

Anaerobic Digestion: the UK Policy Framework

Jeremy Eppel

**Deputy Director, Farming for the
Future Programme, Defra**

Benefits of Anaerobic Digestion

Climate Change

- Source of distributed renewable energy
- Reduces methane emissions from landfill and manure management
- If digestate used as fertiliser, reduces need for inorganic fertiliser and so reduces energy use and carbon emissions

Economic

- Contributes to low carbon economy and viable, diversified rural business sector; opportunities for UK technology companies

Other Environmental

- Reduces inorganic waste going to landfill
- Improves air and water quality

UK Government Strategy

- **Strong Government commitment set out in May 2007 in**
 - **UK Biomass Strategy**
 - **Waste Strategy for England**
 - **Energy White Paper**
- **Being further developed in**
 - **UK Renewable Energy Strategy**
 - **Heat Call for Evidence**

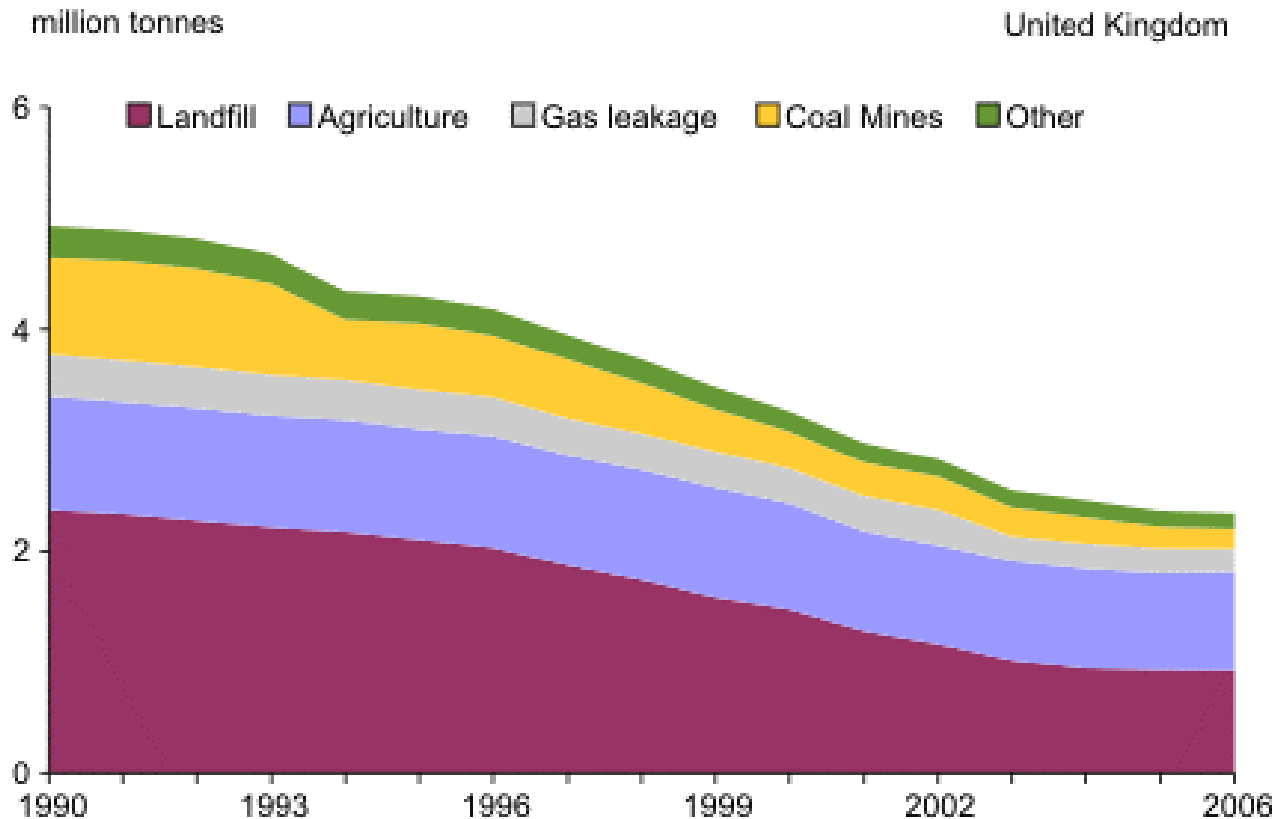
Potential of Anaerobic Digestion in UK

Theoretical potential:	10-12 TWhe&h
Carbon savings: (including avoided landfill)	6.1-6.9 MtCO₂e

(Source: UK Biomass Strategy, Annexes A & B, combined figure for 'wet' materials, sewage sludge and poultry waste.)

UK Methane Emissions

Methane emissions by source: 1990-2006



Data source: AEA Energy & Environment

International Leadership

- **International Fora**
 - International Energy Agency's (IEA) Bioenergy Task 37
 - European Biogas Initiative
 - Methane to Markets Partnership
- **Bilateral Cooperation**
 - UK-Germany Experts' Seminar on Agriculture and Climate Change, Feb 2008
 - UK-China Sustainable Development Dialogue

Methane to Markets Partnership

- **International partnership:**
 - Advances methane recovery and use as energy to reduce global methane emissions
- **Focuses on:**
 - Agriculture
 - Coal mines
 - Landfills
 - Oil and gas systems

Government Action

- **Addressing barriers in three areas:**
 - **Economic**
 - **Awareness**
 - **Technological**
- **Underpinned by comprehensive stakeholder engagement**
- **Coordinated by cross-Defra Anaerobic Digestion Project**

Government Action: getting the economics right

Market

- 'Banded' ROCs (2 ROCs/MWh)
- Standard and protocol for digestate

Infrastructure

- Bio-energy Capital Grants Scheme
- Axis 1 of Rural Development Programme for England 2007-2013 (RDPE)

Government Action: Demonstrating Benefits

- **Anaerobic Digestion Demonstration Programme announced by Hilary Benn on 18 February 2008**
- **£10M available from Environmental Transformation Fund (ETF) towards construction of new demo plants**
 - operating in different sectors and
 - with different feedstocks
- **Will demonstrate benefits of anaerobic digestion to potential developers and customers**

Government Action: Awareness and Understanding

- **Will work with advice providers and their audiences to coordinate advice:**
 - For each stakeholder group
 - On different issues

Government Action: Working in Partnership

Defra Ministers to convene high level stakeholder meeting which will:

- Bring together stakeholders from all the relevant sectors**
- Discuss how we can work together to make best use of anaerobic digestion**
- Identify specific issues for early attention through a process of ongoing collaboration**

- **For more information:**
 - <http://www.defra.gov.uk/farm/environment/climate-change/anaerobic-workshop/index.htm>