

**PELLETS**  
World's first commercial-  
scale "black pellets"

**BIOGAS**  
Bottom line benefits  
for animal feed plant

**SOLID FUELS**  
Forest biomass  
equipment directory

**HEAT & POWER**  
Pulp mill manager wants cold  
weather and expensive power

**MARKETS & FINANCE**  
Drained peatlands GHG,  
EU iLUC vote, US RFS decree

# BIOENERGY

"Whenever and wherever bioenergy is discussed"

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## INTERNATIONAL

BIOENERGY IN INDUSTRY • BIOENERGY IN INDUSTRY  
*feature:*







Market launch for a retro-fit precipitator developed by Carola Clean Air, a spin-off from Karlsruhe Institute of Technology, for wood-fired boilers in Germany subject to the 1. BImSchV particulate matter (PM) regulations.



– The response has been great said Bernhard Kirchmayr from Austrian boiler company Fröling GmbH referring to the new "EnergieGenie 2015 Innovationpreis" winning woodchip fired CHP 50, 107kW heat and 49 kW electric.



Polish revolving revolution, the PellasX team with Michal Brzeski, CEO (right). The company designs and manufactures pellet and agri-fuel burners in the 5 - 350 kW range and has developed a self-cleaning rotating burner line, Revo.

search, total turnover in the sector is expected to rise by around two percent in 2015 with exports likely to increase slightly more than domestic sales. However as in 2014, sales in the sanitation segment will increase somewhat more than those in the heating field though export sales for the latter are expected to grow more rapidly. This is a sentiment that has been echoed in particular by some pellet stove and boiler manufacturers as well as the German pellet association at several recent pellet conferences during 2014/2015 when the German residential market is up for discussion. It is further compounded by two mild heating seasons in a row. However not everyone is phased by the current pellet heat situation in Germany.

– We've been around in the wood and pellet heating sector long enough to realise that this current interest in sanitation over heating in Germany is



Finnish boiler company, Ala-Talkkari Oy used the event to launch its new modular woodchip-fired combined heat and power (CHP) plant. Using a thermal oil boiler with an Organic Rankine Cycle (ORC) unit the CHP was developed as part of a Research and Development (R&D) project together with Institut für Luft- und Kältetechnik (ILK) in Dresden, Germany.

– The show has been great, we have had several very qualified enquiries so far. Unlike in the Nordics, this scale and type of CHP concept with ORC is popular in central Europe, said Antti Ala-Talkkari, CEO, Ala-Talkkari Oy.

cyclic and we can balance that with more emphasis on other geographical markets, said Bernhard Holzer from Austrian appliance manufacturer Windhager Zentralheizung GmbH.

**Comfort met technology**

There was though plenty of innovation and new products on show with one common denominator, 'connectivity'. It seems that with the onslaught of



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Occupying an enormous stand Buderus showcased amongst other things CHP with fuel cells.



Rewarded with attention, German HDG Bavaria GmbH had just received the coveted iF Design Award 2015.



Austrian company Biokompakt Heiztechnik GmbH showcased its "multi-biomass" fuel boiler.

mobile devices such as smart phones, the use of web-based, remote and IT solutions for appliance control and monitoring has become a hygiene factor irrespective of the brand, size or type of heating appliance.

Another notable feature at this year's edition was energy source flexibility for heating systems. It seems that most suppliers have at least one if not several multi-fuel or hybrid solutions for appliances to offer. In addition quite a number had combined heat and power (CHP) solutions even on a domestic scale. Whilst this is not new in itself the sheer variety of choice, options and solutions now on the production line suggest it is on the verge of being the norm that your next home heating appliance is not only fuel energy efficient and source savvy but could also enable you to offset some of your electricity consumption by power production when you need the heat. That is an interesting thought, massive decentralised marginal, micro-scale, renewable – if using solid biomass, biogas or bio-liquid as fuel – power generation. Roll-on the next ISH, 14–18 March 2017, my biomass fired home heating appliance, anno 1982, is now definitely beyond life-support.

*Text & photos: Alan Sherrard  
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– This year's show has been okay for us. As you can see competition increases all the time, not least from lower cost regions in Europe and elsewhere. The real challenge is getting the right balance of what to display, commented Nicola Menegozzo, Export Manager for Italian stove major Thermorossi.



First time exhibitor Matsios Christodoulos, CEO, Thermostahl Solar, a Greek boiler, stove and fireplace manufacturer with a range of solar, biomass and conventional fossil fuel appliances.

– It's been a learning experience, we've found out that we are very competitive on certain markets.