

## Biogas Plant PORTA



Location:	Vila-Sana, Spain
Construction Period:	2006
Input:	Pig manure, organic sludge
Fermenter:	Concrete tank, 1,360 m <sup>3</sup>
Co-generator:	Gas engine, 191 kW
Special Features:	First agricultural biogas plant in Spain
Costs:	about 650,000 €

This plant in Vila-Sana in Catalonia is the first Spanish agricultural biogas plant. It is built in an agricultural area of fruit and vegetable farming, near Barcelona in the Northeast of Spain. The biogas plant uses 30 m<sup>3</sup> per day of pig manure from the nearby piggery, co-digested with pumpable organic sludge and waste from fruit industries. The biogas plant consists of reception tanks for the manure and organic sludge, two flat cast-in-place concrete tanks with gas holder roofs as primary and secondary digester and a combined heat and power plant. The digesters operate in the mesophilic temperature range (35° C) and are each equipped with a heating system and side-mounted mixers. The gas engine is containerized. The generated electricity is exported to the national grid and receives payments according to the Spanish Renewable Energy Sources Act. The heat is used for air-conditioning of the piggery and a greenhouse. The biogas plant was financed through EU sponsorship. It is intended to install a second gas engine due to the high biogas yield.

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