

Conditions of participation

Registration is required in writing per fax or e-mail. After receiving your complete registration, we will send you the confirmation and bill by e-mail. Written cancellations are possible before June 21, 2015 for an administration charge of 150 Euro. After June 21, 2015 cancellations are billed in full. In case of cancellations even in case of illness we gladly accept a substitute participant. The number of participants is limited, therefore a timely registration is recommended.

The complete price for the biogas course is **1290 EUR**. REA full members: **1050 EUR**.

All prices plus 19 % VAT. If there's a VAT registration number of your company available and your country belongs to the EU, we won't have to charge VAT.

Included are

- seminar-CD
- beverages during the course
- lunch with beverages
- entrance fees to biogas site

Not included are

- travel to seminar and biogas site
- accommodation
- further meals and beverages

Registration form (please provide billing address)

Biogas Training, July 6-8, 2015 - Dundee, UK

.....
Family name First name

.....
Company/ Institution

.....
VAT Reg.-No. (only required for European companies to issue invoices without VAT)

.....
ZIP-code City Country

.....
Street/No

.....
Fon Fax

.....
E-mail www

.....
Date Signature

Please send your registration

by Fax to:

or E-mail to:

+49 - (0)7954 - 926132

s.volk@biogas-zentrum.de

IBBK Fachgruppe Biogas GmbH * Am Feuersee 6 * 74592 Kirchberg * Germany



International Intensive Biogas Training

- Practical Digester Biology -

At the Abertay University, Dundee, UK

July 6-8, 2015

For the first time the Renewable Energy Association (REA) and the International Biogas and Bioenergy Center of Competence (IBBK Fachgruppe Biogas) are delighted to welcome you for a 3-day long in-depth Biogas Operators & Planners Course at the Abertay University in Dundee. The course will be delivered by biogas experts from Germany and UK with many years of practical experience in the biogas sector.



Who would benefit from the course?

- Biogas plant operators & staff; farmers planning to operate an AD-facility
- AD developers
- Central & local government officials engaged with AD
- Banks & investment houses, private investors
- Academic institutions

Preliminary programm

Monday, 06 July 2015

08:30	Registration
	Welcome to the seminar Lecturers and attendees introduce themselves
	Overview of the Biogas industry in Europe and UK and its future development
10.30	Coffee break
	New substrates and their pretreatment for future biogas plants <ul style="list-style-type: none"> • Macro algae and their challenges • Pyrolysis liquids from low quality biomass • Pretreatment for the improvement of biogas yield
12.30	Lunch
	Fundamentals of biological process <ul style="list-style-type: none"> • The anaerobic digestion process • Environmental parameters • Engineering parameters
15.00	Coffee break
	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
17.00	Discussion
17.15	End of the day

Tuesday, 07 July 2015

9:00	Pretreatment and pre-storage technology <ul style="list-style-type: none"> • Ensiling and pre-storage technology • Purpose and designing of mixing pit and hydrolysis phase • Pretreatment of difficult substrates • Dealing with high fiber and high nitrogen content
10:30	Coffee break
10:45	Start up phase & practical measures for monitoring the digestion process <ul style="list-style-type: none"> • Initial phase: Heating-up and Feeding-start • Testing parameters during operation

	<ul style="list-style-type: none"> • Practical devices for plant monitoring
12:30	Lunch
13:15	Process parameters <ul style="list-style-type: none"> • Inhibitors in anaerobic processes • Additives • Process control
15:00	Coffee break
	Interactive group and laboratory session - Necessary laboratory tests & practical interpretation of operating modes <ul style="list-style-type: none"> • using examples from practise • Testing parameters during operation • Practical devices for plant monitoring • Record keeping
17.00	Discussion
17.15	End of the day

Wednesday, 08 July 2015

09:00	Practical experiences & lessons from operating a bio-waste and food waste plant
10.30	Coffee break
	Measurement for process optimisation, stabilisation and enhancement of the biogas process <ul style="list-style-type: none"> • Gas analysis related to the metabolic pathway • Application area for gas analysis devices • Application of further measured variables, controlling and supervisory control
	Questions and answers
13:00	Lunch
15.00	Biogas Plant visit
~ 17.15	Return to Dundee End of the Seminar