

NELSON MANDELA BAY MUNICIPALITY

NMBM - EDF JOINT FEASIBILITY STUDY



MISSION OBJECTIVE AND TOP PRIORITIES

OBJECTIVE:

- Find priorities and quick wins for NMBM to improve sustainably its financial and quality of service performances

TOP PRIORITIES:

- Reinforce general management, better use of IT, manage with KPIs
- Increase NMBM cash (>100 MZAR/year): losses reduction (including electrification), increase invoices collection rate
- Improve customer services (including quality of supply)
- Optimise network development

NMBM PRIORITY

Today NMBM in electricity has:

- 10-14% electrical losses (i.e. 14-22% losses on LV), with an increasing trend (8% in the past): 250 MZAR / year
 - 7,5% unpaid invoices : 250 MZAR for electricity / year
- 17-20% (10-14% + 86-90% x 7,5%) of electricity purchased to Eskom is not paid by the clients.
- 500-600 MZAR were lost in 2015/16 in electricity.

The trend is not in the good direction due in particular to :

- High increases of tariffs every year
- An increasing number of clients that can benefit from the Assistance To The Poors grants (ATTP).

KEY ACTIONS TO DECREASE LOSSES AND INCREASE COLLECTION

- **Nominate a project director on losses reduction and receivable management**
- **Increase fraud/anomalies detection : profitable activity, increase internal field staff on this activity (today only 5 FTE/600), plus external contractor, request fraud detection by all field internal/external field staff: meter readers and staff in charge of disconnections/reconnections for unpaid invoices, Ask the field staff to detect all types of frauds and not only meters bypasses: include meter tampering, fraudulent connections and reconnections (on unpaid invoices), dismantling of connections for repeat offenders, false ATTP clients**
- **Hire private detectives to detect parallel organisations/individuals proposing their services to steal electricity: stop the problem at the source**
- **Apply internal disciplinary sanctions**
- **Connect illegal connections on non proclaimed ervens (25000). But check Business Plan, and special financing**

KEY ACTIONS TO DECREASE LOSSES AND INCREASE COLLECTION

- **Improve the design of metering for domestic clients and oblige when possible the installation of prepayment split meters to decrease fraud. This is particularly relevant for risky clients. Do not put any more meter panels in the houses because it is easier to fraud.**
- **Action on public lighting that is regularly switched on during the day**
- **Quick wins on technical losses**
- **Increase the control of the ATTP clients files**
- **Start to block the prepayment meters also for ATTP clients with unpaid invoices (political decision).**
- **No systematic write-off of ATTP debt after 90 days (political decision).**
- **In parallel internal and external communication on:**
 - how to save electricity particularly for the ATTP (distribution of leaflets by field commercial staff).
 - the bad impact of stolen electricity and unpaid invoices on the general

KEY ACTIONS TO DECREASE LOSSES AND INCREASE COLLECTION

- Reinforce the management, set KPI's and demanding objectives, of the 31 employees in charge of payment collection within the Budget & Treasury department to collect more cash on the first 21 days after payment due date.
- Potential opportunity to increase the connection fee, in particular for MV clients and important LV clients.
- Accelerate the move from credit to prepayment meters of the 7% remaining credit meters clients to improve collection rate and also to reallocate meter reading and disconnection/reconnection staff to fraud & anomalies detection (More than 100 internal and external employees).
- Control existing internal and external staff efficiency on cash collection with the follow up of KPI's (Number of disconnections & connections per team).

KEY ACTIONS TO DECREASE LOSSES AND INCREASE COLLECTION

- **After control of staff efficiency/profitability on cash collection, increase dedicated staff for clients disconnection**
- **Cut important clients after 45 days**
- **Implement a close control and a coaching of the external contractor in charge of the previous invoices collection**

