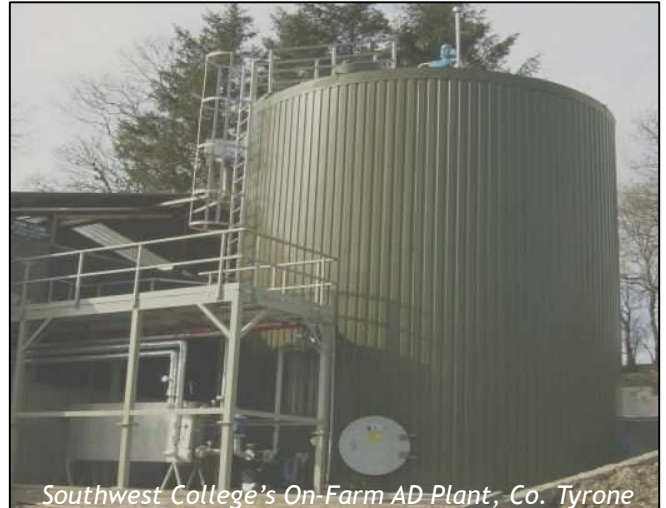




Training Course on -

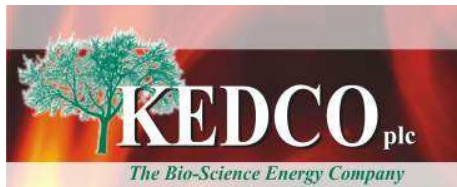
Introduction to Anaerobic Digestion & Site Visit to Ringsend Anaerobic Digestion Plant



Southwest College's On-Farm AD Plant, Co. Tyrone

Wednesday, 24 June 2009, Ballsbridge Inn Hotel, Dublin 4

Kindly sponsored by



At a Cré meeting in January, a large number of the members stated that they would like Cré to embrace Anaerobic Digestion (AD) within Cré's remit, as indeed did 84% of those members who responded to the 2009 membership survey. As a result, the Cré Board of Administration has agreed that Cré should conduct an 'exploratory period of investigation on AD'. During this exploratory period, Cré has decided to host this all-island training course to educate its members and stakeholders about AD.

Anaerobic Digestion is not a new technology and has been in use by the Water Industry for over a century, where until recently its main role was to stabilise sewage sludge prior to its recycling to agricultural land. More recently, the main focus on Anaerobic Digestion has been its ability to generate a useful fuel, methane. In this role, it offers the potential of treating organic waste, especially food waste, diverted from landfill and, in return, of producing renewable energy in the form of biogas which can be used for heat, power and fuel. Thus, it offers the potential of making a significant contribution to achieving key national targets by reducing the amount of biodegradable municipal waste sent to landfill, reducing CO₂ and other greenhouse gas emissions and increasing the fraction of renewable energy production.

Leading international and national experts will be exploring the opportunities which Anaerobic Digestion has for the treatment of organic waste, with a focus on food waste. This course is an introductory course, sharing practical experiences, examining if it can be integrated into existing composting sites, and how to use the digestate /electricity. The course includes presentations from organisations presently leading the European AD industry. The course will explore the energy opportunities which AD presents with key speakers. In addition, there will be a session of case studies to explore the practicalities of operating AD systems and the development of markets for the resulting products. The speakers will provide a comprehensive overview of the various systems which are in operation and show both theoretical and practical examples of the systems' success across Europe.

