Viability of a national platform for the promotion of biogas projects in SA

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Background information on GIZ

- As a government-owned corporation, GIZ carries out **sustainable development projects** worldwide for the German Federal Government and other public and private-sector clients.

- GIZ operates in more than **130 countries** and employs more than 17,000 staff members.

- GIZ commenced activities in South Africa in 1994 and since then, allocated **550 million euro** to the bilateral cooperation with South Africa.

- GIZ South Africa employs around **250 staff members** of which 60% is South African.

- The main focus of our work in South Africa is on Governance and Administration, HIV/AIDS, **Energy and Climate**.
South African – German Energy Programme (SAGEN)

Component 1: Renewable Energy
Objective: The conditions for investments in RE have improved

- Sub-Component 1.1: Institutional and regulatory capacities for promotion of RE
- Sub-Component 1.2: Support to grid and system integration of RE
- Sub-Component 1.3: Technical expertise for wind and solar

Component 2: Energy Efficiency
Objective: The conditions for investments in EE have improved

- Sub-Component 2.1: Institutional capacity development for EE promotion
- Sub-Component 2.2: Implementation of innovative EE programmes
- Sub-Component 2.3: Development of a market for energy service provides
- Sub-Component 2.4: Technology dissemination and private sector cooperation
GIZ/SALGA - RE activities

RE technology support
- Waste to energy
- Solar PV
- All RE technologies

RE financial aspects
- Conduction of the feasibility studies for W2E in Pilot Municipalities
- Analysis of the business models for rooftop –PV dissemination
- Cost of Electricity Supply Study with a possible development of the Green Tariff for the NMBMM

Technical aspects of grid integration
- Baseline on the existing grid integration requirements for the municipalities
- Tariff Study on possible net-metering options
- RE integration and impacts on the municipal grid
Job creation + rural employment

Processing of raw material → Manufacturing → Installation/Plant construction → O&M

Direct jobs fuel free technology
- Engineers
- Technicians

Direct jobs fuel based technology
- Engineers
- Technicians

Cells, turbines, modules etc.
- Engineers
- Technicians

Project developers

Technicians Maintenance staff

Digesters
- Engineers
- Technicians

Project developers

Technicians Maintenance staff

Production, collection, Processing and pre-treatment of biomass

Short / medium term jobs
W2E pilot municipalities selection

1. SALGA Circular on Waste-to-Energy
2. Selection of the pilot municipalities
3. Conduction of the pre-feasibility studies
4. Selection of the municipalities eligible for the feasibility studies
5. Conduction of the feasibility studies
6. Submission of the proposal for the project implementation
Focus of the pre-feasibility study

- kind and volume of possible waste streams *available* for generating at least 1 MW of electric power
- existing and required infrastructure for biogas to electricity generation (e.g. sewage plants, anaerobic digester and distance to additional waste streams).

**Scenario 1**

- Mixture between *sewage and other external organic waste streams* (municipality as embedded generator)

**Scenario 2**

- Pure use of *agricultural waste* (farmer as embedded generator)

**Scenario 3**

- Other *sources of organic waste* (municipality and/or private sector as embedded generator)
Addressing the barriers of project implementation

- **Legal**
  - MFMA
  - NERSA e.g. obtaining of the generation license
- **Financial**
  - Applying for loan/grant funding
- **Procedural**
  - Permitting
- **Cultural**
  - Lack of awareness and acceptance
- ...

In cooperation with
The goals of the Biogas platform

• To create a national platform both from the public and private sector on the overcoming of the barriers of biogas project implementation
• To address the lessons learned from the existing projects
• To assess current and future regulatory requirements in order to make the regulations proactive and conducive for the development of the industry
• No intention to create a separate institution
• Temporary platform
The constellation of the Biogas platform

**Governmental Departments**
- DOE
- DEA
- NERSA
- the dti
- …

**Industries**
- Associations
- …

**Financing institutions**
- DBSA, IDC
- Commercial banks
- International donors
- …

**Eskom**

**Biogas platform**

**Research**
- Universities

**Provinces and local government**
- SALGA
- Provincial authorities
- Municipal representatives
- …
The role of GIZ in the Biogas platform

- **Facilitator, not a driver**
- Assistance provided in:
  - Coordination, facilitation and documentation of the platform
- **Next meeting proposal:**
  - Proposed topics
    - follow up on the Biogas conference
    - drafting of the scope of work
    - definition of roles and responsibilities
    - way forward
  - **Date:** 26.11.2013 10h00-12h00
  - **Location:** GIZ offices, Hatfield, Pretoria
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