

## Information Sheet 2

### Anaerobic Digestion

Anaerobic digestion (AD) is the process whereby anaerobic bacteria break down the carbon in organic matter in the absence of air. The products of the process are a mixture of

- Biogas or landfill gas; typically around 60% Methane (CH<sub>4</sub>) and 40% Carbon dioxide (CO<sub>2</sub>)
- A solid residue (or digestate)
- Liquor.

Anaerobic digestion is well suited to organic material with a high moisture content, including food waste and agricultural slurry. The digestate can form a valuable soil improver. The new Digestate Protocol has now been drawn up, which eases many of the administrative burdens on using it as a soil improver, as it is no longer classified as a waste.

Biogas from AD can be used to provide heat by combustion in a boiler, or combined heat and power (CHP), typically by using it to run a gas engine. Electricity generated from biogas is eligible for Renewable Obligation Certificates (ROCs).



#### General information

- Anaerobic Digestion: England's Official Information Portal on Anaerobic Digestion, Run by the National Non-Food Crop Centre (NNFCC) funded by the Department of Energy and Climate Change (DECC) <http://www.biogas-info.co.uk/>
- Anaerobic Digestion Systems: Information on anaerobic digestion [www.anaerobic-digestion.com](http://www.anaerobic-digestion.com)
- AnDigestion Ltd.: A technical base for information on AD [www.andigestion.co.uk](http://www.andigestion.co.uk)
- Digestate Protocol Published by the Environment Agency - Can allow digestate not to be classified as a waste <http://www.environment-agency.gov.uk/business/topics/waste/39005.aspx>
- Methane to Markets Partnership: A partnership set up to collaborate and develop methane capture [www.methanetomarkets.org/index.htm](http://www.methanetomarkets.org/index.htm)
- National Non-Food Crops Centre: A great deal of information on AD, including reports and a cost calculator tool [www.nnfcc.co.uk](http://www.nnfcc.co.uk)
- Renewable Energy Association: Information on AD and biogas [www.r-e-a.net/biofuels/biogas/anaerobic-digestion](http://www.r-e-a.net/biofuels/biogas/anaerobic-digestion)

# Information Sheet 2

## Anaerobic Digestion

---

### Contacts

- David Collins      REA Biogas Group      [dcollins@r-e-a.net](mailto:dcollins@r-e-a.net)
- Lucy Hodsman      NNFCC      [enquiries@nnfcc.co.uk](mailto:enquiries@nnfcc.co.uk)

### Grants

- The Bio-energy Capital Grants Scheme has regular application rounds and now supports AD projects: [www.bioenergycapitalgrants.org.uk](http://www.bioenergycapitalgrants.org.uk)

### Case studies

- European Bio-CHP: Examples of AD plants in Europe  
<http://bio-chp.dk-teknik.dk/cms/site.aspx?p=1042>
- A list of AD plants in the UK: [www.anaerobic-digestion.com/html/ad\\_plants\\_in\\_the\\_uk.html](http://www.anaerobic-digestion.com/html/ad_plants_in_the_uk.html)
- Green Futures: Holsworthy Biogas Ltd, Devon  
[www.forumforthefuture.org/greenfutures/articles/60393](http://www.forumforthefuture.org/greenfutures/articles/60393)

### Publications

- IEA Bioenergy Task 37. Publication on biogas production and utilisation and a case study in Laholm, Sweden [www.iea-biogas.net/publicationspublic.htm](http://www.iea-biogas.net/publicationspublic.htm)
- Biogas from AD, BIOEXELL manual [web.sdu.dk/bio/Bioexell/Down/Bioexell\\_manual.pdf](http://web.sdu.dk/bio/Bioexell/Down/Bioexell_manual.pdf)

### Some relevant companies

- Alkane [www.alkane.co.uk](http://www.alkane.co.uk)
- Biogas Nord UK Ltd. [www.biogas-nord.com](http://www.biogas-nord.com)
- Biogen Greenfinch [www.biogen.co.uk](http://www.biogen.co.uk)
- Bioplex Ltd. [www.bioplex.co.uk](http://www.bioplex.co.uk)
- Enpure Ltd. [www.enpure.co.uk](http://www.enpure.co.uk)
- EnviTec Biogas UK Ltd. [www.envitec-biogas.com](http://www.envitec-biogas.com)
- Global Renewables [www.globalrenewables.co.uk](http://www.globalrenewables.co.uk)
- Methanogen [www.methanogen.co.uk](http://www.methanogen.co.uk)
- Monsal [www.monsal.com](http://www.monsal.com)
- MT-Energie UK Ltd. [www.mt-energie.co.uk](http://www.mt-energie.co.uk)
- Organic Power [www.organicpower.co.uk](http://www.organicpower.co.uk)
- Regreen Ltd (Agent for WELtec BioPower GmbH) [www.regreen.co.uk](http://www.regreen.co.uk)
- Renewable Zukunft [www.renewablezukunft.co.uk](http://www.renewablezukunft.co.uk)
- Rutherford Renewables [www.rutherfordrenewables.co.uk](http://www.rutherfordrenewables.co.uk)
- Summerleaze [www.summerleaze.co.uk](http://www.summerleaze.co.uk)
- Xergi [www.xergi.com](http://www.xergi.com)