



Steve Tshwete Local Municipality

An invitation to collaborate



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Steve Tshwete Municipality South Africa

AREA
3986.99 km²

POPULATION
0.23 million
(2011)

POP. ANNUAL GROWTH
4.8%

CITY BUDGET
USD 99,435,212 million
(2011)



Steve Tshwete Local Municipality is located in the Mpumalanga Province, South Africa, approximately 150 km from the country's capital, Pretoria. The municipality is named after Steve Tshwete, an ANC activist imprisoned by the apartheid authorities on Robben Island from February 1964 to 1983. This brochure tells you more about us and our experiences of participating in the Urban-LEDS project. It is an invitation to collaborate with us as we continue on this journey.

LOW CARBON VISION:

The city's vision consists of becoming the best community-driven local municipality in the world for the provision of sustainable services and developmental programs. In 2030, Steve Tshwete will be an integrated, harmonious and green locality, with an empowered, prospering community surrounded by natural and fresh air, and enjoying crystal-clear, safe and clean water.

LOW EMISSION DEVELOPMENT STRATEGY:

The Steve Tshwete Municipality used a scenario planning process to develop a strategic 2030 vision and objectives. These are currently being packaged into a Low Emission Development Position Statement: a statement of intent to local communities and business on the municipality's commitment to pursue sustainable development by 2030, while recognising that >70% of emissions in the local area come from industrial activities.

STATUS OF PROCESS:

Develop a community GHG inventory	Completed
Establish a vision	Completed
Set a target	In progress
Consult stakeholders and communities	Completed
Develop an action plan	In progress
Implement policies and actions	In progress
Track and monitor results	In progress

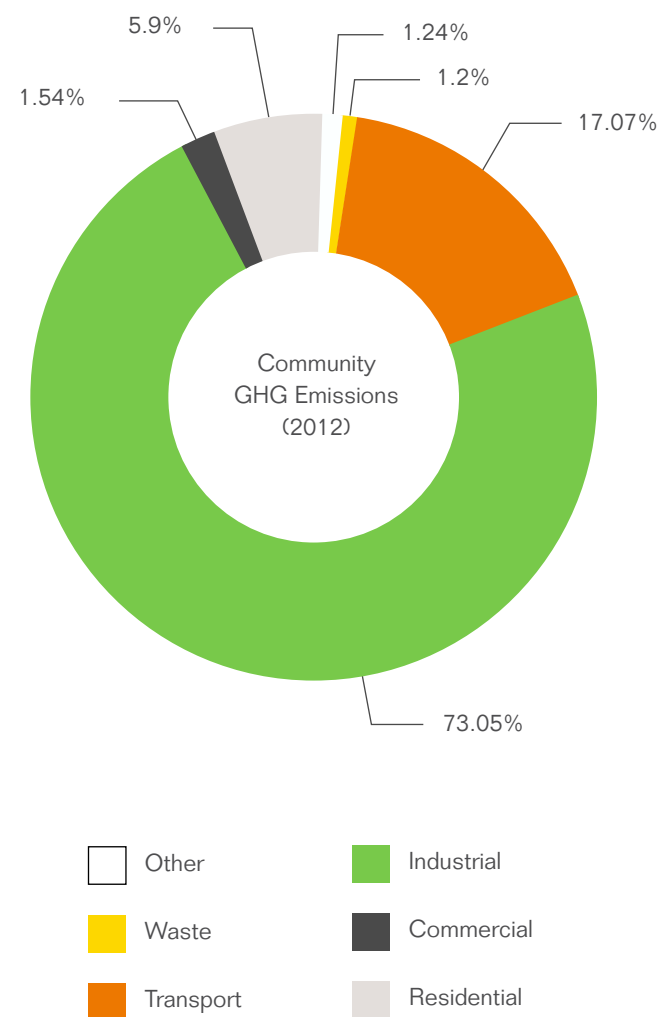
COMMUNITY GHG EMISSIONS INVENTORY:

Final energy consumption in the community:
19,810,709 GJ (2012)

GHG emissions from the community:
3,773,288 tCO₂ (2012)

Main economic activity:
Coal Mining and Manufacturing

Main priority sectors for Low Emission Development:
Energy Efficiency, Community Engagement, Integrated



LED ACTIONS ENABLED BY THE URBAN-LEDS PROJECT:

Greenhouse gas inventory conducted as baseline study using 2012 data - Completed

The aim of the inventory is to understand how much the different sectors contribute to local emissions in order to inform prioritisation and planning. Figures were included in the annual review of the statutory municipal Integrated Development Plan. The data for 2012 has been completed and an infographic has been created to communicate results to the wider community.

