



### Abstract

**A Portuguese start-up dedicated to the development of solutions for Sustainable Energy Systems, has developed a new technology for the treatment of organic waste in which the system is implemented on the waste generating unit therefore reducing the costs of collection and treatment. They seek partnerships with companies that need to treat large volumes of organic waste and increase their energy efficiency for commercial agreements with technical assistance.**

### Description

Biogas is a biofuel produced through the mixing of carbon dioxide and methane. Generally this production is industrially obtained with anaerobic digestion which exists on specific waste treatment units.

The Decentralized System of Biogas Production is based on a Vinyl PVC Tubular Anaerobic Digester complemented with a system which integrates thermal insulation, internal heating and a telemetry based process control to obtain higher efficiency in the reduction of the waste volatile matter. This system was designed to attend the needs of companies that breed animals by confinement or for the ones where there isn't a need to implement a centralized waste management network.

This solution enables cost reduction on the waste collection and treatment (required by law), and a decrease on the energetic costs through the replacement, for example, of GPL by biogas.

### Innovations and advantages of the offer

- The system can be implemented directly on the waste generating unit instead of using an external waste management network
- The process only requires a hydraulic retention between 10 and 50 days

- This system allows the self-generation of heat and electricity and the production of bio fertilizers
- Fulfils the AM0016 standard from UNFCCC (United Nations Framework Convention on Climate Change) related to the generation of carbon credits in CDM/JI (Clean Development Mechanism/ Joint Implementation)

### Current and Potential Domain of Application

This system was designed to attend the needs of companies that breed animals by confinement or for the ones where there isn't a need to implement a centralized waste management network.

### For further information (including IPR status)

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