

Urban waste for biomethane grid injection and transport in urban areas

Project No: IEE/10/251



Minutes of the 3rd training on business agreements in Zagreb, Croatia

WP 6 – Task 6.2, contribution to D.6.2

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UrbanBiogas website: www.urbanbiogas.eu

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Introduction

FRAUNHOFER organised 3 training courses on business agreements for representatives of cities and municipalities, as well as for potential biogas plant operators and investors. There is still a large gap of knowledge on business models, their advantages and disadvantages among investors and potential biogas plant operators, but also among representatives of cities and municipalities. The trainings will help to bridge this gap. These were in English and also open to UrbanBiogas consortium members. The locations of the training courses were decided by FRAUNHOFER and the consortium.



The 3rd UrbanBiogas training on business agreements was organised by City Holding Zagreb, EIHP and Fraunhofer on 16th October 2013 in the conference room of Zagrebački Holding, Zagreb, Croatia. This training was the third of three trainings.

In the 3rd biogas business models training the following topics were presented and discussed:

- Objectives and tasks of the UrbanBiogas project
- Typical business models and assessment criteria for biomethane projects
- Practical experiences in Croatia with biogas projects from the point of view of a project developer and plant operator
- Overview on biogas/biomethane activities in Croatia
- Business models for biomethane projects in Germany
- Financing options for biogas projects in Croatia and Eastern Europe.

The agenda of this training session is provided in annex I of this report.

Topics of this training were discussed sufficiently in advance with the Croatian partners CH Zagreb, EIHP and the co-ordinator WIP.

Invitations (annex II) to the 3rd training on business agreements were sent out to the project partners and distributed by email and giving the link for the online registration. CH Zagreb and EIHP additionally addressed business partners (target group biogas/biomethane, CHP, energy service companies, energy agencies).

Description of the training session

The 3rd training on business agreements took place in the Conference room of Zagrebački Holding, Zagreb, Croatia, on 16th October 2013. In total 34 people participated in the training. The list of participants is given in the annex III.

The training was opened by Ms Darija Jurica (board member of Zagrebački Holding) and Ms Branka Jelavić (EIHP). They welcomed the participants to Zagreb and overviewed the development of renewable energies in Croatia and portrayed the activities of Zagrebački Holding.

Dominik Rutz (WIP) presented the UrbanBiogas project



and its activities; among others the objectives, trainings, task forces and partnerships. He also mentioned the EU landfill directive and stressed the consequences particularly for the younger EU member states. Finally basic information on business models for biogas production, up-grading to biomethane and distribution were given.



The next presentation of Mr Hoffstede (Fraunhofer IWES) itemised hard and soft criteria which influence the success of a biomethane project. Apart from feedstock, plant technology and creating a demanding market for the product biomethane there exist decisive factors which play a crucial role and may change to make-or-break criterion for a project like legal standards or the tractability of the neighbourhood of a biogas plant.

Mr Varljen (Agrokor Energija) delivered deeper insight into legal, economical and technical challenges of the operation of large-scale biomethane plants based in agriculture in Croatia. Additionally he pointed out the adequate national feed-in-tariffs but did not forget to mention the complex and time consuming procedures of obtaining the necessary permits and approvals.

The following lecture by Željko Jurić (EIHP) described the hardly developed biogas market in Croatia at present. Mr Jurić also risked a targeted look outside the box into well-established biogas markets in Sweden, Germany and The Netherlands. His conclusions for the Croatian biogas market generally went in line with those of the previous speaker.

After the coffee break Björn Plaas (Arcanum Energy) portrayed the situation of a well-established (natural) gas grid and about 130 active biomethane plants, which number is slowly increasing, in Germany. There is a trading of biomethane on a low level - but steadily growing. Biofuel quotas which enhance the businesses are proven with a publically accessible biomethane register. Mr Plaas also pointed out the importance of inter-European biomethane trade.

Jurica Brajković (EIHP) introduced the basics of project financing. It was followed by a lesson on project development and financing in Austria and Germany. Mr Brajković concluded with a look at the current biogas market in Croatia and pointed out the lack of experience and reliable business plans.

