Waste to Energy

Expected project CAPEX: 13'599'400 €
Mandating Authority: Msunduzi Municipality
Project Type: Waste to Energy

Summary
Construction of an Advanced Integrated Waste Management Plant (AIWMP) incorporating WASTE SORTING/SEPARATION (material recovery), WASTE TREATMENT (Anaerobic/Aerobic Digestion, Digestion, Bio-stabilisation, Pyrolysis), WASTE BENEFICIATION (Gas extraction, thermal and electrical power generation, composting) and Controlled Landfill Management.

Location and population
Msunduzi Municipality, South Africa
618 536 inh.

Social and environmental impact
(1) Reduced Toxicity and Greenhouse Gas emissions at landfill site
(2) Safe and clean working conditions for employees on landfill site
(3) Job Creation – 74 new jobs in the operation of the plant
(4) Economic development promoted through energy security

Main stakeholders
(1) MSUNDUZI MUNICIPALITY – Waste Management, Electricity Infrastructure, Economic Development and Environmental Affairs
(2) NATIONAL DEPARTMENT OF ENVIRONMENTAL AFFAIRS – classified project as a National Demonstrated Project
(3) DEPARTMENT OF ENERGY – potential of using Waste Material as a form of energy
**Project maturity (IFC / World Bank Categories)**

**STAGE 1: Concept Development, Site identification**

- **Expected capacity (Input-Output)**
  - 2 MW – producing 16,575,000kwh

- **Land identified**
  - YES

- **Site access:**
  - ✔ Adequate road
  - ❌ Rail access
  - ❌ Port facilities

- **Technology:**
  - Gas to Power using Biogas and Syngas produced from waste treatment, as well as waste heat producing both thermal and electrical energy

- **Waste stream data**

**STAGE 2: Pre-Feasibility Studies**

- **Pre-feasibility study:**
  - Yes - pre-feasibility study is available. Fatal Flaw EIA completed

**STAGE 3: Feasibility Studies**

- **Feasibility study:**
  - Feasibility study pending completion of permitting, EIA and contracts

**STAGE 4: Permitting / Financing / Contracts**

- **Land concession signed**
  - UNDER NEGOTIATION with Msunduzi Municipality

- **Building permits signed**
  - UNDER NEGOTIATION with Msunduzi Municipality

- **Environmental impact study**
  - NO

- **Identified sources of fundings**
  - Investor – SDB Holdings (Pty) Ltd as project developer

**STAGE 5: Engineering / Construction / Commercial Operation**

- **Engineering, Procurement and Construction Contractor**
  - SDB Waste

- **Operation and Maintenance Contractor**
  - The Advance Integrated Waste Management Plant incorporates different waste beneficiation technologies, dependent on waste streams. In the case of Msunduzi, the feasibility of Waste to Energy has been proven based on the abundance of organic fractions within the waste streams. The project forms for waste management have been completed as waste management activities is critical success factor for waste to energy. Please read this form with the waste management project form.