

# IEA Bioenergy Task 37

## UK Country Report

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# Numbers of biogas plants

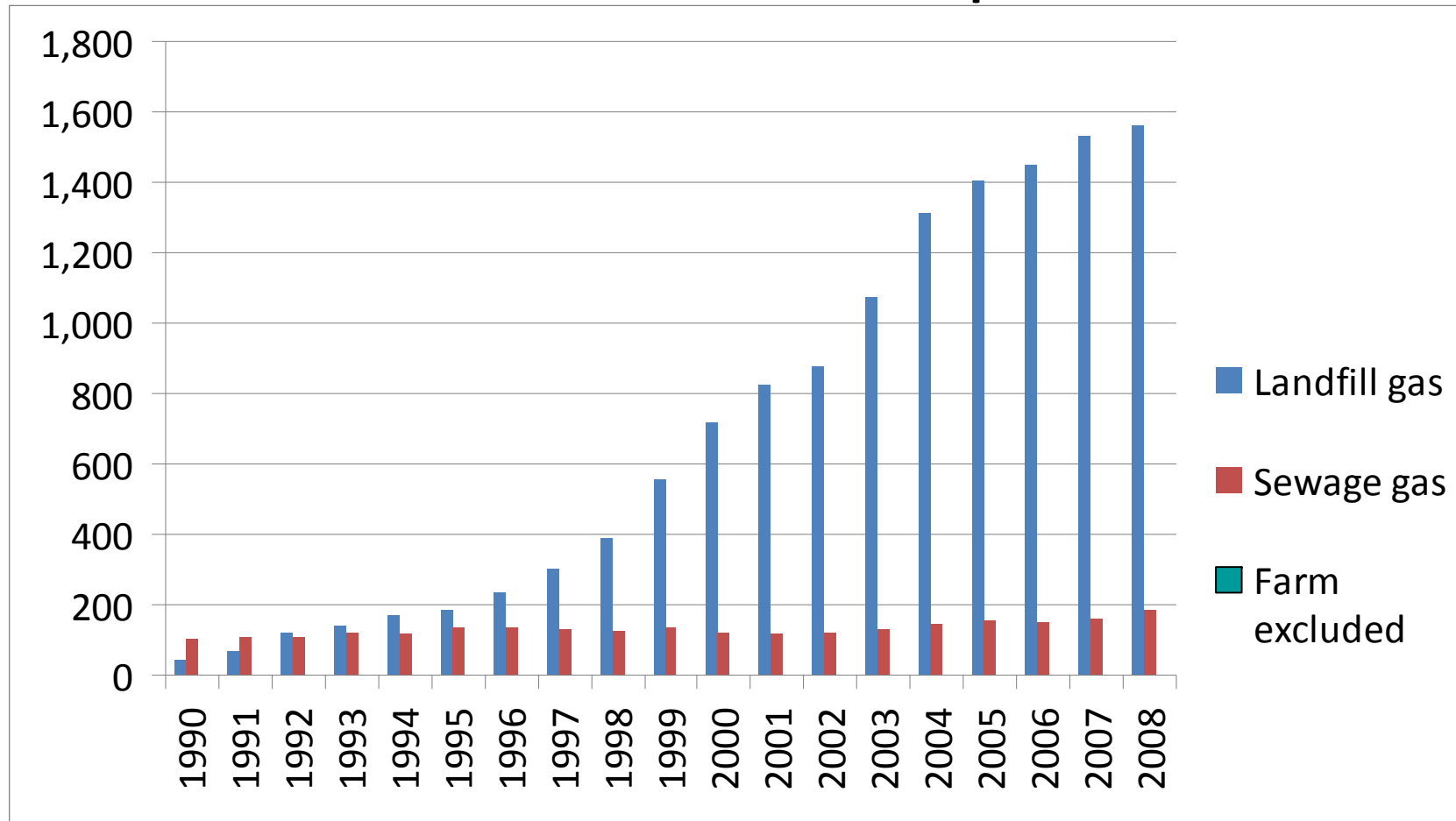
(as far as it is known)

<b>Location</b>	<b>No. of plants</b>
<b>Farm (slurry and co-digestion with maize, etc &amp; food waste</b>	<b>39</b>
<b>Industrial (breweries, vegetable packers, ice cream, etc)</b>	<b>18</b>
<b>Waste Water Treatment</b>	<b>220</b>
<b>Local authority/waste management companies MBT</b>	<b>6</b>

