



# BioPower Generation

*Sustainable large scale power generation from biomass*

Renaissance Hotel, Brussels, Belgium ♦ 12-13 February 2009

**UTILITY CASE STUDIES**  
from: CEZ, Essent, Fortum Varme, Helius Energy, MVV Energie, Nuon Power, RWE Innogy, RWE npower, StormFisher Biogas, Vattenfall and more

**2ND ANNUAL EVENT**

**PLUS**

**Pre-conference workshop: Building a Biopower Portfolio for the Future – Strategies and Raw Materials**

11 February 2009

**Learn from Leading BioPower Generation Experts, Including:**



**Claudes Turmes**  
Member of the European Parliament  
**The Greens**



**Marcus Jentsch**  
Head of Structure Finance  
**MVV Energie**



**Alf Malmgren**  
Combustion Engineer  
**RWE npower**



**Stig Larsson**  
Project Coordinator  
**Agrobränsle**



**Dr. Jan Henke**  
Deputy  
**méo Consulting**



**Dr. Ella Stengler**  
Director  
**Confederation of European Waste-to-Energy Plants (CEWEP)**

**Plus Practical Case Studies, Insight and Analysis from:**

- ▶ **Nicolas Denis**, Associate Principle, **McKinsey & Company**
- ▶ **Michael Duggan**, Head, Renewables Obligation Team, Department for Business, Enterprise & Regulatory Reform (**BERR UK**)
- ▶ **Holger Gassner**, Head of Markets and Political Affairs, **RWE Innogy**, Germany
- ▶ **Michael Herr**, Project Director, **German Energy Agency**
- ▶ **Jonas Höglund**, Head of Office, **Swedish Association of Pellet Producers (SVEBIO)**

- ▶ **Jan de Jong**, Innovation Manager, **Essent**, The Netherlands
- ▶ **Jean-Marc Jossart**, Secretary General, **European Biomass Association (AEBIOM)**
- ▶ **Eva-Katrin Lindman**, Head of Research & Development, **Fortum Varme**
- ▶ **Mia Nordström**, Power Consultant, **Vattenfall**, Sweden
- ▶ **John Seed**, Managing Director, **Helius Energy**
- ▶ **Lars Sørum**, Research Scientist, **Sintef**

- ✔ What are the key sustainability issues?
- ✔ Learn about utility strategies in bio power generation
- ✔ Hear about the latest market and technology developments
- ✔ Case study led agenda

- ✔ Pre-conference workshop: *Building a Biopower Portfolio for the Future – Strategies and Raw Materials*
- ✔ First class networking opportunities including online networking system
- ✔ Interactive agenda with lively debates

This event is part of the European Sustainable Energy Week



*"This is an extremely interesting and well organised conference. I am enjoying my time here and was able to do some very important networking."*  
SEEGER ENGINEERING AT BIOPOWER GENERATION 2008

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The **BioPower Generation** conference will once again provide an excellent platform for companies to learn about the latest trends and international developments in biomass power generation. Following the success of the inaugural **BioPower Generation** conference, Green Power Conferences will bring together the key players involved in the entire value chain for bio power generation.



Soaring fuel prices and an increase in energy demand make power generation from biomass more economically competitive than ever before. Currently only 8.5% of the energy consumed in Europe comes from renewable sources. Bio power generation will therefore play a vital role in achieving the 20% share of renewable energies by 2020 and is an industry with huge growth potential.

Focusing on the latest developments in international policy frameworks for bio power generation, the conference will identify the main opportunities, challenges and barriers faced by companies in the bio power industry. It will show what feedstocks are available and how a sustainable, secure biomass supply chain can be developed. Attendees will learn about transport logistics solutions and the business relationship between suppliers and power stations. The conference will highlight investment opportunities and explain how biomass can be integrated into the energy portfolio.



International case studies on commercially viable co-firing, dedicated biomass, CHP, biomass gasification and waste-to-energy plants will be presented together with the latest technology developments. The event will examine best practice examples from around the world to show what can be learnt from international market leaders.

