

Municipal Energy Management Systems Training Course

“Mainstreaming energy efficiency in municipal operations”

Date: 15-18 August 2022

Time: 08h30 - 16h30

Venue: 1st Floor, UCT GSB Academic Conference Centre,
9 Portswood Road,
V&A Waterfront, Cape Town

The South African-German Energy Programme (SAGEN) which is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), in cooperation with the Department of Mineral Resources and Energy (DMRE), South African Energy Development Institute (SANEDI) and the South African Local Government Association (SALGA), introduced an initiative aimed at assisting municipalities in advancing their energy management through the development of Municipal Energy Management Systems (MEMS). Sustainable Energy Africa (SEA) with funding from GIZ-SAGEN, is providing a training to municipalities on Municipal Energy Management Systems at **no cost to the municipalities**.

Background:

Municipal Energy Management Systems (MEMS) is a systematic and continuous monitoring of municipal-own energy consumption and the institutional processes linked to enable this monitoring. Municipalities need to adapt to diminishing revenues and high electricity costs by using energy optimally. Furthermore, the new building regulations require that certain large public buildings display Energy Performance Certificates (EPCs) from December 2022 going forward. Given the imperative for municipal energy efficiency, there is an urgent need for municipalities to better manage their energy using a systematic approach which looks at energy usage in a holistic manner. Municipalities therefore require knowledge on planning for and implementing MEMS and obtaining EPCs.

Objectives of the course:

- To introduce and build the municipal capacities on managing own energy
- **Focus will be on capacitating municipalities on developing energy baselines, mapping out energy consumption in municipal facilities and buildings**
- Capacitating municipalities on the systematisation of MEMS through embedding these approaches into policies, procedures, and performance and budget systems
- Strengthen knowledge on obtaining Energy Performance Certificates (EPCs)
- Supporting the institutionalisation of MEMS by assisting with the developing action plans and capacitating participants on how to motivate for MEMS.

To develop an energy baseline, please bring the following to the course:

1. A list of facilities for those points that are supplied by the municipality
2. Billing data for these facilities - 12 months (preferably 2019-2020)
3. A list of facilities that are supplied by Eskom

4. Billing data for the Eskom facilities - 12 months (preferably 2019-2020) if you haven't received the Excel sheet already.

Programme:

The course is designed to be participatory, and activity based. In addition to technical expert input, participants will embark on activities which start to develop an energy baseline for their municipalities and a high-level set of actions for implementing MEMS in their municipalities. Technical information on efficiency in the buildings and wastewater sectors (energy intensive sectors) will be included.

Day 1: Monday, 15 August 2022 Implementing MEMS in municipalities & energy baseline development

Arrival tea at 08h00-08h30		
08h30 – 08h45	Welcome and Official opening	Silas Mulaudzi, SALGA
08h45 – 08h55	Course introduction and purpose	Simisha Pather-Elias, SEA
08h55 -09h10	Overview of SAGEN 4 and the MEMS initiative	Lucky Maduna, GIZ-SAGEN
09h10 -09h30	Municipal energy management systems (MEMS) in the global and national context	Bathandwa Vazi, SEA
09h30-10h00	Establishing a municipal energy management programme	Simisha Pather-Elias, SEA
10h00-10h15	Tea	
10h15 – 10h45	Overview of the EPC regulations and data requirements for the National Building Energy Performance Register; Overview of Energy Efficiency in Public Buildings and Infrastructure Programme (EEPPIP)	Nqobile Ngcobo, SANEDI & Luvuyo Njovane, DMRE Viaksha Mohabir, GIZ
10h45-12h30	Session 1: Energy baseline development working session: <ul style="list-style-type: none"> • Data and data management. • Introduction to the energy baseline tool 	Margaret McKenzie, Urban Earth
12h30-13h30	Lunch	
13h30-13h45	MEMS experiences and lessons learnt <ul style="list-style-type: none"> • Changing the Eskom tariff due to improved data • Behavioural changes in staff and operations 	Nolithando Nkopo, Mahikeng LM
13h45-15h15	Session 2: Energy baseline development working session: <ul style="list-style-type: none"> • Introduction of facilities datasets • Exercise on capturing facility data using the tool 	Margaret McKenzie, Urban Earth
15h15-15h30	Tea	
15h30-16h55	Session 3: Energy baseline development working session <ul style="list-style-type: none"> • Data – metered and estimations 	Margaret McKenzie, Urban Earth
16h55 - 17h00	Daily course evaluation, wrap up and closure	Silas Mulaudzi, SALGA

