



Biogas plant „Bioplinarna Farma Ihan“ Ihan - Slovenia Ltd company

On the pig farm Ihan a plant for anaerobic mesophilic purification of liquid manure has been operating since 1993. The liquid manure from the farm flows daily to the biogas plant Praja. After the liquid manure flows in from the farm it is directed to decomposition tank where it is separated into the solid and liquid fraction. The solid fraction is transported to mechanical separators which separate the solid particles. The liquid manure is pumped into four reinforced concrete digesters with the total volume of 5000 m³. In the reactors with completely stirred tank reach (CSTR) liquid manure is kept about 20 days at operating temperature from 35°C to 40°C. After the completed anaerobic purification about 70 % of the daily quantity of liquid manure is centrifuged and, prior to that, flocculant is added which binds the solid particles in the processed manure. This solid phase is qualitative organic manure which is applied on neighbouring fields.



Biogas is used for the production of electrical energy on two engines of the power of 526 kW which produce about 20000 kWh of electrical energy daily. The degree of reduction of pollution measured according to KPK reaches more than 80 %. Since the outflow after the completed anaerobic purification remains polluted with nitrogen, the biogas plant will be expanded by the system of nutrient elimination.

*Jože Jurkovič, Marko Verbič and
Simon Guštin (operators)*

“Biogas plant purifies the pig manure from the farm Ihan and reduces the pollution of the farm. At the same time, it generates heat used for anaerobic process and »green« electricity which is an important source of income. A quality organic manure of increasing value is also a product of the anaerobic process.”

supported by

Intelligent Energy Europe

The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Communities. The European Commission is not responsible for any use that may be made of the information contained therein.



Biogas Regions Shining Example



Kmetijski inštitut
Slovenije
Agricultural Institute of
Slovenia

key data

Start of Operation	1993
Type of corporation.....	Ltd company
Amount of gas produced	7000 m³ per day
Investment costs	3 000 000 €

feedstock

Liquid manure (pig).....	90 000 m³ per year
Waste from slaughterhouse industry.....	1200 tons per year

All of the feedstock is provided by the owners of the plant.

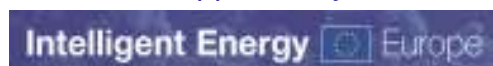
production data

Available area for the output of the biogas fertilizer	No
Thermal power rating of the gas engine	1120 kW
Generated thermal energy.....	5 475 000 kWh per year
Utilisation of heat	heating of digesters rooms of biogas plant thermal treatment
Electric power rating of the gas engine	1052 kW
Generated electric energy	4 500 000 kWh per year
Power consumption (electricity) of the plant itself	700 000 kWh per year
Annual delivery of electricity to the (regional) electric grid company	4 500 000 kWh per year
District heating network	No

technical plant description

Digester	2 x 1250 m³
Second digester	2 x 1250 m³

supported by



The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Communities. The European Commission is not responsible for any use that may be made of the information contained therein.



Biogas Regions Shining Example



Kmetijski inštitut
Slovenije
Agricultural Institute of
Slovenia

Gas storage tank	5000 m³
Residence time in the digester	18 days
Temperature of the anaerobic digestion (operational)	38,5 °C
Average expenditure of human labour	40 hours per day



For further Information, please contact:



Viktor Jejčič, Tomaž Poje
Kmetijski inštitut Slovenije
Hacquetova 17
SI – 1000 Ljubljana, Slovenia
bioplin@kis.si

FI-EKO d.o.o.
Breznikova 89
SI 1230 Domžale, Slovenia
Tel.: ++386-(0)1-7215632
www.ihan.si

This shining example information sheet was created in June 2008 © AIS - KIS

supported by



The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Communities. The European Commission is not responsible for any use that may be made of the information contained therein.