IMPROVE CLIENTS SERVICES MANAGEMENT

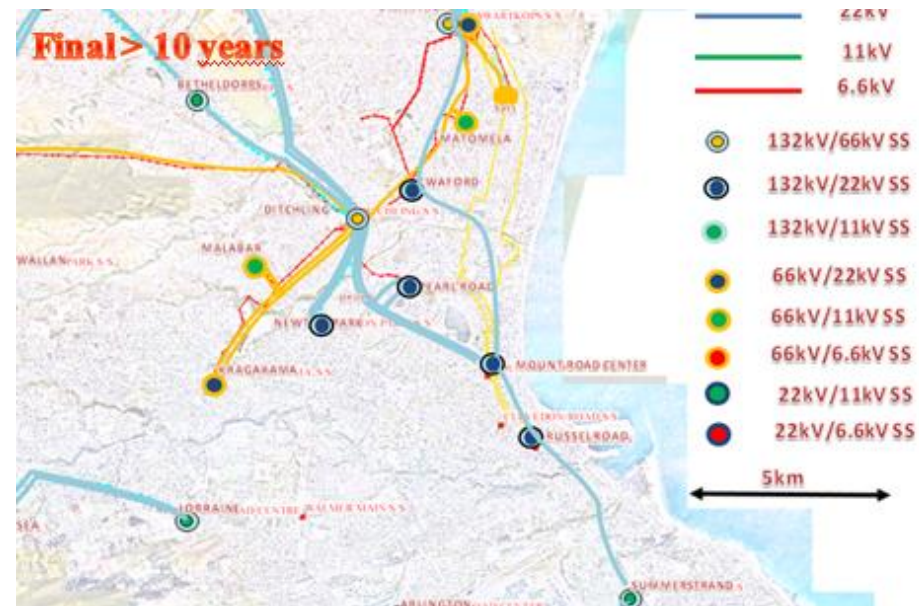
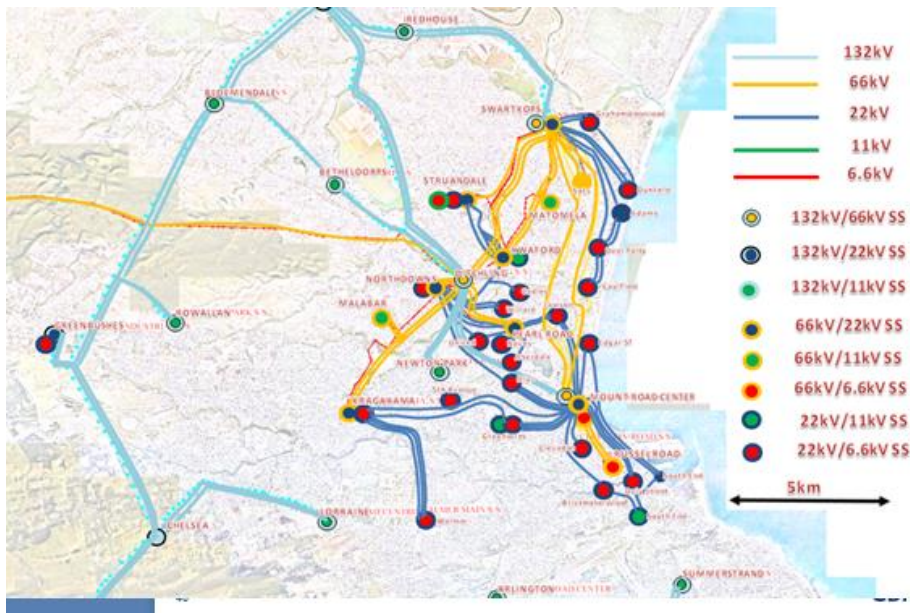
- **Implement customer surveys to identify the clients priorities and satisfaction level per service**
- **Find potential synergies among all the front offices through the development of multi-skilled employees able to answer all customer requests**
- **Better follow-up of the complete customer services process from initial call to final service delivery (order traceability, execution time...)**
- **Improve quality of supply:**
 - Appoint a project manager to develop a transversal view on every concerned department
 - Calculate SAIDI and SAIFI (Duration and Frequency of interruptions)
 - Automation of the MV network
 - Protections technical policy (reclosers vs. drop off fuses, ...)

OPTIMISE NETWORK DEVELOPMENT

- **An oversized HV system :**
 - Some underloaded HV/MV transformers
- 36 HV/MV substations + 20 MV/MV substations for only 600 MVA
- **Non optimal HV/MV substations design : use of double busbar, no firewalls protection**
- **3 voltage levels in the same areas (22, 11 and 6.6 kV)**
- **Many long MV outages due to drop off fuses on derivations, potential of MV feeders automation/remote control**
- **Potential to renew while simplifying and standardizing the MV network (switching substations, voltage levels, cross-sections)**
- **Safety issues in MV/LV substations (bare LV switchboard)**
- **Potential to improve the CAPEX prioritisation process**
- **Better sharing of technical information (technical data bases)**

OPTIMISE NETWORK DEVELOPMENT

Potential simplification of the HV and MV networks in city centre with one voltage level in 22kV with higher profitability compared to 11kV (and 6,6 kV): technical losses reduction, reduction of backlog replacement costs and maintenance costs on old assets due to the reduction of the number of HV/MV and MV/MV substations from 30 to 10.



THANK YOU FOR YOUR ATTENTION