Compiled from data provided by plant owners and industry

# Energy generated from biogas

Thousand tonnes of oil equivalent

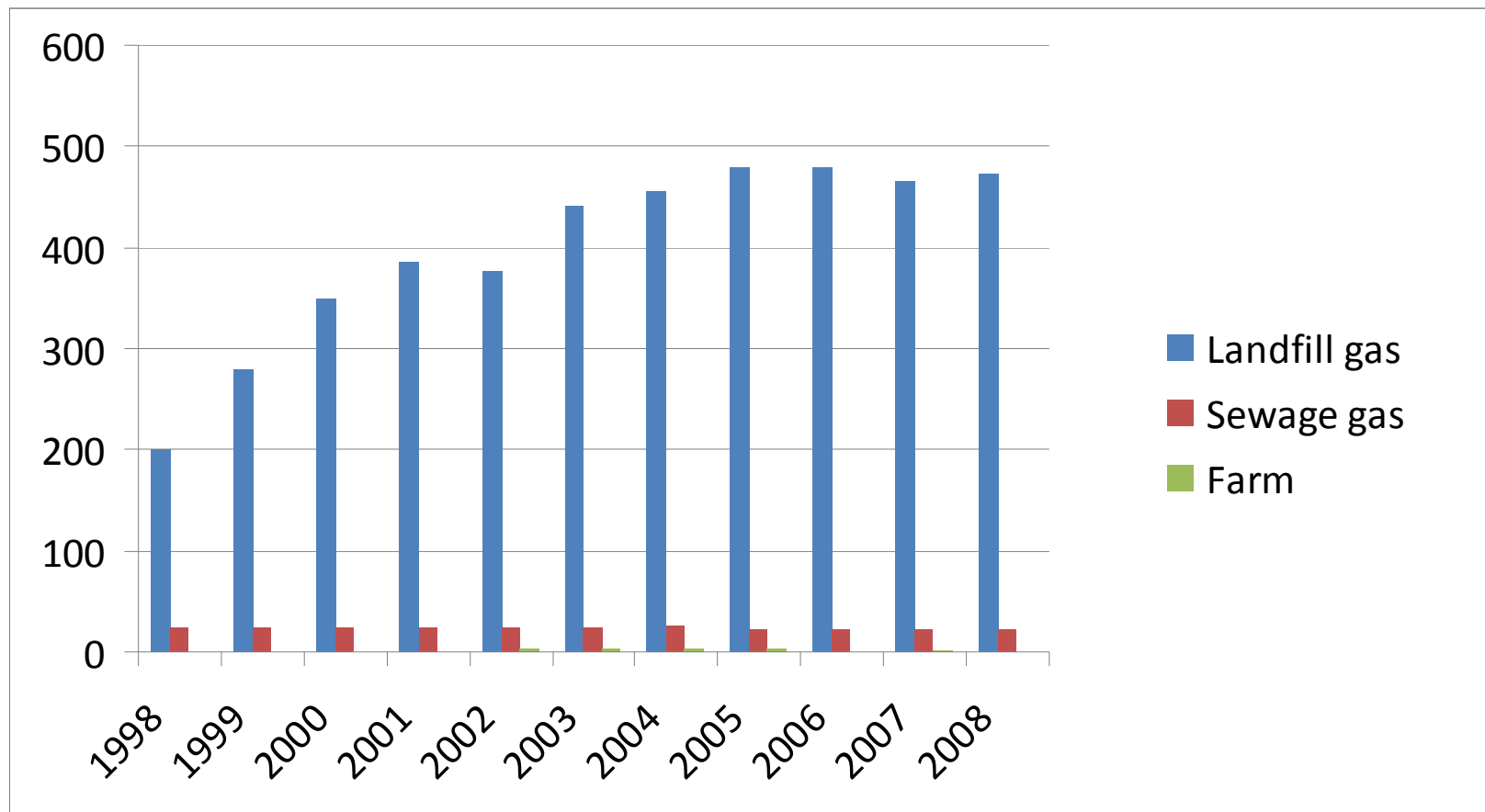


Source: BERR ( 2009) Digest of Energy Statistics

# Number of plants built under the Non Fossil Fuel Obligation (NFFO)

Why is NFFO included – ROCs came into force in 2002!

