Hartenbos Waste Water Treatment Works Biogas to Energy Project

Expected project CAPEX: 1'424'000 €
Mandating Authority: Mossel Bay Municipality
Project Type: Biogas

Summary
The intention of this project is to convert waste to energy by utilizing biogas that could be produced at the existing Hartenbos Waste Water Treatment Works. The potential of sourcing additional organic waste material within the municipal area is also considered to increase the potential energy generating capacity of the plant, utilizing the same infrastructure.

Location and population
Hartenbos, Western Cape, South Africa
60'000 inh.

Social and environmental impact
The ability to provide base-load power to the distribution grid / High job-creation potential with linkages to sustainable rural development (usage of agricultural waste) / The possibility to use existing infrastructure (generation) and services (supply) / The potential to reduce municipal organic waste in an environmentally friendly manner

Main stakeholders
Project Owner: Mossel Bay Municipality / Consulting Engineers: Element Consulting Engineers / Process Specialists: Biogas SA & WEC Projects
The generation of electricity from Waste to Energy (WtE) and in particular biogas, was selected as a priority due to a number of comparative advantages. The Hartenbos WWTW serves a population of 60,000 people with a design capacity of 18MU / day, but currently operates at approximately 9MU / day. Hartenbos falls within a primarily residential area, but has some light industries. Hartenbos is near a number of large organic waste producing entities that could potentially produce waste suitable for anaerobic digestion, such as abattoirs and food producing companies such as Nestle.