

## ENERGY

technology Request

#### Technology for production of fuel and heat from biomass

#### Abstract

A large company from south Poland which deals with cultural activity, such as running a historical village, a number of exhibitions and an amusement park, is looking for a technology which would allow for the production of fuel (biogas or solid fuel)and heat from biomass. The company is interested in signing a commercial contract inclusive of technical support.

#### Description

The functioning of the enterprise is based, among other things, on activities concentrated around the maintenance of greenery on large areas (22 hectares). The type of area may be classified as partly forested, partly recreational parkland intended for the purpose. This type of activity generates large amounts of organic refuse, such as: wood from a preplanned deforestation, broken tree boughs, branches, grass and other green waste material. This waste is in no way developed and it generates costs connected with utilisation. There is a possibility of planting willow trees on part of the plot. The tree could be one of the materials used in the production of fuel. The company also possesses a complex of buildings which need heating during the winter period, so it could use biomass as a fuel for the production of heat for heating of buildings.

The technology sought envisages two options of organic wastes facilitation:

1. The possibility of biogas production. In this case, a chamber for the production of biogas would be necessary, alongside vessels for gas storage – sufficient to heat approximately 1,000 m2 of buildings – all housing workshops – and a biogas furnace.

2. The possibility of producing solid fuel – biomass blocks. In this case, the preferred technology should include the following elements: a biomass block production line, a biomass block storage facility – sufficient for the heating needs of the premises in winter. In order to burn the produced fuel, there will be a need for an appropriate furnace, which may also be equipped with a self-loading function in the form of a special loading tool.

# Technical Specifications / Specific technical requirements of the request

Both these technologies should provide for the production of fuel which could be stored for at least a few months and used for the purpose of heating company premises. The company does not specify the form of fuel, therefore the technology may be either based on solid as well as liquid fuel, including an integrated boiler room built for the purpose of using the afore-mentioned fuel.

The technology should be proven in practise and reliable.

- Advantages:
- Effective and energy-saving;
- Safe for people and for the environment;

### Valid until: 06/04/2012

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