Day 2: Tuesday, 16 August 2022
Implementing MEMS in municipalities & energy baseline development

Arrival tea at 08h00-08h30		
08h30-08h35	Welcome and recap	Bathandwa Vazi, SEA
08h35-08h50	MEMS experiences and lessons learnt <ul style="list-style-type: none"> Data management and energy audits Municipal communication Plan 	Yolisa Majalo, Elundini LM
08h50-10h30	Session 4: Energy baseline development working session <ul style="list-style-type: none"> Tariffs and costs Data access and ownership 	Margaret McKenzie, Urban Earth
10h30-10h45	Tea	
10h45 – 11h15	Conducting simple walk-through audits of facilities (activity)	Joel Nana, SEA
11h15 - 12h30	Session 5: Energy baseline development working session <ul style="list-style-type: none"> Working with proxy data Exercise on using proxy data using the baseline tool 	Margaret McKenzie, Urban Earth
12h30 - 13h15	Lunch	
13h15 - 13h50	Developing an action plan (activity)	Simisha Pather-Elias, SEA
12h50-13h00	MEMS experiences and lessons learnt <ul style="list-style-type: none"> MEMS policy development and establishing a committee. 	City of Mbombela Municipality
14h00-15h00	Funding approaches for MEMS EEDSM programme	Bjorn Smidt-Hart
15h00 - 15h15	Tea	
15h15 –15h25	MEMS experiences and lessons learnt <ul style="list-style-type: none"> Using data to make the case for budget 	Steve Cooper, Cape Aghulus LM
15h25 –16h15	Session 6: Energy baseline development working session <ul style="list-style-type: none"> Databases, and reporting Exercise on creating and using pivot charts using the baseline tool 	Margaret McKenzie, Urban Earth
16h15 –16h30	Participant activity feedback on energy audits	
16h30 -16h35	Daily course evaluation, wrap up and closure	Simisha Pather-Elias, SEA

Day 3: Wednesday, 17 August 2022
Public Buildings and Wastewater sectors

Arrival tea at 08h00-08h30		
08h30-08h35	Welcome	Nqobile Ngcobo, SANEDI
08h35 –09h00	Participant activity feedback on energy audits	
09h00 –09h30	Private sector experience: UCT green buildings initiative	Manfred Braune, University of Cape Town
09h30 –10h00 10h00 –10h30	Using MEMS to catalyse EPCs Introduction to the EPC tool	Simisha Elias, SEA Jo Anderson, GBCSA
10h30 – 10h45	Tea	
10h45 – 10h55	City of Cape Town experience and lessons on obtaining EPCs	Rebecca Cameron, City of Cape Town
10h55 – 11h05	Ekurhuleni’s Care Centre EE and PV installation case study	Jabulile Kgomo, City of Ekurhuleni
11h05 – 12h30	Self-work on baseline tool & presentation of results	Participants
12h30 -13h00	Private sector input on EE buildings	Zoë Rushin, Old Mutual
13h00 - 14h00	Lunch	
14h00 - 15h00	Introduction to wastewater treatment plants energy audits and green drop programme	Marlene van der Merwe-Botha, Water Group
15h00 –15h10	Tea	
15h10 -16h10	Wastewater treatment plants motor replacements and maintenance	Siraj Williams, Triple Point Solutions
16h10 -16h25	Participant reflection	
16h25 – 16h30	Daily course evaluation, wrap up and closure	Simphiwe Mokonza, SANEDI & Simisha Pather-Elias (SEA)

Day 4: Thursday, 18 August 2022
Bellville wastewater plant site visit

Address: Sacks Circle Industrial, Bellville

<https://goo.gl/maps/Dx2jBFGea6y2bY8r7>

Please wear safety /closed shoes

No lunch provided

08h30 – 09h30	Pick up from Breakwater Lodge, Protea Hotel	All
09h30 – 12h30	Bellville wastewater treatment plant	City of Cape Town
12h45 – 13h30	Transfer to Cape Town airport	All
13h30 – 14h15	Transfer to Breakwater Lodge, Protea Hotel	All