

Sustainable electricity provision at the municipal level in South Africa



The project addresses the challenges of tariff-setting to promote small-scale PV in South African municipalities. (Photos: SEA)

Background

Cities in South Africa are responsible for around 40 % of the total national power demand. Many municipalities depend on surplus revenues from electricity to subsidise their operations.

At the same time, government policy requires that they implement EE programmes and facilitate small-scale RE generation, which threatens their financial sustainability. In parallel, the high-end users who generate the greatest revenue are also the most likely to seek alternatives such as small-scale solar PV systems.

This situation threatens the ability of metropolitan authorities to deliver electricity and other services to poor populations. The challenge is therefore to develop a tariff system that can reconcile these conflicting requirements, while promoting the wide rollout of small-scale PV systems.

Project purpose

To develop business strategies with city electricity departments that ensure tariffs enabling cities to provide services, while optimising the rollout of small scale PV in a manner consistent with political priorities.



Main activities and outputs

- Review relevant national policies and plans, including the National EE Strategy, and Integrated Resource Plan (IRP) as well as local level Energy and Climate Change Strategies to ensure project activities are consistent with all of them
- Develop a spreadsheet-based model of the electricity load profile and revenue implications for at least three metropolitan areas
- Analyse impact of EE programmes and uptake of solar PV on the load profile, using real experience and recommend tariff balance to facilitate PV generation while protecting city revenue
- Hold info dissemination meeting to share lessons with other cities
- Meetings with IRP system modellers to discuss implications for 2013 national load profile projections

Expected impacts

- Model available to cities to assess load profile and revenue impact of EE and solar PV interventions
- Facilitation of uptake of small scale solar PV in a manner consistent with national and city political priorities
- Improved ability of cities to feed into national energy planning processes
- Better financial sustainability for city electricity departments
- Retained ability of municipalities to deliver services to poor households
- Enabling of national IRP modellers to better include the impact of RE and EE in 2013 load forecasts

Project Information

Location:

South Africa

Duration:

2013–2014

Sector:

Renewable Energy

Thematic focus:

Policy

Total project budget:

€ 172,180

REEEP grant:

€ 148,180

REEEP donor:

Norway

Co-funding:

€ 24,000 from Evangelischer Entwicklungsdienst (EED), City of Cape Town, eThekweni Metro, Ekurhuleni Metro, and Salga

Implementing partner:

Sustainable Energy Africa (SEA)