Final Agenda -12.06.09

- 8.30-9.00 Registration/coffee**
- 9.00-9.30 Short update on Anaerobic Digestion (AD) in Ireland & waste policies**
- Facilities in Ireland
 - What is Cré's Role in AD?
 - Update on Food Waste Regulations, Circular WPRR 04/09, EPA's Document on Pre-Treatment of Organic Waste to Landfills, Northern Ireland Landfill Allowance Scheme and Landfill Levies. *Percy Foster, Cré (Chief Executive)*
- 9.30-10.30 AD - What is it all about?**
- Overview of process and utilisation possibilities
 - Feedstock/AD biology
 - Technical requirements and main plant components (incl. mentioning wet/dry, mono/co-digestion, operating issues/lessons learnt)
 - Economy of AD plants
 - Sustainable Energy Ireland's (SEI) grants and subsidies
Tom Knitter, SEI-Renewable Energy Information Office (Bioenergy Project Executive)
- 10.30-11.00 Coffee break in exhibition area**
- 11.00-11.30 Possible integration of AD and aerobic composting processes**
- Improved flexibility, other benefits and the risks
 - Revenue streams and costs
 - Feasible and cost effective treatment of a wide range of biowaste types
 - Mixing AD inputs and composting materials to achieve quality products
 - Uses for biogas.
Josef Barth, European Compost Network (Managing Director)
- 11.30-11.50 Case studies of Celtic Composting Systems AD technologies integration with composting facilities** *Dr. Andrew Walsh, Celtic Composting Systems Ltd (Managing Director)*
- 11.50- 12.10 Case studies of FLI AD technologies**
Michael Geary, FLI Energy (Business Development Director)
- 12.30-13.30 Carvery lunch in the Dubliner restaurant**
- 13.30-15.30 Site visit to the Anaerobic Digestion facility in Ringsend waste water treatment plant**
- 15.30 -16.00 WRAP's work on AD**
- Markets for digestate
 - PAS 110 quality standard
 - DEFRA AD demonstration programme - case studies of a food waste AD plant
Ian Garner, Waste and Resources Action Programme Northern Ireland (Manager)
- 16.00-16.20 Coffee break in exhibition area**
- 16.20-16.40 Case studies of KEDCO AD technologies**
Richard Kennedy, KEDCO (Sales Director)
- 16.40-17.00 Case study of Southwest College and GreenFarm Energy experience of setting up an AD on- farm plant in Co. Tyrone**
Dr. John Moore, South West College, Omagh
- 17.00-17.25 Connecting to the electricity grid**
- How to connect an AD plant to the power grid
 - Lessons learnt of connecting AD plants in Ireland to the power grid.
Rory Mullan, Irish Grid Solutions

Speaker Biographies

Ian Garner is WRAP's Northern Ireland Manager, based in Belfast. Ian joined WRAP in 2003 after a 20-year career in the chemical industry and is a Chartered Environmentalist. He is a biologist by background and has industrial and research experience in the fields of waste and wastewater treatment, contaminated land regeneration and chemical manufacturing and production process development. Ian is WRAP's main point of contact for the Northern Ireland Government and Northern Ireland Stakeholders and he also works alongside organisations in the Republic of Ireland in cross-border market development projects. Alongside WRAP's UK teams, Ian works with businesses and the public sector in Northern Ireland to implement WRAP's recycling market development programme delivery in Northern Ireland.

Josef Barth is a consultant and an expert in the field of organic waste treatment, compost quality and compost certification. He has been working both for governments and industrial clients all over Europe. He works as the Managing Director of the international scientific technical network ORBIT Association and of the European Compost Network ECN. The ECN is an extensive Central and Eastern European network of practitioners in the field of biological waste treatment and related topics with more than 1,000 experts and treatment plants as members in 24 countries.

Percy Foster is the CEO of Cré since March 2006. His role is the development of a sustainable composting industry in Ireland, the coordinating the affairs of the association, participation in projects such as the compost standard project and the development of training courses. Percy Foster has Master of Science degree (by research) in composting and market development and an honours degree in Environmental Science and Technology from Institute of Technology, Sligo.

Andrew Walsh's qualifications include a degree in Marine Science and Technology and a PhD in Environmental Biology. Andrew has worked as a marine chemist at the Marine Institute, as an environmental consultant with UCC and most recently as Managing Director of Celtic Composting Systems Ltd. CCS has developed 15 compost and biogas facilities in Ireland, the UK and Iceland since 2001. CCS is currently being re-branded as Celtic Bioenergy in response to increasing involvement in biogas projects.

Tom Knitter studied at the University of Applied Sciences Hamburg in Germany. He has a Graduate Diploma in Environmental Engineering and specialised in Environmental Bioprocess Engineering. During the last 5 years he was site manager/plant manager for 16 different biogas plants. He was responsible for the full plant management which included the technical, biological and economical management as well as consulting and reporting with clients (e.g. Energy Supplier or investors) on plant performance and plant issues. At the beginning of 2009 he started at the Renewable Energy Information Office as a Bioenergy Project Executive.

