

What can I put in a digester?

Any organic material such as animal slurries, food waste and feed crops (grass, maize, cereals) can all be converted into biogas, the digested by-product (digestate) is rich in nutrients and is used as an organic fertiliser.

What can I use the gas for?

Typically biogas from small scale plants is used for combined heat and power (CHP), and for stand alone heating. It is possible to utilise biogas for cooling, and to inject biogas into the gas grid.

Who will be interested in this project?

Anyone who produces significant amounts of feedstock such as animal slurries or food waste and has medium-high energy consumptions can greatly benefit from having a small scale biogas plant to convert their waste to energy.

What can BIOGAS³ do for me?

Provide training, information, handbooks etc.. on small scale biogas production.

Introduce technology providers to farmer/food processors interested in biogas.

Conduct economic, energy and environmental feasibility studies for interested parties to see if their feedstock and site are suitable for a biogas production facility.

Encourage development of small scale biogas (<100kW) on suitable sites throughout the EU.



Partner Organisations:

AINIA, FIAB	-Spain
ACTIA, IFIP	-France
TCA, DEIAFA	-Italy
RENAC	-Germany
FUNDEKO	-Poland
JTI	-Sweden
IrBEA	-Ireland

Small Biogas plants offer the opportunity to harness the renewable energy in waste materials using technology proven for decades.

If you..... Produce suitable feedstock, Have a suitable site, Want to reduce energy bills – or be paid for energy then you may want to consider Biogas.

If you want to learn more about the project, then contact the Irish BioEnergy Association or AINIA, the project co-ordinator.



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Biogas³ is an IEE co-funded programme to promote...

- **Small Scale Biogas**
- **Using agricultural waste**
- **Using food processing waste**
- **for energy Self-Sufficiency**

www.biogas3.eu

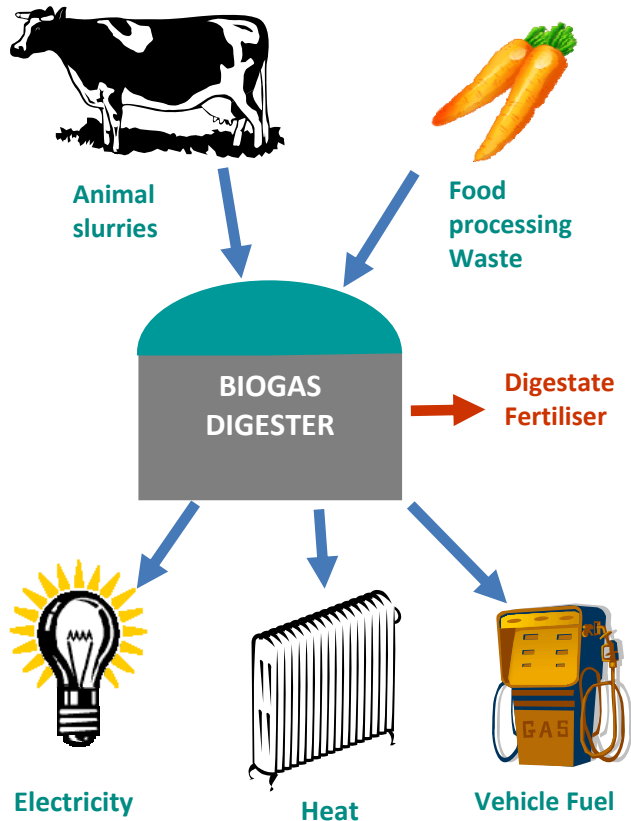
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60kWe slurry biogas plant, Hillsborough, Northern Ireland



What is Biogas?



Producing biogas from anaerobic digestion is nothing new, there are now 14,000 digesters right across the EU – however with the race to produce larger and larger plants much of the basic technological possibilities have been lost. Did you know that the first biogas plants were built on small farms to produce energy from animal slurries, and that small scale biogas can still be incorporated into farms and food businesses? With this project we aim to reinvigorate the technology around smaller digesters.

Suitable for Farming



Animal slurries are ideal for producing biogas, in the 1970's and 80's several digesters were built on farms across the EU – many of these are still in operation today providing free heat for the farmer for over 30 years! With this project we hope to relook at these low tech plants and see how they can be adopted into today's farms.

In addition to animal slurries digesters, can also convert crops such as grass, maize and cereals into biogas, these plants tend to be larger and require certain changes to farming practice (feeding digesters instead of cows).

Suitable for Food Processors



Food processors produce large quantities of byproduct that is suitable for biogas production – indeed many processors have considerable costs treating this material on site and disposing off site. By converting processing waste to biogas these costs can be reduced and/or offset through energy production.

Food processing is an energy intensive business, requiring large quantities of heat for processing and cleaning, and incorporating considerable electricity usage for process machines, refrigeration etc... By utilising waste resources on site to produce biogas, some or most of the cost of energy can be offset.