

IEA Bioenergy Task 37- Energy from Biogas





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Task 37 - Mitgliedsländer






IEA Bioenergy

 Australia
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 Austria
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 Denmark
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Vertreter Österreichs:

Günther Bochmann
Bernhard Drosig

Meeting Schweden – April 2015



IEA Bioenergy



Meeting Deutschland – Oktober 2015



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Exploring the viability of small scale anaerobic digesters in livestock farming

Clare Lukehurst
Angela Bywater

SUMMARY

This report explores the viability of small scale anaerobic digestion for livestock farming where there is a need to deal with animal manure and slurry in a manner that minimises the emission of greenhouse gases. Dairy farming for example is dominated by small herds of animals, the slurry from which must be managed efficiently for the farm and to maintain high standards of health in a cost effective manner. AD is an acknowledged technology for farming operations that affords a high standard of manure management, the production of high quality biofertiliser and also the possibility of generating energy for own use as well as export.

The report is aimed at energy policy and decision makers as well as WWTP operators and was produced by IEA Bioenergy Task 37, an expert working group that addresses challenges related to the economic and environmental sustainability of biogas production and utilisation.



<http://www.iea-biogas.net/technical-brochures.html>

Sustainable biogas production in municipal wastewater treatment plants

Nathalie Bachmann

SUMMARY

This report deals with anaerobic digestion (AD) of sewage sludge, an energy- and nutrient-rich by-product of wastewater treatment plants (WWTP). The objective is to promote sustainable practices and technology, focussing on energy efficiency of biogas production and utilisation. An overview of the AD process in WWTP is given, along with standard energy performances, nutrient recycling and different process options and their impacts. It is not intended as a detailed technical guideline for project management.

The report is aimed at energy policy and decision makers as well as WWTP operators and was produced by IEA Bioenergy Task 37, an expert working group that addresses challenges related to the economic and environmental sustainability of biogas production and utilisation.



<http://www.iea-biogas.net/technical-brochures.html>

A perspective on algal biogas

Jerry D MURPHY
Bernhard DROSG
Eoin ALLEN
Jacqueline JERNEY
Ao XIA
Christiane HERRMANN

SUMMARY

Algae are suggested as a biomass source with significant growth rates, which may be cultivated in the ocean (seaweed) or on marginal land (microalgae). Biogas is suggested as a beneficial route to sustainable energy; however the scientific literature on algal biogas is relatively sparse. This report comprises a review of the literature and provides a state of the art in algal biogas and is aimed at an audience of academics and energy policy makers. It was produced by IEA Bioenergy Task 37 which addresses the challenges related to the economic and environmental sustainability of biogas production and utilisation.



Nutrient Recovery by Biogas Digestate Processing

Bernhard Drosig
Werner Fuchs
Teodorita Al Seadi
Michael Madsen
Bernd Linke

SUMMARY

This report reviews various approaches for processing of biogas plant digestate for the purpose of nutrient recovery. It covers both established and emerging technologies and assesses technical performance and where possible economics. Techniques for nutrient recovery from digestate are developing rapidly and aim to improve nutrient management in agriculture and in waste treatment systems.

The report is aimed at biogas plant developers and operators as well as agriculture policy makers and was produced by IEA Bioenergy Task 37. IEA Bioenergy Task 37 addresses challenges related to the economic and environmental sustainability of biogas production and utilisation.



A perspective on the potential role of biogas in smart energy grids

Tobias PERSSON, Jerry MURPHY,
Anna-Karin JANNASCH, Eoin AHERN,
Jan LIEBETRAU, Marcus TROMMLER,
Jeferson TOYAMA

SUMMARY

This report documents the potential role of biogas in smart energy grids. Biogas systems can facilitate increased proportions of variable renewable electricity on the electricity grid through use of two different technologies:

- Demand driven biogas systems which increase production of electricity from biogas facilities at times of high demand for electricity, or store biogas temporarily at times of low electricity demand.
- Power to gas systems when demand for electricity is less than supply of electricity to the electricity grid, allowing conversion of surplus electricity to gas.

The report is aimed at an audience of energy developers, energy policy makers and academics and was produced by IEA Bioenergy Task 37. Task 37 is a part of IEA Bioenergy, which is one of the 42 Implementing Agreements within IEA. IEA Bioenergy Task 37 addresses the challenges related to the economic and environmental sustainability of biogas production and utilisation.



Neue „Case studies“ in 2014



IEA Bioenergy



<http://www.iea-biogas.net/case-studies.html>

Workshops



IEA Bioenergy

- IEA Bioenergy 2015 Conference – Biogas Session (Berlin, Deutschland) (Vortrag Drosig)
- IBBA Workshop 2015 (Malmö, Schweden) (Key-Note Bochmann)
- IEA Session at GGROS 2015 (Örnsköldsvik, Schweden) (Vortrag Drosig)

Ausblick Broschüren



IEA Bioenergy

- Food Waste Digestion Systems
- Grid injection and greening of the gas grid
- International approaches to sustainable anaerobic digestion
- The role of anaerobic digestion and biogas in the circular economy
- Best practice Guidelines for Biogas Industry

- Joint Studies mit Task 38, 39, 43
- Zusammenarbeit mit Task 40

Fahrplan 2016



IEA Bioenergy

- Task Meeting 13-15 April Wallingford/England
- Workshop
 - Prozessoptimierung
 - Biogaskleinanlagen
 - Rolle der IEA

Aktivitäten zur Dissemination



IEA Bioenergy

- Newsletter (<http://www.iea-biogas.net/newsletter.html>)
- Nachhaltig Wirtschaften
(<http://www.nachhaltigwirtschaften.at/iea/results.html/id1979>)
- 10 laufende Biogas-Forschungsprojekte am IFA-Tulln
- Nationale und internationale Netzwerke
- Mitveranstalter von Konferenzen und Workshops
- ADA Projekt mit Brasilien

Aktueller Stand Branche



IEA Bioenergy

- Konsolidierung der Branche in Österreich
- Seit 2015 starke Konsolidierung der Branche in Deutschland
- Starker Zubau in Frankreich
- Wachstum in UK
- Starkes Wachstum in Brasilien

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University of Natural Resources and Applied Life Sciences, Vienna
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Institute for Environmental Biotechnology**

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