Rory Mullan works for Irish Grid Solutions (IGS) which is an electrical engineering consultancy specialising in electrical infrastructure for the connection of generation and demand installations. IGS has expertise in connecting a wide range of generation technologies and industrial demand customers to both the transmission and distribution system. Employing a team with over 15 years' experience, we can advise clients on the technical, commercial and regulatory aspects of grid connections in both Ireland and Northern Ireland.

Micheál Geary joined FLI in 2007 and is the Business Development Director with FLI Energy. Prior to joining FLI, Micheál was head of Biowaste Development & Operations with Greenstar. Micheál was responsible for the operations of existing Greenstar biowaste facilities and the development of new facilities. Joining Greenstar in 2001, he formulated and led Greenstar's biowaste strategy. Micheál has also worked as Senior Projects Engineer for a leading Irish engineering firm Fehily Timoney & Co.

Richard Kennedy has a Bachelor of Agriculture Science degree and was a director of Devenish Nutrition where he gained vast international experience in growing and developing a business in a tough competitive environment. He was intimately involved in the growth and success of the company which developed Devenish Nutrition into a leader in the market. He has also worked for the multinational company Provimi. Richard now carries on the function of Sales Director of Kedco Industrial and is involved in the strategic planning of the Group and has considerable experience in the US and mainland Europe. He works closely with other divisions of our business, understands the subtle differences between the markets and insures applicable technology transfer within the Group. Richard has just recently been appointed to the High Level Action Group on Green Enterprises by the Irish Government.

John Moore graduated from Queens, Belfast with a PhD in Agricultural and Food Science in 1993 and worked in the animal health sector (1994 -2003) in product development and veterinary registration on projects that resulted in the launch of new products into UK and international markets. With South West College since 1994 as research lecturer, involved in environmental projects and curriculum development.

BOOKING FORM

NAME

ORGANISATION

ADDRESS

E-MAIL

FEE

- Cré Member's Rate is €150
- Non-Member's Rate is €200

This includes all coffee breaks, lunch, copy of presentations, transfer to the site visit and a *Cré Certificate of Attendance*.

**Please return this booking form as soon as you can to secure your place on the course.
Please note that this course has limited places and is offered on a first come basis.**

Cancellations / substitutions

For those unable to attend, a substitute delegate may be sent at any time for no additional charge. Alternatively a refund of 80% will be given for cancellations received in writing, by fax or letter, up to 5 days prior to the course. Regrettably no refunds can be made after that date, only excluding exceptional circumstances.

Course fee	
Total amount €	

CHEQUE ENCLOSED: (YES/NO) PURCHASE ORDER NO: _____ BANK TRANSFER: (YES/NO)

**Post / fax / email to Percy Foster, Cré - Composting Association of Ireland,
Business Innovation Centre, Institute of Technology Campus, Ballinode, Sligo, Ireland
f. +353 (0)71 914 4500 t. +353 (0)86 812 9260 e. percy@cre.ie**

Venue

Ballsbridge Inn Hotel, 124 Pembroke Road, Ballsbridge, Dublin 4

- The course will be held in the Martello Tower room on the 9th floor the Ballsbridge Inn Hotel.
- The Martello Tower room and balcony gives a bird's eye view of Dublin City.
- Large car park available at the hotel
- Accommodation at Ballsbridge Inn Hotel (internet booking on www.d4hotels.ie)- **€49 (room only) or €60 (B&B)**
- Lansdowne Road DART Station is just a 3 minute walk from the hotel.
- A Taxi rank is situated at the hotel entrance.
- The Aircoach stops directly outside the door on its way to and from Dublin Airport.

InterTradeIreland Market Report on the Composting and Anaerobic Digestion Sector

InterTradeIreland recently published a market report on the composting and Anaerobic Digestion sector. The report was launched at an event organised by Cré at which Minister for Environment, Heritage and Local Government, John Gormley TD spoke. The report shows the issues and challenges in the sectors, but also the opportunities to develop cross-border trading of compost and technologies. The report highlights that if every household and business on the island were provided with a brown bin, up to 1.5 to 2 million tonnes of organic waste could be diverted from landfill and approximately 12,000 jobs could be created. Capital funding to build is needed to support the rapid development of food waste reprocessing facilities across the island of Ireland. This will help to stimulate a greener economy by creating skilled jobs in construction, collection, reprocessing marketing and distribution - and bring significant environmental benefits. To download the report, please go to www.intertradeireland.com

