



#### Sustainable Energy Authority of Ireland

International Energy Agency (IEA) Bioenergy Task 37 "Energy from Biogas"

# SYMPOSIUM & WORKSHOP

## Anaerobic Digestion in the Circular Economy



Please register by Friday 24 August Click here to register

## **Prof Jerry D. Murphy Invites**

The International Energy Agency Bioenergy Task "Energy from Biogas" will present their recently published reports in a symposium in UCC on September 6th. International experts will present on topics such as: Integrated biogas systems; Anaerobic digestion in the circular economy; Food Waste Digestion Systems; Fugitive Methane Emissions from Biogas Facilities; Greening the Gas Grid. The symposium will include for a workshop on applications of green gas to Ireland as exemplified by the Gas Networks Ireland Causeway Project.

## Location

Western Gateway Building, UCC, Ireland

## Date

Thursday, 6th September 2018

Time

09:30 - 17:00







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#### Sustainable Energy Authority of Ireland

International Energy Agency (IEA) Bioenergy Task 37 "Energy from Biogas"

# Symposium & Workshop Agenda

Anaerobic Digestion in the Circular Economy

Location:Western Gateway Building, University College Cork, IrelandDate:Thursday 6 September 2018



Please register by Friday 24 August Click here to register

| 09:30 | Registration   |
|-------|--|
| 09:50 | Welcome to UCC from Brian Ó Gallachóir,<br>Chair of Energy Engineering, UCC, Chair of<br>IEA ETSAP, Director of MaREI Centre |
| 09:55 | Welcome from Jim Gannon, Director of SEAI  |











IEA Bioenergy

Anaerobic Digestion in the Circular Economy

### Session 1: Anaerobic digestion in the circular economy

| Chair of Session | Matthew Clancy, Sustainable Energy<br>Authority of Ireland (SEAI) and Operating<br>Agent Task IEA Bioenergy Task 37   |
|------------------|---|
| 10:00 - 10:05    | Introduction from Chair   |
| 10:05 - 10:15    | Introduction to IEA Bioenergy Task 37,<br>Jerry Murphy, Director SFI MaREI Centre/<br>Chair of Civil Engineering & IEA Bioenergy<br>Leader Task 37  |
| 10:15 - 10:30    | Local applications of anaerobic digestion<br>towards integrated sustainable solutions,<br>Bernadette McCabe, University of Southern,<br>Queensland  |
| 10:30 - 10:45    | The role of anaerobic digestion in the circular economy, Anton Fagerström, Energiforsk, Sweden  |
| 10:45 - 11:00    | The biggest renewable energy generator in<br>the world combining micro-grid with biogas<br>and solar to foster sustainable development<br>Jorge Callado, Itaipu Technology Park (PIT)<br>Director, Brazil |
| 11:00 - 11:15    | Coffee / Group Photo  |
|                  |   |



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1aREI

Centre for Marine and Renewable Energy Environmental Research Institute





IEA Bioenergy

Anaerobic Digestion in the Circular Economy

Session 2: Technical aspects of biogas systems

| Chair of Session | Phil Hemmingway, Sustainable Energy<br>Authority of Ireland (SEAI)  |
|------------------|---|
| 11:15 - 11:20    | Introduction from Chair   |
| 11:20 - 11:35    | Food Waste Digestion Systems<br>Charles Banks, University of Southampton  |
| 11:35 - 11:50    | Application of BMP Assays<br>Günther Bochmann, IFA-Tulln BOKU -<br>University of Natural Resources and Life<br>Science, Vienna Institute for Environmental<br>Biotechnology   |
| 11:50 - 12:05    | Fugitive Methane Emissions from Biogas<br>Facilities<br>Jan Liebetrau, Head of Department for<br>Biochemical Conversion and Head of Work<br>group for Process Biology at Deutsches<br>Biomasse Forschungs Zentrum<br>gemeinnützige Gmb (DBFZ) |
| 12:05 - 12:35    | Flash presentations on Renewable Gas<br>Research  |
| 12:35 - 13:00    | Panel discussion led by John Muldowney,<br>Department of Agriculture, Food and Marine<br>(DAFM)   |
|                  |   |

13:00 - 14:00







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Anaerobic Digestion in the Circular Economy

Session 3: Policy aspects of greening the gas grid | The Causeway Project

| Chair of Session | Kevin Brady<br>Department of Communications, Climate<br>Action and Environment (DCCAE)   |
|------------------|--|
| 14:00 - 14:05    | Introduction from Chair  |
| 14:05 - 14:15    | Greening the Gas Grid<br>David Wall, MaREI Centre, UCC   |
| 14:15 - 14:30    | The Dutch Experience of Greening the Gas<br>Grid<br>Mathieu Dumont, Senior Consultant<br>Netherlands Enterprise Agency (RVO.nl)          |
| 14:30 - 14:45    | The Irish plan for a Green Gas Industry<br>Ian Kilgallon, Innovation & Business<br>Development Manager, Gas Networks<br>Ireland          |
| 14:45 - 15:15    | Q&A on Green Gas Grid led by Brian Ó<br>Gallachóir, Chair of Energy Engineering,<br>UCC, Chair of IEA ETSAP,<br>Director of MaREI Centre |

#### Questions:

1) What role will the Renewable Gas industry have in the future energy mix (out to 2050)

2) What penetration of Renewable Gas do you envision?

Renewable Energy

- 3) Where do you see Renewable Gas playing the most significant role?
- 4) What role will Guarantees of Origin play in supporting Renewable Gas?

15:15 - 15:30





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Anaerobic Digestion in the Circular Economy

Session 4: Technical aspects of greening the gas grid | The Causeway Project

15:30 - 17:00

Q&A on Technical Aspects of Green Gas Grid led by Gas Networks Ireland

Questions:
1) How best to manage network congestion associated with injection of Biomethane?
2) How important is the harmonisation of Gas Quality Standards across Europe?
3) Which approaches are most effective in ensuring gas quality meets the gas entry specification?

4) What is the best approach to manage lower calorific values?

17:00

Close



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