Also this chart only refers to one plant - Holsworthy. Suggest you leave this slide out and concentrate on “installation of current operating capacity slide”

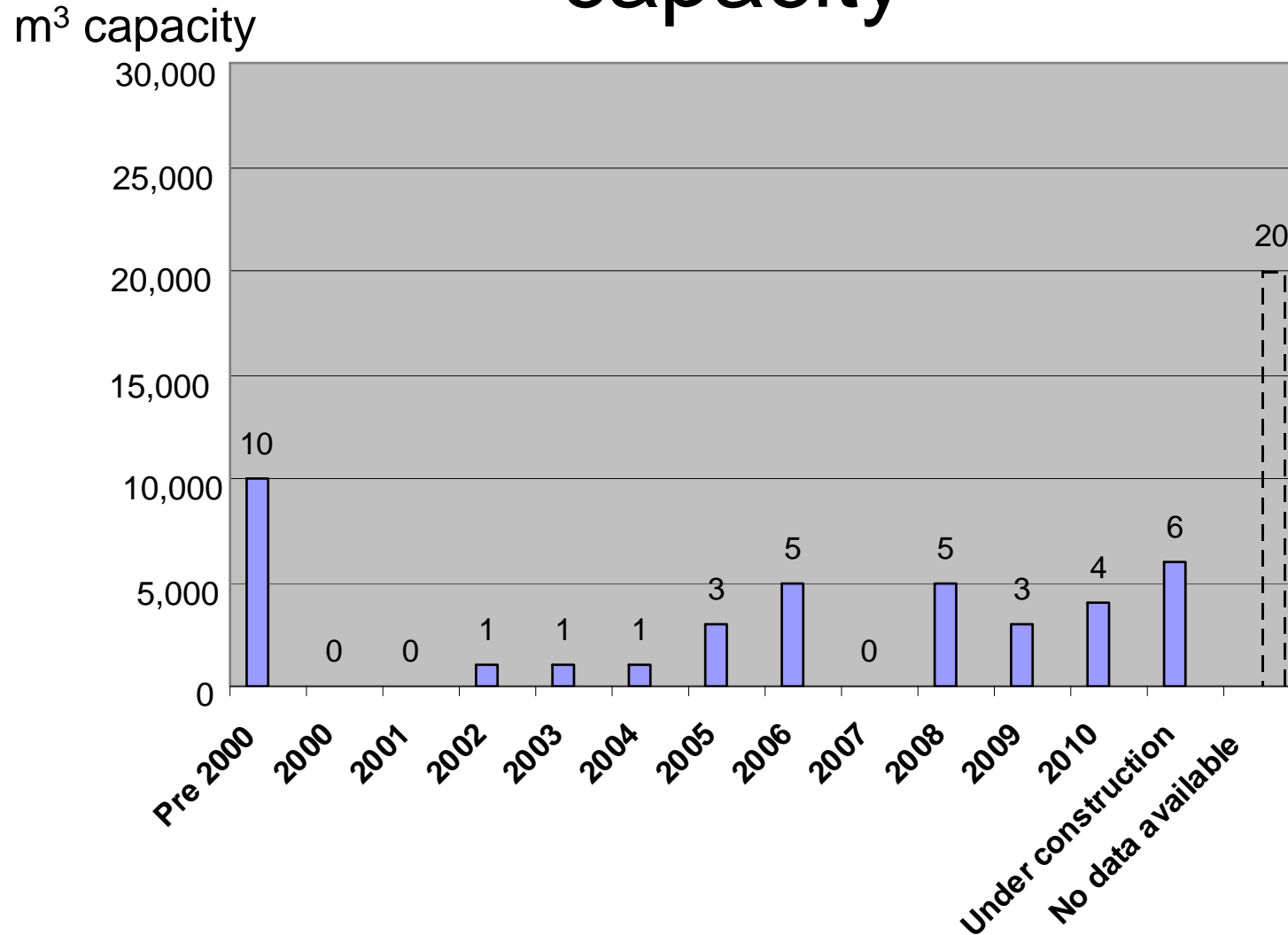


Compiled from BERR op.cit

# Biogas upgrading Plants

- 2008 Gasrec 500 t/pa from landfill gas for vehicle fuel – pilot schemes with local authorities and surplus exported to Norway
- 2009 Adnam's Brewery (Suffolk) biogas produced from brewery waste and restaurant food -approx. 100m<sup>3</sup> /hr for grid injection and electricity production
- 2010 (under development) Government Demonstration Project, Davyhulme (Manchester 250 m<sup>3</sup> /hr) for vehicle fuel and grid injection
- April 11<sup>th</sup> 2010 British Gas and Centrica confirmed plans for 5 plants first of which to upgrade sewage gas for grid injection (instead of flaring) expects to inject into the grid by Spring 2011

