

MISA Briefing to PC on Energy

Electricity Distribution Industry and Infrastructure Rehabilitation

Tuesday, 03 October 2017

BACK TO BASICS : SERVING OUR COMMUNITIES BETTER



cooperative governance

Department
Cooperative Governance
REPUBLIC OF SOUTH AFRICA



Presentation Outline

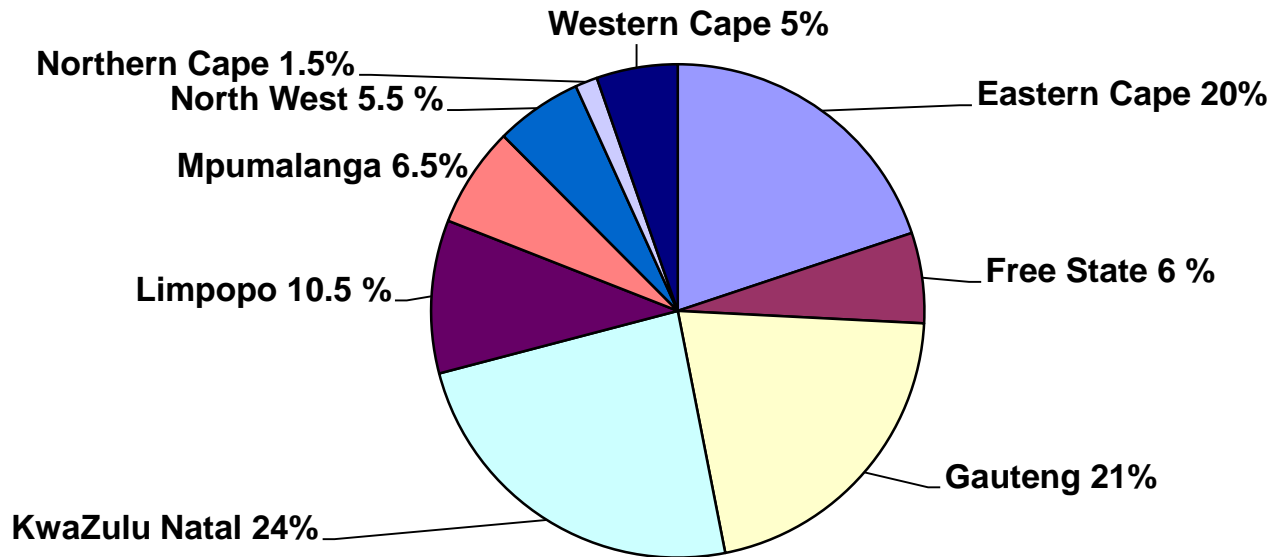
1. MISA's Core Mandate
2. Background on Mini ADAM
3. Mini ADAM Implementation and Governance Model
4. Pilot Projects and Budget Allocations
5. MISA Support to Municipalities on Electricity Distribution
6. Key Challenges
7. Future Plans

MISA's Mandate

- Supporting municipalities to conduct effective infrastructure planning to achieve sustainable service delivery;
- Supporting and assisting municipalities with the implementation of infrastructure projects as determined by the municipal integrated development plans (IDPs);
- Supporting and assisting municipalities with the operation and maintenance of municipal infrastructure;
- Building the capacity of municipalities to undertake effective planning, delivery, operations and management of municipal infrastructure; and
- Performing any function that may be deemed ancillary to those listed above.

Background to Mini ADAM: Electrification Backlogs

- The graph below depicts the backlogs on electrification as per census 2011.
- Households without electricity: ~3.3 million (Informal 1.2 mil and formal 2.1 mil)
- 75 % of backlogs are in Eskom supply area and 25% in municipalities supply area.
- The department resolved to responded to the challenges in electricity backlogs through an Approach to Asset Distribution Management (ADAM)



Background to Mini ADAM

- An Approach to Distribution Asset Management (ADAM) was initiated in 2012/13.
- It was introduced after the disbandment of Electricity Distribution Industry (EDI) restructuring process.
- Its primary aim was to address poor infrastructure maintenance and weak management capacity in electricity distribution.
- ADAM Programme was driven by the Department of Energy (DOE) in collaboration with other role-players such as MISA, SALGA, etc.
- Due to limited funding of R320m against the required budget of about R30 billion, a decision was taken to start with a pilot programme called Mini ADAM.
- Available budget for Mini ADAM was allocated to nine (9) pilot municipalities across five (5) Provinces.

