



ESTABLISHMENT OF REVENUE PROTECTION UNIT IN BPC

Sustainability Through Efficiency













PRESENTATION CONTENT





□OBJECTIVE OF THE PRESENTATION □BPC ESI OVERVIEW **SYSTEM LOSS LEVEL** ☐ NATURE & EXTENT OF REVENUE LEAKAGES IN THE BPC ESI MANAGING FINANCIAL LEAKAGES IN VARIOUS **FUNCTIONS** □RP PROBLEMS UNEARTHED **PRP INITIATIVES/MITIGATIONS EMBARKED ON DACHIEVEMENTS UCHALLENGES DFUTURE PLANS**









OBJECTIVE OF THE PRESENTATION



 BPC - Overview of the establishment of a new Revenue Protection (RP) Unit including the sourcing of the correct manpower and resources as well as training of the personnel and the establishment of policies, processes & procedures.





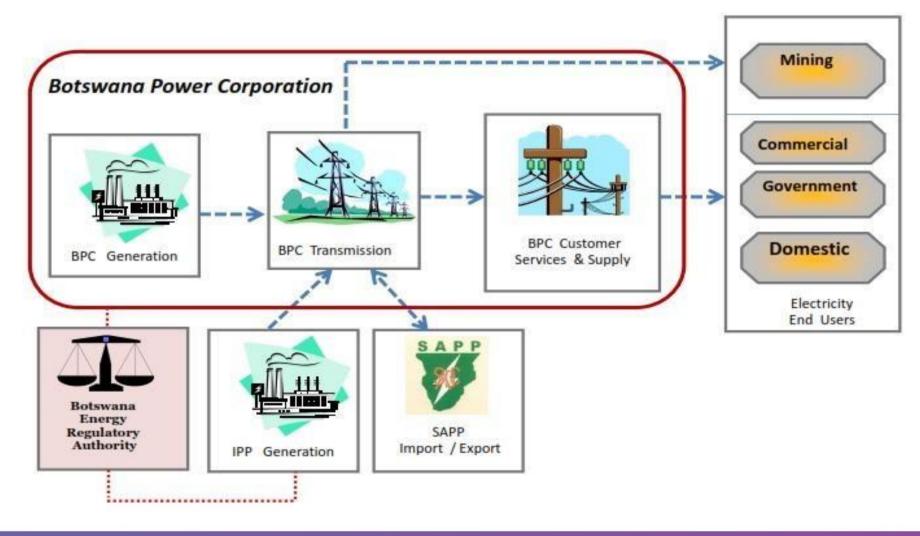








THE BOTSWANA ELECTRICITY SUPPLY INDUSTRY **OVERVIEW**











SYSTEM LOSS LEVEL





Balancing & Accounting

System Loss level below may be perceived insignificant comparison to the regional Utilities BUT considering the small infrastructure with an installation base of about 600,000 consumers and a Peak Demand not exceeding 815MW it is very significant, and the impact is felt.

BPC System Loss Level (2023/4 FY)













NATURE AND EXTENT OF REVENUE LEAKAGES in BPC ESI

□ESI – BPC

Revenue leakages are incurred along the entire value chain right from Generation, through energy dispatch methodologies into Transmission & Distribution networks and up to even the Commercial processes.

- ☐ Revenue leakages various forms;
 - Technical and non-technical losses (Core Business)
 - Financial leakages in both the core & support business functions









NATURE AND EXTENT OF REVENUE LEAKAGES IN **BPC ESI Cont...**

PROCUREMENT

- Financial losses occurring in Procurement
- Procurement issues causing leakages in the core business

LEGAL

- Financial losses occurring in Leaal
- LEGAL issues causing 2. leakages in the core business

STORES

BOTSWANA POWER CORPORATION

- Financial losses occurring in Stores
- STORES issues causing leakages in the core business

GENERATION/ POWFR **IMPORTS**

TRANSMISSION **NETWORK**

DISTRIBUTION **NETWORK**

COMMERCIAL

System losses: Technical & Non-Technical Losses

HUMAN RESOURCES

- 1. Financial losses occurring in HR
- 2. HR related issues causing leakages in the core business

INFORMATION TECHNOLOGY

- Financial losses occurring in IT 1.
- It related issues causing leakages 2. in the core business

ENERGY DISPATCH

- Financial losses occurrina in Support Functions
- Leakages due uneconomic dispatch from available sources

Revenue Assurance is a cross-cutting function, across all function areas and it's vital that we are aware of potential revenue leakage points in our function areas.





