



Symposium on using bioliquids in engines and turbines in CHP applications

Tuesday 8 November 2011

Tuscany Regional Office, Rond Point Schuman 14, 1040 Brussels

We have pleasure in inviting you to the forthcoming Symposium in Brussels which aims to bring together interested industry and research partners from across Europe and Russia to learn about the results of our project. You will also have the opportunity to hear from invited industrial speakers about their experiences of working in this area.

The programme includes presentations on:

- biofuel upgrading
- engine and turbine modifications for use with biofuels
- exhaust emissions control
- assessment of economics
- business opportunities for application of biomass CHP in the EU and Russia.

The symposium is organised by the Bioliquids-CHP project which is funded under the European Commission 7th Framework Programme with the specific aim of strategic international cooperation with Russia in the field of power generation from biomass. Bruno Schmitz, Head of Unit K3 -New and renewable energy sources- within DG Research of the European Commission, and a representative of the Ministry of Science and Education of the Russian Federation will also present about the strategic and political context in which the Bioliquids-CHP project is implemented.

The Bioliquids-CHP project has been running since January 2009 and will finish in December 2011. In this project, seven project partners from The Netherlands, United Kingdom, Italy and Russia have been working together on the adaptation of engines and turbines to enable operation using a variety of biofuels, including pyrolysis liquids, with a view of co-generating electricity and heat. The capacities we have been looking at are from 100 up to 1000 kW_e. Further information about the project can be found on the project website: www.bioliquids-chp.eu

If you would like to attend the symposium on 8 November 2011, please contact Emma Wylde at Aston University, before 31 October confirming your Name, Organisation, Email address and Telephone number.

Emma Wylde e.wylde@aston.ac.uk, Tel: +44 121 204 3438

Thank you and we hope you will be able to join us on 8 November.



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08.30	Registration and Coffee	
	Session One – Chair D Chiamonti, UFL	
09.00	Welcome by Tuscany Regional Office	Orazio Cellini, Head of Regional Office
09.10	Introduction to the symposium	John Vos, Coordinator, BTG (NL)
09.30	Presentation by European Commission	Bruno Schmitz, Head - New & renewable energy sources, RTD Directorate, EC
09.50	Presentation by Russian Ministry of Science and Education	Alexander V. Zhurikhin, Dept. of Priority Directions in Science & Technology
10.10	Introduction to liquid biofuels for CHP generation	Tony Bridgwater, Aston University (UK)
10.30	Morning Coffee	
	Session Two – Chair B van de Beld, BTG	
11.00	Application of Stirling engines	Gerald Marinitsch, Head of R&D, Stirling DK (Denmark)
11.20	Development of an external combustion engine	Alexander Kronberg, Encontech (Netherlands)
11.40	Modification of micro gas turbines	David Chiamonti, University of Florence (Italy)
12.00	Pyrolysis oil application in OPRA gas turbines	Lars-Uno Axelsson, OPRA Turbines BV (Netherlands)
12.30	Lunch	
	Session Three – Chair T Bridgwater, Aston	
13.30	Modification of a diesel engine, for operation on pyrolysis oil	Bert van de Beld, BTG (NL)
13.50	NAMI diesel engine on bioliquids	Nikolay Khripach, NAMI (Russia)
14.10	CHP diesel units fuelled with animal fats and vegetable oils, and their emission control	Robin Verhoef, Dordtech Engineering (NL)
14.30	Conversion of engines to enable operation on vegetable oils	Georg Gruber, Vereinigte Werkstätten für Pflanzenöltechnologie (Germany)
15.00	Afternoon Coffee	
	Session Four – Chair J Vos, BTG	
15.30	Emission control (DeNox) utilizing syngas	Valeriy Kirilov, BIC (Russia)
15.50	Bioliquids CHP Economics	Alejandro Alcalá, Aston University (UK)
16.10	European (biomass) CHP market	Arnaud Duvielguerbigny, COGEN Europe (Belgium)
16.30	Closing & Discussion	

The symposium will take place at the Tuscany Regional Office which is located at Rond-Point Schuman 14, 1040 Brussels on Tuesday 8 November 2011. The offices are marked as **A** on the map below.

Rond Point Schuman is easily accessible by public transport and is served by the Metro station Schuman, marked **M** on the map. If you are arriving by aeroplane, Schuman is also served by the Airport Line Express Bus service 12 which operates between Brussels Airport and the European quarter. A single ticket for this service costs 5 Euros if purchased on the bus or 3 Euros if purchased in the machines in the airport or near the bus stop at Rond Point Schuman.