Mini ADAM Implementation and Governance Model

- The main focus of Mini ADAM was on the following:
 - Assisting municipalities with technical identification of most critical challenges;
 - Development of Business Plans;
 - Engaging with consultants/contactors on work to be done; and
 - Monitoring of progress on a continuous basis
- A Steering Committee comprising representatives of NERSA, MISA, DOE, DBSA, National Treasury and ESKOM) was established as an institutional vehicle for Mini ADAM roll-out.
- The Steering Committee was supported by specialists, consultants or advisors may be depending on the need.
- The Key Role of the Steering Committee was to oversee the progress of the programme and ensure it is carried out satisfactorily.

Mini ADAM Implementation and Governance Model

- An amount of R320 million was allocated from the Multi-Year Price Determination 2 (MYPD2) for the implementation of Mini ADAM from 2013.
- Mini ADAM to be implemented in critical municipalities to test the ADAM model.
- It was envisaged that funding for later phases would be obtained from part of tariff allowance.
- Another option was to enforce ring-fencing of tariff allocation for intended purpose and to explore co-funding by municipalities from soft loans.

Phase 1	R320 million
Phase 2	± R23-30 billion
Phase 3	Continue with implementation of priority projects
Phase 4	Maintenance of backlogs based on available funding

- Due to lack of funding the programme could not proceed beyond the pilot phase.

Mini ADAM Projects and Budget Allocation

CATEGORY	MUNICIPALITY	ALLOCATIONS
EASTERN CAPE		
B-EC157	KING SABATA DALINDYEBO	60 000 000
A-NMA	NELSON MANDELA METRO	35 000 000
FREE STATE		
B-FS203	NGWATHE	20 000 000
B-FS201	MOQHAKA	20 000 000
B-FS185	NALA	20 000 000
A-MAN	MANGAUNG METRO	25 000 000
KWAZULU-NATAL		
B-KZN225	MSUNDUZI	100 000 000
NORTHERN CAPE		
B-NC091	SOL PLAATJIE	20 000 000
NORTH WEST		
B-NW402	TLOKWE	20 000 000

Support to Municipalities on Electricity Distribution

Through deployed technical professionals and contracted services MISA's support focus on:

- Preparing business plans to secure funding
- Pricing and tariff structuring.
- Conducting meter auditing and monitoring of illegal connections and guiding on smart metering systems
Development of technical standards.
- Establishing linkages & partnerships with stakeholders in the sector e.g Eskom and IPPs.
- Mentoring and transferring skills to municipal officials.
- Planning and implementing projects.
- Operation and maintenance policies and procedures.
- Guidance on best practices in electricity distribution.

Support to Municipalities on Electricity Distribution

- MISA assists municipalities to carry out their functions to improve energy service delivery. This support includes:
 - *Conducting status quo analysis on each municipality to identify key areas of support.*
- There are two sets of municipalities currently being assisted, namely:
 - *Electricity distributors (discussed in the next slide).*
 - *Non electricity distributors*
- Assistance to non-electricity distributors is mainly around the Department of Energy, INEP, funded projects - planning, implementation and reporting on the projects.