# Installation of current operating capacity



Farm based plants only (data provided by farmers and companies)

## Economic supports –market mechanisms

- **Renewable Obligation Certificates (ROCS)**  
(currently paying 4.8p/kWhr x 2 for AD)
- **Feed –in -Tariffs** for electricity/CHP as from April 2010  
(11.5p/kWh <500kW, 9p/kWh >500kW–5 MW)
- **Renewable Heat Incentive** (from April 2011)-  
under consultation but looks generous
- **Renewable Transport Fuel Obligation**  
Certificates (currently worth 11.15p/litre)

# Economic supports -Capital grants

- Waste Recycling Action Programme (WRAP) Organics Capital Grant Scheme
- Bioenergy Capital Grant Scheme
- Rural Development Programme for England (RDPE)
- AD implementation plan 2010
  - £10 million programme of demonstration sites across England
  - New research unit to test out the latest technology
- Northern Ireland – DARD biomass capital grant scheme to include AD - soon



# AD Implementation Plan published March 2010

## **Objectives:**

- Accelerate uptake of Anaerobic Digestion in England
- Create the economic framework and regulatory structure
- Build capacity
- Research to improve understanding
- Share global experience
- Assess progress

# Improving understanding national projects

- 2010 start -The AD Development Centre
- 15 reports including due for publication 2010 :
  - Nutrient and carbon flows, optimising process for the stabilisation of food waste, emissions
  - Potential for farm scale AD & contribution to rural economy
  - Review of AD technology
- European experience with small scale AD

# Information Portal on AD

Defra in conjunction with Department of Energy and Climate Change (DECC) launched England's Official Information Portal on Anaerobic Digestion on 16 September 2009. The site acts as a gateway to all the AD information available on one website. It is being administered National Non Food Crops Centre (NNFCC).

The new AD Portal, [www.biogas-info.co.uk](http://www.biogas-info.co.uk), brings together access to the essential introductory information as well as details of where to find specialist advice.

First stakeholder meeting 27 October to review the portal in its first stage. A follow up meeting January 2010.



# Sharing global experience

- Methane to Markets Partnership- 30 countries members including Russia, China, USA and India
- IEA Bioenergy Task 37
- UK-China Sustainable Agriculture Innovation Network

# Biofertiliser Certification Scheme

developed and to be administered by Renewable Energy Assurance Ltd (REAL) wholly owned by the Renewable Energy Association

contract with two certifying bodies ready:

- Organic Farmers and Growers
- Scottish Farm Quality Certification

series of logos provided for the quality marque

- **BIOFERTILISER**

# Regulations for farmers

Keep to tradition –use manure, apply according to Code of Good Agricultural practice and NVZ regulation with no AD –simple and easy

Exemption from waste regulations for AD if **own** farm manure and crops for **own** farm use applied for agricultural benefit in accordance with COGAP etc

In any other case requires full waste permit and transfer approval unless

D plant registered and compliant with “Biofertiliser Certification Scheme” – in which case digestate is no

# Spreading “waste”

Unless exempt or treated to become biofertiliser  
all digestate is a waste.

Producers must only transport with waste carrier  
licenses

Must only be spread subject to site licenses which  
are limited to 50ha blocks.

Environment Agency charges fees and imposes  
delays when issuing spreading licences

# Organisations supporting the UK membership of the IEA

**Sponsors:** *Agri-food and Biosciences Research Institute (Northern Ireland), Biogen (UK) Ltd, Biffa Waste Services Ltd, Biogas Nord UK Ltd, Biogengreenfinch, Bioplex Technologies Ltd, Chesterfield Biogas Ltd, CNG Services, Country Land and Business Association, Renewables East, Greenfinch Ltd, Hardstaff Group, National Grid, Omex Environmental Ltd, Organic Power Ltd, Permastore Ltd, Peter Jones OBE, Royal Institution of Chartered Surveyors, AnDigestion Ltd, Sustraco Ltd, The Anderson Centre, University of Southampton, Veolia Environmental Services (UK) Ltd,, Xergi A/S,*

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