

BIOGAS TRAINING AND MOBILISATION CAMPAIGNS IN EASTERN EUROPE

Dominik Rutz¹, Rainer Janssen¹,
Matjaž Grmek², Gerhard Agrinz³, Konstantinos Sioulas⁴, Charalambos Malamatenios⁴, Ilze Dzene⁵,
Libert Yavachev⁶, Biljana Kulisic⁷, Tobias Finsterwalder⁸, Michael Köttner⁹, Svetla Marinova Garvanska¹⁰,
Augustin Ofiteru¹¹, Teodorita Al Seadi¹²

¹WIP Renewable Energies
Sylvensteinstr. 2, 81369 Munich, Germany
Tel. +49 89 720 12739, Fax +49 89 720 12791
E-Mail: dominik.rutz@wip-munich.de
Internet: www.wip-munich.de, www.big-east.eu

² Slovenian Energy Restructuring Agency (Slovenia), ³ Ing. Gerhard Agrinz GmbH (Austria),
⁴ Centre for Renewable Energy Sources (Greece), ⁵ Ekodoma (Latvia), ⁶ Energoproekt jsc (Bulgaria),
⁷ Hrvoje Pozar Energy Institute (Croatia), ⁸ Finsterwalder Umwelttechnik GmbH & Co. KG (Germany),
⁹ German Biogas and Bioenergy Society (Germany), ¹⁰ N. Poushkarov Institute (Bulgaria),
¹¹ SC Mangus Sol SRL (Romania), ¹² University of Southern Denmark (Denmark)

ABSTRACT: In order to support the biogas market in Southern and Eastern Europe the BiG>East project “Promoting Biogas in Eastern Europe – Mobilization of Decision Makers and Training for Farmers” was supported by the European Commission under the Intelligent Energy for Europe Programme. The general objective of BiG>East was to promote the production and use of biogas as a secure and sustainable energy source in six target countries of Eastern and Southern Europe: Bulgaria, Croatia, Latvia, Romania, Slovenia, and Greece (BiG>East target countries). The BiG>East project aimed to build capacities and transfer knowledge from project partners of Western Europe with extensive, long-term expertise to farmers, biogas plant operators, and decision makers in Southern and Eastern Europe. This was achieved by the organisation of 13 mobilisation campaigns for decision makers, 19 training courses for farmers, and several study tours. Show cases were elaborated to support the mobilisation campaigns, and training material (biogas handbooks) was prepared for the training courses. The present paper shows the experiences and lessons learnt during the implementation of the 30 month BiG>East project.

Keywords: biogas, anaerobic digestion, barriers to bioenergy, socio-economic aspects

1 INTRODUCTION

Europe’s current situation with increasing fossil energy prices and rising dependency on energy imports makes it highly necessary to produce and valorise biogas in terms of heat, electricity and fuel. Currently, the biogas sector in Western Europe is faced by rapid technical and non-technical developments and innovations, and biogas markets are growing at a considerable pace. In Germany, the biogas market is booming and there are currently about 4,500 biogas plants installed. Also Austria and Denmark have considerable biogas markets. Although the biogas potential is very promising, especially if organic wastes are used, the biogas market in Southern and Eastern Europe is still very small. Some of the target countries have already established renewable energy laws (including the support of biogas production), others still lag behind.

In order to support the biogas market in Southern and Eastern Europe the BiG>East project “Promoting Biogas in Eastern Europe – Mobilization of Decision Makers and Training for Farmers” (Contract No. EIE/07/214) is supported by the European Commission under the Intelligent Energy for Europe Programme.

Since BiG>East terminated in March 2010, a follow-

up project on “Development of sustainable biogas markets in Central and Eastern Europe” (BiogasIN) (Contract No. IEE/09/848) was successfully submitted in the framework of the Intelligent Energy for Europe Programme II, and accepted by the European Commission.

2 THE BiG>East PROJECT

The general objective of BiG>East (Figure 1) was to promote the production and use of biogas as a secure and sustainable energy source in six target countries of Eastern and Southern Europe: Bulgaria, Croatia, Latvia, Romania, Slovenia and Greece. This was achieved by knowledge transfer from project partners with extensive, long-term expertise of Western Europe to farmers, biogas plant operators and decision makers in Southern and Eastern Europe. Furthermore, studies on the national legislations, but also on biogas potential, agricultural structures, and policies in the BiG>East target countries were assessed.

The BiG>East project was coordinated by WIP Renewable Energies and included twelve organisations which elaborated the following tasks of the BiG>East project:

- Studies on the **biogas potential and barriers** in the target countries
- Development of training **handbooks** for farmers in English and national languages
- Implementation of pilot **training courses** for farmers
- Identification of **promising sites** for the set-up of new biogas plants
- Organisation of **mobilization campaigns** for decision makers and funding bodies
- Dissemination of project results via **workshops**, technical **study tours** and presentations



Figure 1: BiG>East logo

Further information about the BiG>East Project is available on the project website: www.big-east.eu.

