Task 37
Energy from Biogas
An Overview
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Biomass Resources
- Conventional forestry
- Short rotation forestry
- Agricultural crops and residues
- Oil-bearing plants
- Municipal solid waste
- Industrial waste

Supply Systems
- Harvesting, collection, handling and storage

Conversion
- Biochemical
- Thermochemical
- Physical/Chemical processes

End Products
- Transportation fuels
- Heat
- Electricity
- Solid fuels

Integrating research themes across the value chain: environmental and economic sustainability, system studies, fuel standards, greenhouse gas balances, barriers to deployment, management decision support systems

www.ieabioenergy.com
IEA Bioenergy presently comprises 12 Tasks

Task 29: Socio-Economic Drivers in Implementing Bioenergy Projects
Task 32: Biomass Combustion and Co-Firing
Task 33: Thermal Gasification of Biomass
Task 34: Pyrolysis of Biomass
Task 36: Integrating Energy Recovery into Solid Waste Management
Task 37: Energy from Biogas
Task 38: Greenhouse Gas Balances of Biomass and Bioenergy Systems
Task 39: Commercialising Liquid Bio-Fuels from Biomass
Task 40: Sustainable International Bioenergy Trade – Securing Supply and Demand
Task 41: Joint Project with the Advanced Motor Fuels Implementing Agreement
Task 42: Biorefineries: Co-Production of Fuels, Chemical, Power and Materials from Biomass
Task 43: Biomass Feedstocks for Energy Markets
Member countries participating in Task 37: Energy from Biogas

Austria  Bernard Drosg / Günther Bochmann
Brazil    Guilherme Fleury Soares
Canada   Andrew McFarlan
Denmark  Teodorita Al-Seadi
European Commission  David Baxter (Task Leader)
Finland  Jukka Rintala / Annimari Lehtomaki
France  Olivier Théobald / Guillaume Bastide
Germany  Bernd Linke
Ireland  Jerry Murphy
Netherlands  Mathieu Dumont
Norway  Espen Govasmark
Sweden  Anneli Petersson
Switzerland  Nathalie Bachmann
Turkey  Selman Cagman / Volkan Çoban
United Kingdom  Clare Lukehurst
Objectives

Technical

collection, verification, exchange and dissemination of information, promotion of new and improved technologies and products, stimulating interaction between industry, policy makers and research

Support to Policy Makers

assistance to local and national governments to understand biogas technologies and products and to adopt appropriate industry best practices and standards
Scope of Biogas Systems

- Agricultural slurries, residues, energy crops (mono-digestion or co-digestion)
- Organic fraction of municipal solid waste biowaste
- Waste water treatment/sewage sludge
- Electricity generation/CHP
- Up-grading - Injection in grid/compression for vehicle fuel
Key Issues

Sustainability

energy and cost balances for farm and non-farm biogas process pathways, emissions related to substrates, gas production, up-grading for direct energy production, heat and electricity, or injection into the natural gas grid

Quality

expert support to standards process; main focus on pipeline injection (CEN) and digestate use as bio-fertiliser
Task 37
Work Programme 2010-2012
Topics

Technical and Policy Support:

1. Substrates for biogas production
2. Optimisation of digestion processes
3. Biogas up-grading and pipeline injection
4. Digestate processing and quality
5. Emissions from biogas installations
Publications

Biogas from Energy Crop Digestion
Rudolf BRAUN
Peter WELAND
Arthur WELLINGER

Biogas upgrading technologies — developments and innovations
Annika PETERSSON
Arthur WELLINGER

Utilisation of digestate from biogas plants as biofertiliser
Clara T. LUKEHURST
Peter PROBST
Teodorica AL SEADI

ANIMAL BY-PRODUCTS AND ANAEROBIC DIGESTION
Requirements of the European Regulation (EC) No 1774/2002
SEPTEMBER 2003

Web Address: www.iea-biogas.net
Work in progress

1. Extension of energy crop report to include additional feedstocks (detailed description of grass digestion)
2. Pre-treatments of feedstocks, including lignocellulosic biomass
3. AD process monitoring techniques
4. Economics of small-scale biogas production
5. Digestate quality management
6. Standards for biogas up-grading/Success Stories
7. Emissions monitoring and control
8. Dissemination through contacts with local/national authorities and industry
All input welcome

All opportunities for dissemination welcome

Thank you for your attention

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