

PIESA CONFERENCE PRESENTATION

‘ESCOM’S ASPIRATIONS TO REDUCE NON TECHNICAL LOSSES’

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PRESENTATION OUTLINE

- 1 Introduction
- 2 Challenges faced by the Electricity Industry
- 3 Why loss reduction is a business solution to the challenges
- 4 ESCOM's scenario
- 5 ESCOM's strategies to reduce Non Technical Losses
- 6 Achievements to date
- 7 Challenges
- 8 Conclusion

INTRODUCTION

- Facts about ESCOM
 - Government owned firm
 - Mandated to : Generate ,transmit and distribute and retail electricity.
 - Generation capacity-351 MW
 - Hydro-based generation
 - Customer base- 286,380

INTRODUCTION- Cont'd

- Importance of Electricity
 - Economic and social growth
 - Conflicting theories
 - Neoclassical and ecological theories
 - Gamula ,et al (2013) -Overview of energy sector in Malawi confirmed electricity importance for Economic and Social growth
 - Many scholars are advocates to ecological theories

CHALLENGES FACED BY THE ELECTRICITY INDUSTRY

- Nature of the industry
 - Capital intensive with low return
 - Inadequate or no funding from the state or from tariffs
 - New investments have long lead times to materialize e.g. power station
 - Lack of political will.
- Slow to embrace reforms to allow private sector participation- Newbery(2005)
 - Bureaucratic and slow to embrace change

CHALLENGES-Cont'd

■ Performance

Generally poor

- Inadequate capacity
- Poor revenue collection
- Low access
- Poor customer service
- High LOSSES, etc

WHY LOSS REDUCTION IS A BUSINESS SOLUTION TO THESE CHALLENGES

- Reduced capital investments
- It is a measure of managerial strategy – Efficiency measure
- Improved financial performance
- Reduced tariffs
- Minimum political interference _ within the control of the utility in most cases
- Quick win solution

LOSSES

- What are losses in electricity industry?
 - Energy and Revenue consumed without being accounted for.
- Types of losses
 - Technical-Inherent (Antmann, 2009)
 - Non Technical-External to the system

ESCOM'S SCENARIO

- Inadequate capacity, poor customer service, low access and high losses, poor revenue collection, etc.
- Losses staggering at ~22%
- Bulk of it is NTL
- Some causes of NTLs
 - Meter tamperers
 - Hooking(tapping) on MV/LV lines

CAUSES OF NTLs cont'd

- Inappropriate metering (wrong tariffs)
- Un-declared MDs
- Errors in computation of Tech Losses
- Faulty meters
- Meter by-passes
- Bribing meter readers
- Errors in billing
- Meter reading errors, etc
- **NTL is a Phenomenon called THEFT(Singh,2009)**

STRATEGIES PLANNED BY ESCOM TO REDUCE NTLS

- ESCOM aspires to reduce its losses to 17% by 2017 (ISP 17)
- HOW?
- Several interventions
- What are these interventions?
- Establishment of a Revenue Protection Department

STRATEGIES-Cont'd

- Implementation of the Customer Service Charter-Timely connections, Meter faults
- Installation of feeder meters to account for energy. Accurate determination of energy and losses and identify areas of high losses
- Reposition MD meters from customers' installations-Use metering kiosks(0.3% of customer bring 45% revenue)-Remote Meter Reading

STRATEGIES-Cont'd

- Migrate from post-paid to Split meters (prepaid) for all customers except for Large Power Users (LPU)-Started
- Customer verification exercise(CVE)
- Inspect all customers' premises every quarter of the year(Currently once every 13 years)
- Clearance of all meter defects/backlog

STRATEGIES Cont'd

- Tip-off anonymous
- Smart metering-Future
- Plans to establish a Revenue Loss Forum (RLF)-
Holistic approach
- Revenue protection manual

Customer service charter



ESCOM CUSTOMER SERVICE CHARTER

1. ABOUT ESCOM

The Electricity Supply Corporation of Malawi Limited (ESCOM) is a public utility incorporated under the companies ACT and is involved in the generation, transmission, distribution and supply of electricity in the country.

