

International and Irish Intensive Biogas Training – Practical Plant planning, Digester Biology, Biogas and Digestate Upgrading

June 25th-28th, 2024

Address of the venue: Gurteen Agricultural College
Ballingarry, Roscrea, Co. Tipperary, E53 TP93, Ireland

Tuesday, June 25th		Practical Plant Planning
8.30 – 9.00	Registration	
9.00 – 9.30	Welcome to the seminar <i>Stephanie SCULLY, Gurteen Agricultural College, Roscrea, Ireland</i> <i>Michael KÖTTNER, IBBK Fachgruppe Biogas GmbH, Kirchberg/Jagst, Germany</i> Lecturers and attendees introduce themselves	
9.30 – 10.30	Overview of the Biogas technology and its future development <ul style="list-style-type: none"> • Introduction to biogas technology and process design • Planning and environmental considerations associated with biogas projects • Operational requirements <i>Michael KÖTTNER, IBBK Fachgruppe Biogas GmbH, Kirchberg/Jagst, Germany</i>	
10.30 – 11.00	Coffee break	
11.00 – 12.30	Choosing the right substrate and combining it for the optimal digestion input <ul style="list-style-type: none"> • Substrate selection criteria • Calculation of the gas yield according to energy content • Substrate quality and level of contamination • Off farm material from communal and industrial origin <i>Francesco Mastrolonardo, BTS Biogas, Brunico, Italy</i> <i>Bettina Müller, BTS Biogas, Brunico, Italy</i>	
12.30 – 13.30	Lunch	
13.30 – 15.00	Biogas and biomethane prospects in Ireland <i>Noel GAVIGAN, Irish BioENERGY Association IrBEA</i>	
15.00 – 15.30	Coffee break	
15.30 – 17.00	Introduction into design, planning and process engineering <ul style="list-style-type: none"> • Digester types • Pumping and mixing • Choosing the right equipment for your project <i>Michael KÖTTNER, IBBK Fachgruppe Biogas GmbH, Kirchberg/Jagst, Germany</i>	
17.00 – 17.15	Discussion, end of the first seminar day	

Wednesday, June 26th		Practical Digester Biology	
9.00 – 10.30	N-rich feedstocks: Feed Heaven or Feed Hell?		
	<ul style="list-style-type: none"> • Causes of ammonia inhibition • Countermeasures • Case studies and practical examples • H₂S control • Struvite prevention 		
	<i>Dr. Melanie HECHT, Schaumann BioEnergy GmbH, Pinneberg, Germany</i>		
10.30 – 10.45	Coffee break		
11.00 – 12.30	How to optimize plant performance – using feedstocks from Ireland		
	<ul style="list-style-type: none"> • Introducing 50% Irish grass into your digester and its impacts on agitation, retention time, loading rate a.o. • Best practice ensiling for grass 		
	<i>Dr. Melanie HECHT, Schaumann BioEnergy GmbH, Pinneberg, Germany</i>		
12.30 – 13.30	Lunch		
13.30 – 14.45	7 Steps to superior Silgae		
	<i>Andy LEE</i>		
14.45 – 15.00	Coffee break		
15.00 – 17.00	Tour of the College Farm		
	<ul style="list-style-type: none"> • various animal housing • manure collection systems 		
	<i>Kenneth FLYNN, Gurteen Agricultural College, Roscrea, Ireland</i>		
	<i>Michal KÖTTNER, IBBK Fachgruppe Biogas GmbH, Kirchberg/Jagst, Germany</i>		
17.00 – 17.15	Discussion, end of the day		

Thursday, June 27 th Biogas upgrading, biomethane injection	
09.00 – 10.30	<p>The potential of biomethane as a renewable fuel for heat, electricity and transport</p> <ul style="list-style-type: none"> • Overview and future developments of the Irish biomethane market • Overview of Gas Network Ireland (GNI) – Central Grid Injection facilities (CGI) <p><i>Ian KILGALLON, Gas Networks Ireland</i></p>
10.30 – 11.00	Coffee break
11.00 – 12.30	<p>Biogas upgrading and different pathways of biogas utilisation</p> <ul style="list-style-type: none"> • Comparison of upgrading technology • Biomethane injection • Green gas certificates <p><i>Taha GIURANI, CNG Services Ltd., Solihull, UK</i></p>
12.30 – 14.00	Lunch
14.00 – 15.00	<p>Nephin Renewable Gas - Gas to Grid</p> <ul style="list-style-type: none"> • Overview of project and technology incorporated • Physical and regulatory challenges associated with development • Opportunities for future development <p><i>Michael McENIRY</i></p>
15.00 – 15.30	Coffee break
15.30 – 17.00	<p>Biomethane as a transport fuel</p> <ul style="list-style-type: none"> • Overview of the status quo • Possibilities and challenges <p><i>Michael KÖTTNER, IBBK Fachgruppe Biogas GmbH, Kirchberg, Germany</i></p>
~ 17.30	Discussion, end of the day

Friday, June 28 th Digestate Upgrading and Marketing	
09.00 – 10.30	<p>Digestate Management and Valorisation</p> <ul style="list-style-type: none"> · minimising environmental impacts of digestate storage and handling · processing and/or valorising (adding value) to digestate · digestate marketing/working with farmers to maximise utilisation <p><i>Stephen NOLAN, GlasPort Bio, Ireland</i></p>
10.30 – 11.00	Coffee break
11.00 – 12.00	<p>Overview of new digestate spreading and treatment technologies</p> <ul style="list-style-type: none"> · Fertilizer management · Field application for Irish conditions · Digestate processing and upgrading · Delivering to third party <p><i>Michael KÖTTNER, IBBK Fachgruppe Biogas GmbH, Kirchberg, Germany</i></p>
12.00 – 13.00	Lunch, handout of the certificates
13.00 – 16.30	<p>Biomethane plant visit</p> <p><i>TBC</i></p>
	End of the training.

Programme may be subject to change