award of contract. Besides total price, evaluators will look at unit prices in Bill of Quantities (BoQ) or of goods, daily fee rates, etc.

The evaluation process is managed by the PD and each Bid Evaluation Committee member will sign a Declaration of Impartiality at the commencement of the evaluation and prior to any Bid being examined. A procurement officer should be present at all times during the evaluation to ensure the procurement rules are abided by. An evaluation checklist is used to evaluate bids. For the checklist. The results are documented on a Bid Evaluation Report prepared by one of the committee members, overseen by the PD and by using the relevant standard evaluation report template.

IPC approval is required for the completed evaluation report. No communications accepting or rejecting any Bid, or indicating which the successful Bidder is, must be sent to any Bidder before this approval is obtained.

Conducting due diligence or a Post Qualification

Post-qualification is conducted to check whether a successful bidder has the resources, experience and qualifications required to satisfactorily perform a contract. A post-qualification is conducted before a contract is awarded, and the contract denied if the bidder is not qualified, with an aim of reducing the likelihood of defaults or poor performance under a contract. The results of the post-qualification are approved by IPC



Awarding Contracts

This stage involves procedures for (a) issuing a notice of acceptance, (b) preparing and issuing a contract document and (c) preparing and issuing a Purchase Order for accepting a Bid, a Proposal or and RFQ of the successful Bidder.

These procedures are managed by the PD and overseen and approved by the IPC and ODPP.

Issuing a Notice of Acceptance

Sending a notice of acceptance to the successful Bidder provides a rapid means of forming a contract, rather than waiting while the complete contract document is prepared. This offers a number of benefits:

- (i) The contract comes into force on an earlier date, meaning the delivery or mobilization periods start sooner and overall contract completion should be achieved sooner;
- (ii) Where the validity of the bid is due to expire shortly, it can be accepted quickly, before there is a need to request an extension of validity, with a risk that the Bidder is not prepared to extend the validity.

The notice of acceptance is a contractually binding notice, which results in the entry into force of a contract.

The notice of acceptance will be signed by the relevant authorised person, but sent by the PD, once all approvals have been obtained. The financial commitment should have been made prior to issue of the notice of acceptance.

Preparing and Issuing a Contract Document or Purchase Order

The contract document confirms in writing the contract which has been agreed and formed between ESCOM and the supplier. It defines the good, works or services to be provided, the price to be paid for the goods, works or services and establishes the rights and obligations of each party. The contract document is ESCOM's document for administration of the contract.



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The PD is responsible for the preparation of all Contract Documents and Local Purchase Orders, for obtaining necessary approvals, for getting the approved contract document signed and for issuing the document. IPC approval must be obtained for all the above documents, prior to their issue.

The PD is responsible for notifying unsuccessful bidders that they have not won a contract, as soon as possible after the entry into force of the contract with the successful bidder, and that they are provided with information on why they failed to win, if they request it.

Administering Contracts

This final procurement stage involves administering a contract, amending a contract, completing a contract and terminating a contract.¹⁹

The PD is responsible for contract administration, while the User Departments are responsible for contract management.

Contract administration procedures are designed to ensure that:

- (i) The supplier performs the contract in accordance with the terms and conditions specified in the contract;
- (ii) The procuring entity fulfils its obligations and duties under the contract; and
- (iii) Swift remedial or preventative action is taken when problems arise or are foreseen.

Contract administration procedures are largely determined by the terms and conditions of each individual contract and the description of requirements for the goods, works or services.

Completing a Contract

Upon completion of contract activities and obligations the contracts are formally reviewed and the procurement file closed, The following steps carried out:

¹⁹ ESCOM's Contract Administration Manual



- (i) The PD and contract manager identify that all contractual obligations and warranty periods have been completed.
- (ii) The PD reviews the contract and the procurement file to check that the contract is in fact completed.
- (iii) The PD Closes the file and archives it.

The PD Ensure that the closed file is listed in the PD's records and is marked with the date which it must be retained until.



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7.5 Appendix V: Contracts not completed within the required timeframe

Contract Number	Procurement Method	Financial year for procurement cycle	Financial year when contract was made	Remarks
1. ESC897/2011-12/1	NCB	2011/2012	2012/2013	This was a 2011/12 procurement of line hardware and accessories. Bidding and evaluation of bids was done in 2011/2012, however the contract was made on 27/02/2013, expected delivery of materials was 4-6 weeks from date of contract. However, ESCOM did not provide status of the contract, in terms of when delivery was done.
2. ESC897/2011-12/4	NCB	2011/2012	2012/2013	This was a 2011/12 procurement of fuse links Bidding and evaluation of bids was done in 2011/2012, however the contract was made on 25/01/2013, expected delivery of materials was 4-6 weeks from date of contract. Actual date of delivery was not provided by ESCOM

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Contract Number	Procurement Method	Financial year for procurement cycle	Financial year when contract was made	Remarks
3.ESC561/ICB/2013/3	ICB	2012/2013	2013/2014	This was a 2012/13 procurement of Fuses, switches, and Ring main units. Bidding and evaluation of bids was done in 2012/2013, however the contract was made on 04/11/2013, expected delivery of materials was 12 weeks from date of contract. Actual date of delivery was not provided to the audit team
4.ESC561/ICB/2013/3	ICB	2012/2013	2013/2014	This was a 2012/13 procurement of Bolts and Nuts. Bidding and evaluation of bids was done in 2012/2013, however the contract was made on 11/10/2013, expected delivery of materials was 12 weeks from date of contract. Actual date of delivery and status of the contract was not provided to the audit team