2. THE CUSTOMER SERVICE CHARTER

This Customer Service Charter is a commitment by the Corporation to provide quality customer service to its Customers. It sets out the rights and obligations of the customer and ESCOM's service standards and responsibilities.

3. GENERAL CONDUCT OF ESCOM STAFF

ESCOM staff shall be courteous, polite and Customer oriented. Those who depart from these service standards should be reported to the Complaints Office on +265 (0) 992 722 799 / +265 (0) 882 041 636 or E-mail complaints@escom.mw, or any nearest ESCOM office.

4. CUSTOMER DUTIES AND OBLIGATIONS

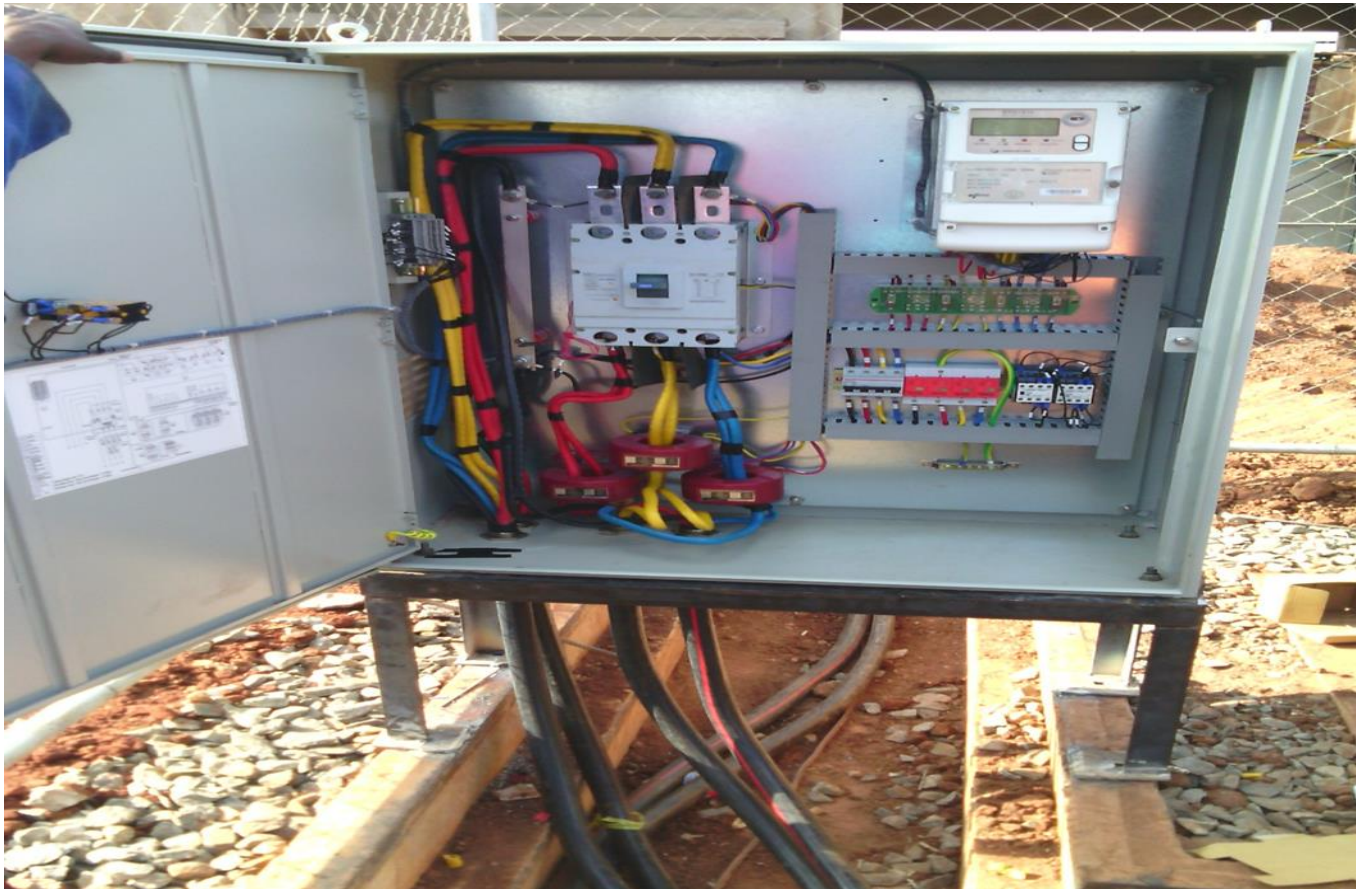
- 4.1. To pay electricity bills on time
- 4.2. To report to ESCOM cases of theft, illegal connection and vandalism of ESCOM equipment such as transformers and cables.
- 4.3. Not to damage or tamper with ESCOM equipment such as meter or service wire
- 4.4. To provide correct and accurate information
- 4.5. To promptly report to ESCOM cases of system failure, faults, dangerous occurrences, hazardous or potentially hazardous incidents