3 THE BIOGAS MARKET IN SOUTHERN AND EASTERN EUROPE

Southern and Eastern Europe represents a great potential for biogas production and utilisation due to its significant agricultural sector and waste streams. However, this potential still remains unexploited. The biogas business sector identified these target countries as high potential biogas markets, but all share the same main barrier for its development: lack of suitable framework conditions for the set-up of new biogas plants. These missing framework conditions are related to three main areas:

- Lack of suitable policies and legislation
- High administrative burdens
- Difficult access to financing sources

If these barriers are not removed, the biogas development in these countries remains low. On the other hand, the production and wide-range utilisation of biogas could offer many benefits for Bulgaria, Croatia, Latvia, Romania, Slovenia and Greece, contributing to national and European legislation and targets as included in the Directives on: nitrate (Council Directive 91/676/EEC), fertilizers (2003/2003/EC), waste (2006/12/EC), and landfill of waste (1999/31/EC). The production of biogas in Southern and Eastern Europe may especially contribute towards the 20% renewable energy target of the Directive “on the promotion of the use of energy from renewable sources” (RED) (2009/28/EC) which recognises that “the use of agricultural material such as manure, slurry and other animal and organic waste for biogas production has, in view of the high greenhouse gas emission saving potential, significant environmental advantages in terms of heat and power production and its

use as biofuel. Biogas installations can, as a result of their decentralised nature and the regional investment structure, contribute significantly to sustainable development in rural areas and offer farmers new income opportunities”.

4 MAIN ACHIEVEMENTS OF BIG>EAST

Generally, the BiG>East project was a great success. The timing of the project start coincided with the start of the first developments on biogas activities in the target countries (except Romania which has already a long history in biogas). Thus, BiG>East supported the efforts in the creation of these new markets.

One of the outstanding and long lasting impacts of BiG>East was the development of the biogas handbook in English and in national languages. In most of the target countries, the translated handbook represented the first biogas handbook in local language. Since the handbook is available for free also in electronic version on the website, it will even have a long-term impact beyond the project lifetime.

Generally, large translation efforts were needed, not only for the handbooks, but also for the implementation of the other BiG>East activities in the target countries. This included the development of national biogas terminologies, the translation of training material, and (simultaneous) translation during the presentations of foreign biogas experts for the training courses and mobilisation campaigns.

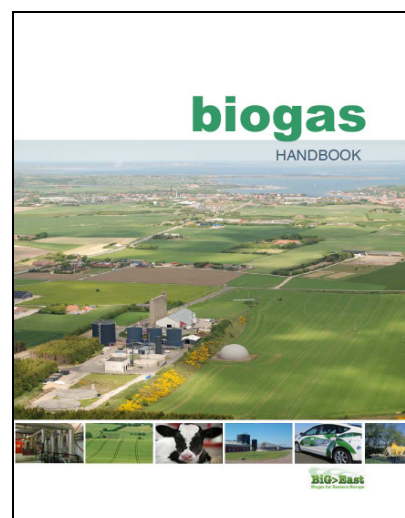


Figure 2: BiG>East Biogas Handbook

In the framework of the biogas training courses, farmers, but also other stakeholders, were trained. However, while implementing the BiG>East project, also the project participants themselves were trained about biogas concepts, technologies, frameworks, and markets. This contributed to national capacity building on biogas production and utilisation in Eastern Europe.

19 training courses were successfully implemented in the target countries. In many cases, the duration of the training courses largely exceeded the schedules due to the high interest and motivation of the participants. In total, more than 300 participants attended the training courses.

The BiG>East Show Cases were elaborated in order

to detect potentially suitable sites for biogas production, and to promote these examples among decision makers in so-called mobilisation campaigns. The Show Cases prepared the way for the implementation of several biogas plants. Especially in Greece Bulgaria, and Romania the Show Cases contributed to project realisations.

13 mobilisation campaigns were successfully implemented informing more than 400 decision makers about biogas. Local authorities, as well as potential plant operators and investors were the main groups of participants. At the Mobilisation Campaign in Bulgaria, the participants expressed the need to establish a Bulgarian Biogas Association and initiated first preparatory steps. At the 2nd mobilisation campaign in Croatia, the idea of establishing a biogas lobbying group have been introduced. Several months later, in November 2009, the Biogas Group at the Association of RES at the Croatian Chamber of Economy have been formally established.

BiG>East activities showed that there is very high general interest in biogas production in the target countries. Stakeholders made large efforts to gain information about biogas (some farmers travelled more than 1,200 km by car to attend the study tour). More than 1,000 stakeholders participated at various BiG>East events and provided feedback on opportunities and barriers on biogas development in Eastern Europe.

Although BiG>East was very successful, one of the main outcomes was that the main barrier against biogas development in the target countries are, on the one hand still the unsuitable frameworks (administrative burdens of permitting procedures, lack of financing, lack of policies, feed-in tariffs, etc.), but on the other hand also the lack of capacity about biogas production and use (lack of pilot plants, lack of knowledge and awareness, lack of skilled personnel). These issues have to be tackled in more detail in future projects.

Since BiG>East was one of the first projects in the target countries supported by public funds and since it initiated great interest among the involved partners and participants, there is urgent need to continue the biogas activities in the target countries in order to positively improve the framework conditions for biogas development.

5 CONCLUSION

In conclusion, the BiG>East project contributed to an increased penetration of knowledge, awareness and acceptance for biogas in Southern and Eastern Europe through a bundle of non-technical supportive measures. Emphasis was given to awareness rising, European cooperation and capacity building.