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Contract Number	Procurement Method	Financial year for procurement cycle	Financial year when contract was made	Remarks
5. ESC560/ICB/2013/2	ICB	2012/2013	2013/2014	This was a 2012/13 procurement of Switches, breakers, fuses and metering units. Bidding and evaluation of bids was done in 2012/2013, however the contract was made on 04/10/2013, expected delivery of materials was 12 weeks from date of contract. The actual date of delivery could not be established as this information was not provided by ESCOM
6. ESC198/2013-14/2	ICB	2013/2014	2015/2016	The procurement of line hardware materials and accessories was supposed to be done in 2013/14. however the contract was made on 7 august 2015, while delivery of materials which was supposed to take a maximum of 20 weeks was done in 2016
7. ESC198/2013-14/3	ICB	2013/2014	2015/2016	The procurement of Steel items, steel wires meters and metering equipment was supposed to be done in 2013/14. However, the contract was made on 17 September 2015, delivery was to be done in 16 weeks time from date of contract. However, ESCOM did not provide status of the contract as at the date of audit

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Contract Number	Procurement Method	Financial year for procurement cycle	Financial year when contract was made	Remarks
8. ESC198/2013-14/5	ICB	2013/2014	2015/2016	The procurement and supply of conductors and connectors was supposed to be done in 2013/14. however the contract was made on 23 September 2015, while delivery of materials which was supposed to take a maximum of 20 weeks from date of contract was not yet completed at the time of writing the report (2016/2017 financial year)
9. ESC198/2013-14/1	ICB	2013/2014	2015/2016	The procurement and supply of 11 and 33KV Transformers and transformer rewinding wire was supposed to be done in 2013/14. however the contract was made on 30 July 2015, while delivery of materials which was supposed to be completed in May 2016 was not completed at the time of writing the report (September 2016. i.e 2017 financial year) It was also noted that the first consignment which was to be delivered by October 2015 was delivered in January 2016 while the second and last consignment expected to be delivered in January and May 2016 respectively were not yet delivered.



7.6 Appendix VI: Performance of individual contractors

General Description	Procurement Number	Procurement Method	Remarks
1 Line Materials <ul style="list-style-type: none"> • Switches • Steel Components • Insulators • Fuses 	ESC897/12-13	(NCB)	The contractor wanted Assignment of proceeds arrangement before performing the contract, because he did not have financial capacity to perform the contract. Hence there were delays in performance of the contract. ESCOM provided 2 extensions but the contractor delayed to supply by almost a year. Third extension was not granted by ESCOM and the contract was later cancelled.
2 Distribution Materials Bolts, Nuts and Accessories Metering Units	ESC 560/ICB/G/FY 12-13	Open Tendering	This contract was made after contract 1 above failed and was cancelled The contract was performed with manageable delays.
3 Line Materials <ul style="list-style-type: none"> • Conductors • Bolts, Nuts and Accessories 	ESC 561/ICB/G/FY 12-13	Open Tendering (international)	The contract was performed with manageable delays.
4 Line Hardware and Accessories <ul style="list-style-type: none"> • 11KV Transformers • Transformer Rewinding Wire • Switches and Distribution Boxes • Metering Equipment 	ESC 198/ICB/G/FY 13-14	Open Tendering (international)	The contract delayed with more than 2 years. The first consignment of Conductors (twin cables which is very important in connection) was delivered in June 2016 instead of October 2015. On the transformer consignment Apollo international, from August after signing the contract no performance was done, the contractor changed manufacturers from India to china. one month was lost due to that. The first consignment was to be delivered in October 2015 but it was delivered in January 2016. However, the transformers could not be used for connection because of conductors which were delivered in June 2016 the remaining consignments have not yet been delivered hence there was intermittent connection of applicants

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General Description	Procurement Number	Procurement Method	Remarks
<p>5 Distribution Materials</p> <ul style="list-style-type: none"> • 11KV Transformers • 33KV Transformers • Cables <p>Conductors</p> <p>Insulators</p> <p>bolts and connectors</p> <ul style="list-style-type: none"> • rewinding wire • with no delays 	<p>ESC330/NCB/G/FY 13-14</p>	<p>Open Tendering</p>	<p>designed to be a buffer of number 5 above.1/4 of number 5 in terms of quantity</p> <ul style="list-style-type: none"> • cancelled at IPC Level <p>Awarded but cancelled due to non-performance by the contractor. No performance security, and change of price after 7 months of award according to him it was due to depreciation. However, he did not perform within the contract period and if it was performed within the timeframe, the reason of depreciation wouldn't affect the contract. He delayed to perform due and faced depreciation. Price change wouldn't be given because he did not provide security. Note that his financial capacity as provided by him to ESCOM during evaluation was very good and qualified him to be awarded the contract. Yet in actual sense after due diligence by ESCOM before the award of the contract he did not have the capacity (hence contract management as a measure did not work hence contract cancelled and was blacklisted) contractor performed</p>



MALAWI GOVERNMENT

PERFORMANCE AUDIT REPORT
ON
DISTRIBUTION OF ELECTRICITY IN MALAWI
BY
ELECTRICITY SUPPLY CORPORATION OF
MALAWI LTD
IN
THE MINISTRY OF NATURAL RESOURCES,
ENERGY AND MINING

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