5. ESCOM SERVICE LEVEL COMMITMENTS

ESCOM Commits to attain the following service level standards:

- 5.1. Open for business any of its Customer Service Offices from 8am to 4 pm on work days.
- 5.2. Provide a quotation or response for a new service application within 14 days from date of receiving an application from the Customer.
- 5.3. Provide a new service connection within 30 days from date the customers has paid for a job requiring a service cable connection and meter only,
- 5.4. Provide a new service connection within 60 days from date the customers has paid for a job requiring a service cable connection to the premises, not more than 10 poles and a meter
- 5.5. Provide a new service connection based on an agreed connection period for major works requiring a new transformer, substation upgrading and construction/ upgrading of high voltage power line
- 5.6. Provide the Customer with the first bill within 45 days upon changing premises or getting a new service connection.
- 5.7. Provide prepayment metering to all new service connections except industrial customers.
- 5.8. Transfer existing postpaid customers to prepayment metering according to the existing plan made available to customers by ESCOM
- 5.9. Attend to reported meter faults within 4 hours.
- 5.10. Resolve general complaints within 10 work days
- 5.11. Make available customer service facilities and electricity payment services within 75 km of the customer premises.
- 5.12. Restore electricity supply interruptions caused by simple faults within 4 hours.
- 5.13. Disconnect customers with electricity bills not paid within 30 days.
- 5.14. Reconnect customers disconnected for nonpayment within 8 work hours upon receipt of payment.
- 5.15. Maintain quality of electricity supplied to the Customer within the statutory limits.
- 5.16. Attend to Customers within 15 minutes at any Customer Service Center.

Kiosk for repositioning MD Meters



Split pole mounted meters



ACHIEVEMENTS TO DATE

- Establishment of a Revenue Protection Department-major milestone-How?-Focus.
- Split Metering of High risk customers-Revenue has improved.
- Launch of Customer Service Charter
- Customer Verification Exercise-45% of premises visited have defects, tampers or meter by passes
- Tip-off anonymous, CVE, many mischievous customers being caught and revenue recovered.