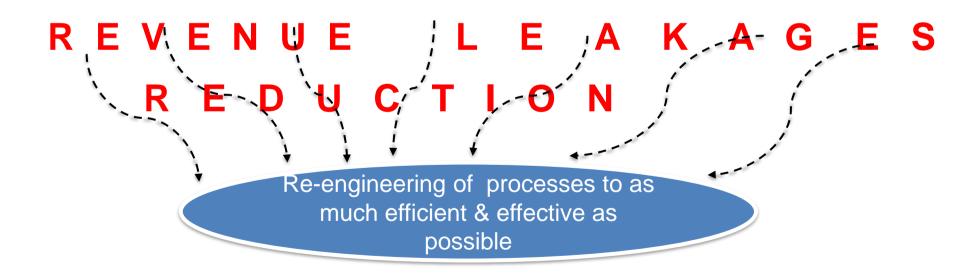






MANAGING FINANCIAL REVENUE LEAKAGES IN VARIOUS FUNCTIONS

These financial revenue leakages are low hanging, mainly administrative (processes and procedures) and don't require much investment to plug.







CAUSES OF REVENUE LOSS WITHIN BRECORPORATION

- □ Lack of robust policies, processes & procedures to curb revenue leakages.
- □Use of electromechanical meters on some of the LPUs exposing BPC to the risk of NTL due to several technical deficiencies of this type of meter.
- ☐ Metering designs which increase error margins i.e summation CTs & other external summators such as FAF.
- ☐ Human error/skills gaps during installations
- □ Defective/obsolete metering equipment







CAUSES OF REVENUE LOSS WITHIN BRICGORPORATION

- ■Wrong categorisation of customers (Tariff)
- □KW Tariff
- □Outright theft bypassed meters, bridged prepayment meters, illegal connections to the distribution system.







RP INITIATIVES EMBARKED ON SUSTAINABILITY THROUGH EFFICIENCY



□Establishment of the Revenue Protection Unit □ Review of policies and procedures ☐ Enforcing adherence to maintenance schedules and periodic audits □ Automation of metering for Large Power Users □ Replacement of obsolete meters ☐ Installation of split smart meters in clustered areas to minimise access ☐ Seal management program □Resourcing the metering and RP unit (interim) □Capacity building -Training











ACHIEVEMENTS





| | SARPA conducted an audit and informed the Corporation on viable decisions |
|-----|---|
| | Manpower resourcing (RP Unit) – RP engineer, metering audit teams, service electricians countrywide supporting the audit function |
| | Maintenance schedules in place & adhered to |
| | Energy Balancing & Accounting framework complete, the analyses are being done |
| | All staff handling metering & RP functions have been trained (although more enhancement still needed) |
| | SARPA has conducted training on revenue protection basics for service electricians & further conducted advanced training for Supervisors. |
| | Accreditation of the metering course aimed at certifying all the teams |
| | Seal management framework finalised and sealing of meters has commenced. |
| | Revenue recovered over the past 2 years (P158M) |
| | The AMR project for large power users |
| | Replacement of obsolete meters with smart meters |
| (J) | |

CHALLENGES





- ☐ The RP unit is more of an interim solution, still not as effective & efficient as required. (fully fleshed depart required)
- ☐ The audit teams not yet trained to the required competency levels hence limited
- ☐ Metering system still operated manually hence susceptible to errors







FUTURE PLANS





- □ Advanced Metering Infrastructure Solution
- □Continuous training on Revenue Protection













BOTSWANA POWER CORPORATION

Thank You

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