Support to Municipalities on Electricity Distribution

MISA supports electricity distributing municipalities to carry out various functions of:

1. Network Planning and compliance

- *Masterplanning (short to long-term network planning)*
- *Identifying need for upgrade, replacement and repair of infrastructure*
- *Ensuring sustainable electricity capacity in the short and long term*

2. Distribution - operation and maintenance of the network

- *Attending to major and minor faults*
- *Scheduled and reactive maintenance to the network*
- *Network safety and switching of the network*

3. Projects - municipal, INEP and other grant funded projects:

- *Project identification, planning and implementation*
- *Preparing Terms of Reference for the appointment of service providers*
- *Cost control, technical assessments, reporting and ensuring the success of the projects*

Support to Municipalities on Electricity Distribution

4. Electronics

- *Network monitoring*
- *Revenue enhancement - metering and billing support to Budget and Treasury Office.*
- *Network control room including switching instructions*
- *Operation and maintenance of traffic signals and other low voltage electronic (non-IT) infrastructure in municipalities*

5. Buildings, Street Lighting, High mast and buildings

- *Assist where required e.g checking of the design drawings and site inspections.*

Support to Municipalities on Electricity Distribution

Province	Nature of Support	Number of Municipalities	Name of Municipality
Eastern Cape	<ul style="list-style-type: none"> • Energy Masterplans and Funding Business Plan • Operation & Maintenance • Planning and implementation of projects • Provincial support to other stakeholders in the energy sector • Mentoring municipal officials and MISA appointed Young Graduates • Provincial engagements on electrification 	4	<ul style="list-style-type: none"> • Great Kei • Raymond Mhlaba • Enoch Mgijima (Business Plan only) • Amahlathi (monitoring)
Limpopo	<ul style="list-style-type: none"> • Energy Masterplans • Operation & Maintenance • Planning and implementation of projects • Mentoring of municipal officials and MISA appointed Young Graduates 	5	<ul style="list-style-type: none"> • Greater Tubatse • Elias Motswaledi • Ephraim Mohale • Lim345 • Lephalale
Free State	<ul style="list-style-type: none"> • Master plans 	1	<ul style="list-style-type: none"> • Letsemeng
Northern Cape	<ul style="list-style-type: none"> • Project Management support in the installation of High Mast Lightining 	1	<ul style="list-style-type: none"> • Siyancuma
Gauteng	<ul style="list-style-type: none"> • Substation Construction 	1	<ul style="list-style-type: none"> • Rand West City

Training of Learners in Electrical Discipline

- MISA is involved in the training of learners in electrical trades, among others, through its Technical Skills Programme.
- There are **230 learners** currently placed in various municipalities for workplace training.
- This number comprise learners receiving training through MISA's three learning programmes as depicted below:
 - Apprenticeship (Artisans Training) – **196 Apprentices**
 - Graduates Development – **12 Electrical Graduates**
 - Experiential Learnership – **22 Experiential Learners**
- A breakdown of learners in the electrical field per province is shown in the next slide.

Training of Learners in Electrical Discipline

Province	Number of Apprentices	Number of Exp Learners	Number of Young Graduates	Total
Eastern Cape	28	0	5	33
Mpumalanga	35	3	0	38
Kwa-Zulu Natal	31	0	0	31
North West	39	3	0	42
Gauteng	26	4	1	31
Western Cape	10	1	0	11
Limpopo	19	5	1	25
Free State	6	5	4	15
Northern Cape	2	1	1	4
Total	196	22	12	230

Key Challenges

1. Under-resourced electricity departments in most municipalities
 - *Shortage of qualified officials in the electricity departments for MISA to support and skills transfer.*
 - *Most ailing electricity departments do not have top and middle management in their electricity department.*
2. Limited funding to refurbish the aged and collapsing infrastructure (60+ years) in most municipal networks.
3. Failure to attract and retain electrical engineers in municipalities and to fierce competition.
4. The demand for support far exceeds the resources within MISA for master plans development and other support required.
5. Lack of electrical equipment (tools and vehicles) in some municipalities.
6. High electricity losses and billing inaccuracies/errors that adversely impact on revenue collection.
7. Inadequate municipal budgets for network maintenance and refurbishment

Future Plans

- MISA seeks to improve and expand support to municipalities around energy supply by filling 15 positions of electrical engineers on the new structure.
- The process of setting up framework contracts to enable municipalities to place orders for standard electrical equipment is under way.
- Continued engagement with municipalities to adopt functional organograms and fill approved and funded positions.
- Continued engagement to improve budgeting and funds availability to the electricity departments.
- Deployment of qualified artisans and young graduates in municipalities with capacity challenges.

Thank You