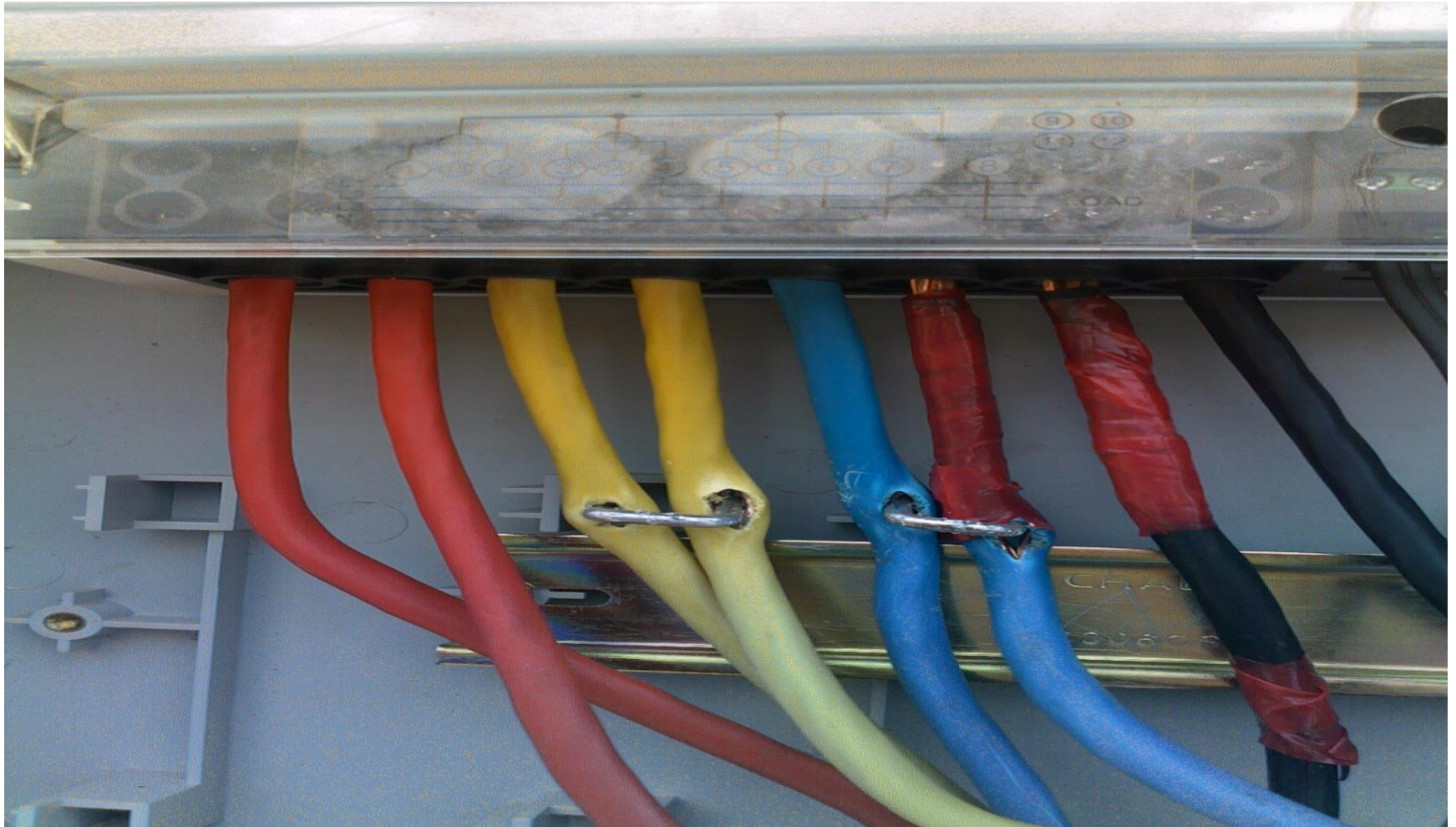
ACHIEVEMENTS TO DATE

COMPARISON SPLIT AND PREPAID NON SPLIT METERING						
CUSTOMER'S NAME	PREPAID (UNITS)-non split			PREPAID (UNITS)-Split		
	13-Oct	13-Nov	13-Dec	14-Oct	14-Nov	14-Dec
A	2,648	910	4,691	1,405	1,104	1,652
B	109	-	-	1,285	1,401	1,376
C	774	667	485	340	205	327
D	330	707	630	1,285	844	1,310
E	804	791	231	616	903	477
F	1,173	1,549	1,117	804	987	817
G	-	-	-	18	184	-
H	666	1,235	5,504	6,699	184	5,506
I	179	45	74	296	288	713
	6,683	5,904	12,732	12,748	6,100	12,178
	25,319			31,026		
APPROXIMATE INCREASE IN SALES				5707 UNITS (23%)		

CHALLENGES

- Resources are not infinite
- New operations/department/activities
- Capacity Constraints
- Good News is challenges are being addressed
- Out sourcing Policy being implemented

By-passed Split Meter a pole



CONCLUSION

- Losses increase operating costs of power utilities
- Results in increasing price of electricity
- They erode profits-Choking operations
- Strategic Imperative to find efficient ways to reduce losses

CONCLUSION-Cont'd

- If losses were to reduce by 4%, ESCOM would be able to gain more than a quarter of a billion Malawi Kwachas every month(USD636,815)
- Over 12 months- 3.5 MW power station
- Reduced demand-means more capacity to be used for un explored industries.
- ESCOM has taken the right direction-What do think?

End of presentation and thank
you for your attention

Questions and Comments