

Biogas plant “PORGAPORCS, S.L.”

This new process has been situated in Vila-sana (Lérida, SPAIN), where the main local activity are the agriculture and farming.

The initial project aim was to turn a problem such as the manure into a market opportunity, the biogas. Different alternatives projects were studied until the project was launched.

The ECOBIOGAS plant has three mainly lines of working:
First, the reception area, where the manure and the external organic residues are received. The plant was installed in a pig farmer. The successful of the plant is thanks to the mix of manure and organic waste.

Second, the digestion area, where there are two digester and a manure sump, where the anaerobic digestion took place.

And third, the cogeneration area, with the engine, control place, evacuation of the electricity and thermal energy distribution.



Photo: ECOBIOGAS

key data

Start of Operation	2006
Type of corporation.....	limited liability company
Operator.....	Ramón Porta
Amount of gas produced	aprox 765 000 m³ per year
Cost	998 000 €

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Biogas Regions Shining Example



(with 30% of public regional subvention, 5% equity capital and 65% other raised credits)

Foreseen an extension of a cogeneration system.....**300 000 €**

Reduction of the odour charge on respect the fresh manure .. **95 times**

feedstock

Pig manure **11 500 m³** per year

Sludge from Waste treatment plant **2,500 Tn** per year

Productos alimentarios en mal estado **1,350 Tn** per year

Vegetal used oil **400 L** per year

production data

Available area for the output of the biogas fertilizer **324 ha**

(272 ha in renting, 52 ha in property)

Thermal power of the gas engine **215 kW**

Electric power of the engine..... **191 kW**

Generated thermal energy..... **1,712 Mio kWh/a**

Utilisation of heat

For keeping the temperature in the farms through radial floor. Also for plants and vegetables greenhouse.

Generated electric energy **1,528 MWh/a**

Power consumption (electricity) of the plant itself **80 MWh/a**

Annual delivery of electricity to the (regional) electric grid company **1,528 MWh/a**

Electric grid company..... **FECSA ENDESA**

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Photo: ECOBIOGAS



technical plant description

Digester 1.....	1,360 m³
Digester 2 for support.....	1,360 m³
Existing manure sump	100 m³
Mixing tank	85 m³
Digested sludge storage	3,700 m³
Gas accumulator	1,240 m³
Residence time in the digester	30 days
Temperature of the anaerobic digestion (operational)	36 °C
Average expenditure of human labour	3 hours per day

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