The last presentation was given by Miljenko Rimac (Zagrebačka banka, UniCredit Group). He informed the audience about the criteria financing institutes apply for credits for renewable energy projects and focused the attention on due diligence study, yield assessment, construction permits etc. Aspects Mr Rimac treats as crucial for a successful project are a. o. reliable feedstock supply, reliable feed-in-tariffs, transparent legal framework and a positive public attitude towards a biomethane project.

Conclusions

The training was well embraced by the audience. It was held in a good atmosphere with a lot of discussions and questions in between and during the presentations. The summary of this training session was given by the audience: Pre-conditions for successful biomethane projects are

- more effective organic waste collection systems,
- incentives for biomethane from waste,
- stable and reliable feed-in tariffs for electricity, heat and gas produced,
- reliable legal framework; transparent and swift approval procedures.



ANNEX I – Agenda



Wednesday, 16th October 2013
Training on business agreements

Urban Biogas Business Model Training 16 th October 2013			
Venue: Conference room of Zagrebački Holding, Zagreb, Croatia			
Organised by: City Holding Zagreb, EIHP & Fraunhofer IWES			
13:00	13:20	Registration	
13:20	13:30	Welcome speeches	Darija Jurica Zagreb City Holding Branka Jelavić EIHP
13:30	14:00	Urban Biogas Project Presentation; typical business models for biomethane projects	Dominik Rutz WIP
14:00 - 15:30		1st session: Practical Experiences	
14:00	14:30	Criteria to assess biomethane investments	Uwe Hoffstede Fraunhofer IWES
14:30	15:00	Business models for biogas plants in Croatia: Agreements, contracts and lessons learnt – experiences of a biogas plant operator	Velimir Varljen Agrokor Energija
15:00	15:30	Biogas and biomethane activities in Croatia	Željko Jurić EIHP
15:30	15:45	Coffee break	
15:45	16:15	Experience with biomethane business models from Germany and beyond	Björn Plaas Arcanum Energy
16:15 – 17:30		2nd session: Financing Options	
16:15	16:30	Financing options for biogas projects in Croatia	Jurica Brajković EIHP
16:30	17:00	Financing biogas projects in Central and Eastern Europe – Experience from UniCredit	Miljenko Rimac UniCredit Group
17:00	17:30	Summary and discussion	Uwe Hoffstede Fraunhofer IWES

ANNEX II – Invitation to the training for business agreements

 <p>FRAUNHOFER INSTITUTE FOR WIND ENERGY AND ENERGY SYSTEM TECHNOLOGY IWES</p>	<p>DETAILS</p>  <p>www.urbanbiogas.eu</p>	<p>PROGRAMM</p>
<p>BUSINESS AGREEMENTS FOR BIOMETHANE PROJECTS WORKSHOP 16TH OCTOBER 2013</p>	<p>Fees and expenses: The training is free of charge.</p> <p>Target group: Target group are Croatian and European representatives of cities and municipalities who are interested in biomethane production, as well as potential biogas plant operators, investors, waste disposers and energy providers. As there is space for only a limited number of participants, please register as soon as possible.</p> <p>Conference language: English</p> <p>Venue: Zagrebački holding d.o.o. Ulica grada Vukovara 41, 10 000 Zagreb, Croatia</p> <p>Registration until 10th October 2013 online per mail: Monika Kruhek Zagreb City Holding, subsidiary Čistoća Email: monika.kruhek@zgh.hr Phone: +385 99 8022342 www.zgh.hr www.cistoca.hr</p> <p>Further information: www.urbanbiogas.eu</p> <p>Presented by:   </p> <p>Supported by: </p>	<p>13:00 Registration 13:20 Welcome <i>Branka Jelavić, Energy Institute Hrvanje Požar, Representative of Zagreb City Holding</i> <i>Dominik Rutz, Urban Biogas Project Coordinator</i></p> <p>13:30 Typical business models for biomethane projects <i>Dominik Rutz, WIP - Renewable Energies, Munich</i></p> <p>14:00 Criteria to assess biomethane investments <i>Uwe Hoffstede, Fraunhofer IWES, Kassel</i></p> <p>14:30 Business models for biogas projects in Croatia: agreements, contracts and lessons learned – experience from a biogas plant operator <i>Herman Sedl, Agrikor Energija</i></p> <p>15:00 Biogas and Biomethane activities in Croatia <i>Zjelko Juric, Energy Institute Hrvanje Požar</i></p> <p>15:30 Coffee break 15:45 Experience with biomethane business models from Germany and above <i>Björn Paas, Arcanum Energy, Umeå (tbc)</i></p> <p>16:15 Financing options for biogas projects in Croatia <i>Marko Karan, Junica Brajlović, Energy Institute Hrvanje Požar</i></p> <p>16:30 Financing biogas projects in Central and Eastern Europe – Experience from UniCredit <i>Mijenko Rimac, UniCredit Leasing S.p.A.</i></p> <p>17:00 Summary and discussion <i>Uwe Hoffstede, Fraunhofer IWES, Kassel</i></p>
		

