



Mahikeng Local Municipality

Municipal Energy Management System

Exchange Workshop

Cape Town

11th – 12th July 2023



with co-funding from
Swiss State Secretariat
for Economic Affairs
SECO



Municipal Overview

Location:

- Mahikeng, North West

Size of Municipal:

- 3698 Square km

Population:

- 335 253 People

Annual internal
energy consumption

- **Estimated 30 000 kWh**

Municipal Staff that
will be involved in the
MEMS Programme:

- 2 Staff members

Challenge / Success Area Title

- ❑ Developed MLM Energy Management Policy, adopted by Council
- ❑ Established EMC for the Municipality, chaired by Senior Manager – Technical & Infrastructure
- ❑ Drafted Energy Management Communication Strategy
- ❑ Identification of wrong accounts - From 90 Accounts provided by Eskom, 23 did not belong to the Mahikeng Local Municipality but neighbouring Municipalities.
 - ❑ Accounts appear to have no electricity consumption but maintenance charges are present.
 - ❑ Streetlights Accounts in rural areas which were replaced by High Masts not closed.
 - ❑ Most large power user accounts were either on high NMD and wrong Tariff.
- ❑ Office lights and other equipment were left ON beyond of working hours.

What did the municipality do

- ❑ Following the discussions with Eskom, the accounts not belonging to the MLM were closed.
- ❑ The NMD of the Civic Centre was reduced from 1,000 kVA to 315 kVA at the end of 2021.
- ❑ About 5 more accounts are with Eskom for consideration of NMD reduction and Tarriff review. Engagements are ongoing with Eskom
- ❑ Energy conservation and Energy Awareness campaigns were conducted and yielded culture change and reduction in Head Office energy consumption.
- ❑ Senior Management of the Municipality and Water & Sanitation Sub-Directorate are participating actively in the Programme
- ❑ Lobbied the Political support through Monthly Item/Report that presented to Portfolio Committee of Infrastructure

Results

Description of action	Annual saving in Rands (estimated)	Total saving over five years in Rands
Four accounts being billing to the municipality by Eskom were identified as not being for municipal facilities. Following discussion with Eskom these accounts were closed in March 2021.	Based on existing Eskom account information, one account cost the municipality R 127,538.30 per annum.	R 637,691.50
It was identified that the Notified Maximum Demand (NMD) for the Civic Centre was considerable higher than required. Following discussion with Eskom, the NMD of the Civic Centre was reduced from 1,000 kVA to 315 kVA at the end of 2021.	Using Eskom's tariff comparison tool, it is estimated that the municipality will save R 298,619.00 per annum. These savings are from three areas: Reductions in the Transmission Network Charge, the Distribution Network Charge, and the Service Charge.	R 1,493,095.00
Considerable efforts have been made with users in the Head Office Building and preliminary findings have indicated improved user behaviour in terms of switching off equipment and lights out of office hours.	At this early stage the savings achieved cannot be estimated.	

Lessons

- Know our data
- Conduct regular energy inspections & audits
- Conduct energy analysis
- Scrutinizing of Eskom account before approval for payment
- Energy Efficiency is attainable