

Green Energy - Anaerobic Digestion

Introduction

Anaerobic digestion (AD) is based on the premise of producing renewable energy from the capture of methane gas produced by the decomposition of manures and plant material (feedstock) under controlled conditions without the presence of oxygen. This biogas can be used to generate electricity and heat, either utilised on the holding or supplied to the national grid or another third party. The remaining organic matter ('digestate') can be used on the land as a fertiliser being rich in N, P and K or as a soil conditioner.

There are various types of feedstock which are suitable for the AD process. These include the following:

- Farm yard manure
- Animal slurry
- Grass silage
- Maize silage
- Food waste
- Household Waste

Tackling Climate Change

As a source of green energy AD has the potential to make a contribution to tackling climate change and the reduction of greenhouse gas emissions. There are a number of key targets which have been set through EU directives for the renewable energy and recycling sectors. These include the following:

- cut UK emissions by 80% by 2050
- source 15% of UK energy from renewable means by 2020
- identify 10% of UK energy used in transport from renewable sources by 2020

- cut UK biodegradable municipal waste sent to landfill to 35% of that produced in 1995

Increased development of renewable energy resources for example is vital to facilitating the delivery of the Government's commitments. Positive planning is therefore fundamental to achieving such growth.



Planning Policy

The Annex to Planning Policy Statement 1 - Planning and Climate Change and Planning Policy Statement 22 - Renewable Energy provides a useful insight into national policy.

Broadly speaking, planning guidance seeks to promote and encourage, rather than restrict, the development of renewable energy resources.

The wider environmental and economic benefits of all renewable proposals are material considerations that should be given significant weight in determining whether proposals should be granted planning consent.

Do I Need Planning Permission?

Planning consent is likely to be required for AD installations. For farm based projects using their own feedstock an application to the local planning authority is required. Those Centralised Anaerobic Digestion (CAD) proposals using organic materials from other industries e.g. food or household waste will need to apply to the waste authority at the County Council.

A detailed justification is required to support your planning application. This may include the need for specialist input relating to clean and dirty water disposal, the risk of airborne pollution, landscape impact, traffic generation and noise, for example.

Regardless of the size and nature of the proposal, consultation with the planning/waste authority and the local community is recommended at an early stage.



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Renewable Energy Feed-in-Tariffs (FiTs)

Driven by the Energy Act 2008 and which came into force in April 2010, the Government has introduced FiTs to incentivise low carbon electricity generation.

These tariffs are index-linked to the Retail Price Index (RPI) and are next reviewed in 2012. The latest tariff rates are available from the Department of Energy and Climate Change (DECC) website (www.decc.gov.uk).



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Acorus Services

Acorus consultants can advise on all planning aspects relating to various types of low carbon projects such as PV, wind and anaerobic digestion. Regardless of the scale of the project, we can assist in whatever capacity; sourcing land for clients to rent or purchase, agreeing heads of terms, liaising with the local planning authority and facilitating your planning application. Please contact us to discuss your proposals further.



James Whilding MRICS MBIAC
01626 892638
james.whilding@acorus.co.uk



David Ellis MBIAC
01954 268283
david.ellis@acorus.co.uk

PLANNING CONSULTANCY • ARCHITECTURAL SERVICES • PROJECT MANAGEMENT • PROPERTY SALES

SOUTH & EAST

Old Market Office
10 Risbygate Street
Bury St Edmunds
IP33 3AA
T: 01284 753 271

MIDLANDS

Woodthorne
Wergs Road
Wolverhampton
WV6 8TQ
T: 01902 693 213

SOUTH WEST

Mamhead Castle
Mamhead
Exeter
EX6 8HD
T: 01626 892 638

NORTH

Paddock House
Elder Road
Northallerton, North Yorkshire
DL6 1NH
T: 01609 773 206