ANNEX III – List of Participants



LIST OF PARTICIPANTS - THIRD TRAINING ON BUSINESS AGREEMENTS (Zagreb, Croatia, October 16, 2013.)



Organized by:

No.	NAME AND SURNAME	INSTITUTION	SIGNATURE
1	Goran Šarić	City Office for Economy, labour and enterprises	
2	Daniel Rolph Schneider	The Faculty of Mechanical Engineering and Naval Architecture	
3	Danijela Bušetinčan	Zagreb City Holding - Zagreb City Gasworks	
4	Branimir Valašek	Zagreb City Holding - subsidiary Čistoća	
5	Darija Jurica	Zagreb City Holding - mother company	
6	Nike Nodilo Lakoš	Zagreb City Holding - mother company	
7	Danijel Vadija	Valvoline Europe	
8	Tomo Krivačić	Zagreb City Holding - subsidiary ZGOS (Disposal of Municipal and Non-hazardous Waste)	
9	Saša Vlakić	Ministry of Maritime Affairs, Transport and Infrastructure	
10	Nikolina Atalić	Zagreb City Holding - mother company	
11	Marijan Gajšak	Faculty of Agriculture	
12	Mladen Iličković	Reporter from the TV show Eko zona	
13	Davor Erceg	Eko zona	
14	Zvonko Biloš	Zagreb Electric Tram	
15	Marko Ružić	City of Velika Gorica	
16	Tihomir Pajtak	Weda Hrvatska	
17	Albin Kapurović	Zagreb City Holding - City Gasworks Supplies	
18	Goran Kahrić	Zagreb City Holding - Zagreb City Gasworks	
19	Andrea Hublin	EKONERG - Energy and Environmental Protection Institute	
20	Ivan Čutić	Environmental protection and energy efficiency Fund	
21	Nebojša Kalanj	The City of Koprivnica	
22	Marko Pavić	Expert for EU projects	
23	Veronika Tomac	EKONERG - Energy and Environmental Protection Institute	
PROJECT PARTNERS			
24	Monika Kruhek	Zagreb City Holding - subsidiary Čistoća	
25	Bojan Ribić	Zagreb City Holding - subsidiary Čistoća	
26	Dinko Sinčić	Zagreb City Holding - subsidiary Čistoća	
27	Željko Jurić	Energy Institute Hrvoje Požar	
28	Uwe Hoffstede	Fraunhofer IWES	
29	Dominik Rutz	WIP Renewable Energies	
30	Ernst Meissner	Graz Energy Agency	
31	Monica Martins	Municipality of Abrantes	
32	Flavia Duarte	IrRADIARE, Portugal	
33	Ilze Dzene	Ekodoma, Latvia	
34	Martinš Niklass	ZAAO, Latvia	
35	Michał Surowiec	Polish Biogas Association, Poland	
SPEAKERS			
36	Branka Jelavić	Energy Institute Hrvoje Požar	
37	Herman Seidl	Agrokor Energy ; Velimir Varkjen	
38	Bjorn Plaas	Arcanum Energy	
39	Marko Karan	Energy Institute Hrvoje Požar ; Jurica Brajković	
40	Jurica Brajković	Energy Institute Hrvoje Požar	
41	Miljenko Rimac	UniCredit Leasing S.p.A.	



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Faulina Tomaskovic' MINPO

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