Participatory scenario planning process - Ongoing

This process was used for the future scenario planning to craft a 2030 vision and objective with municipal staff and stakeholders. In the course of the last year, scenarios have been created with a preferred vision and underlying objectives. The outputs are being packaged into a 2030 Low Emission Development Position Statement with accompanying flagship actions.

Municipal staff training and skills development - Completed

Municipal staff have been actively engaged in a number of capacity building opportunities, including international exchanges and study tours in Europe and Indonesia, domestic learning exchanges on green buildings with the City of Tshwane, attendance at both LOCS conferences in 2013 and 2015. Multiple staff members have also completed a professional development course on sustainable urban energy in both 2013 and 2014, and direct training from ICLEI Africa staff on GHG data collection and analysis. This has raised understanding and awareness among a large number of different municipal staff.

Green building guidelines – Completed

A brand new set of green building guidelines has been developed for Steve Tshwete with municipal and local developer involvement. The guidelines are to be used by all stakeholders to encourage greener building and spatial development practices. Dissemination is underway.

Doornkop renewable energy expo and Community Solar Solution – Completed

With the support of Urban-LEDS, the Doornkop Community installed the following solutions to equip the community centre, old age home and creche: an 18 kWp solar photovoltaic (PV) system, solar streetlights, solar water heating, LED lighting, insulation cookers (Wonderbags), mobile LED solar lights and insulating ceilings. This has galvanized significant interest and excitement politically and in the community. The showcase was preceded by a renewable energy expo to raise awareness and educate people about renewable energy options.

Mayoral leadership showcase – Ongoing

Mayor Masina has taken part in an on-going leadership mentoring programme organised through the Urban-LEDS project. This involves one-on-one mentorship calls and visits by a trained sustainability leadership facilitator, encouraging reflection on the role of the Mayor in enabling sustainable development locally. It has led to increased engagement and interest by political leadership.

"I do not have adequate words to describe how it has been working with ICLEI. We have just unveiled the Doornkop off-grid solar system, and we have seen how the community stands to benefit. If you see the infrastructure that has been installed, if you see the lights on, the refrigerator can be used...you see that this is possible. So I can describe it as a very exciting experience."

**Councillor Mike Masina,
Executive Mayor
of Steve Tshwete
Municipality**



SOLAR PV SYSTEM

We have **72** solar panels of **250 W** each, which provide a potential capacity of **18 kW**. The PV system is connected to six inverters and **32** batteries with a total storage capacity of **48 V**. The solar panels and batteries provide electricity for use at our centre.



SOLAR WATER HEATER

Using the energy from the sun, our solar water heater provides hot water to our centre. While it helps us to save on electricity, it also reduces **CO₂** emissions by **2,8 tons** per year.



SOLAR STREET LIGHT

Our solar street light has a PV panel, battery and LED lights that use the **energy of the sun** to provide us with light at night.



CEILINGS

We have installed ceilings in the crèche and old age centre because this provides **insulation** to keep our centres warmer in winter and cooler in summer.



MOBILE LED SOLAR LIGHTS

Our mobile LED solar light is an eco-friendly, energy-efficient, robust light that demonstrates the concept of solar PV. After charging it for one day we can use it for up to **48** hours. We can even use it to charge our cellphones.



INSULATION COOKER

Our 'Wonderbag' is made in Africa for Africans. It helps us with cooking in a safe and no-fuss way. It reduces energy costs and the amount of water needed for cooking. It saves **1 ton** of **CO₂** per household, per year.



COMPOST CONTAINERS

We use our counter-top compost containers in the kitchen for collecting organic waste. From fruit peels and pips, to vegetable peels, tea bags and egg shells. It all goes back into our gardens to provide **nitrogen-rich compost**.

IMPLEMENTED BY:



IN PARTNERSHIP WITH:



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