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#### FEEDBACK FROM DELEGATES AT PREVIOUS GREEN POWER CONFERENCES EVENTS:

"I have nothing but positive things to say regarding your organisation and the conference I attended."

RECOFTC

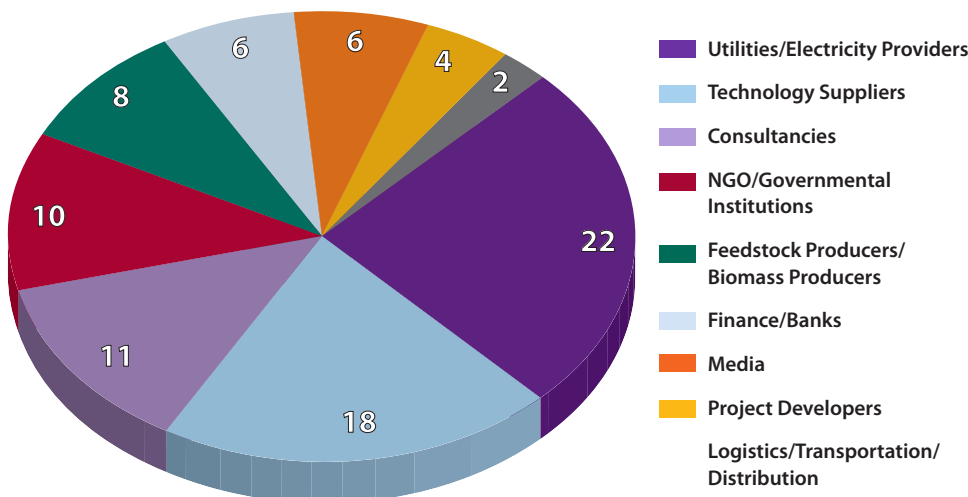
"It was very well organised – a good event."

CAMCO

#### The inaugural BioPower Generation conference was attended by 111 participants from 22 countries. Attendees included high level executives from:

Alstom Power Systems • Babcock & Brown • Biopower International • Bioverda Iberia • BP Alternative Energy International • CGC Gestion de Biomasa • Chevron Technology Ventures • CEZ • Danish Energy Agency • Desmet Engineers & Contractors • Dow Chemical Company • EBICo • EC Bionergie • Eco-Frontier • Econcern • Ecosecurities • EDF • Electrabel • Enel Trade • Enviro • EOn Benelux • Essent Energy Trading • Euro Fibres • Fuelmed • GE Energy Financial Services • Goteborg Energi • Harbert Power • HRE Services • KEMA • KfW Entwicklungsbank • Landkom • MGT Power • Mott MacDonald • NIBC • Nidera Handelscompagnie • Nord/LB • Norsk Vekst • Ontario Power Generation • Poyry Consulting • Rivoira • RWE • SenterNovem • Sintef • Solvay • Stirling Denmark • Vapo Oy • Vattenfall • Vattenfall Heat Poland • Versa Fuels

#### Breakdown of attendees present in 2008:



CEWEP represents about 340 Waste-to-Energy Plants from 16 European countries and one from the USA. This covers 80% of the Waste-to-Energy Plants in Europe. Waste-to-Energy Plants provide necessary public infrastructure for:



- Careful handling of waste
- Conserving natural resources
- Minimising possible emissions

EUBIA, the European Biomass Industry Association, groups together market forces, technology providers, and knowledge centres, all of them active in the field of biomass. The main objective is to promote the use of biomass as an energy source, developing innovative bioenergy concepts and fostering international co-operations within the bioenergy field.



The Confederation of European Forest Owners (CEPF) is the umbrella association of national forest owner organizations in the European Union. It works as the representative of family forestry in Europe, by promoting the values of private property ownership.



EUSTAFOR, as a forum for the European state forest organizations, brings the positive contributions of forest management and of the state forests in particular into the public view, in terms of the realisation of European sustainability strategies. By supporting the pan-European sustainability strategies with all its strength, EUSTAFOR helps its members to implement their individual sustainability strategies.



#### Enhanced Delegate Networking

One of the fantastic new features of **BioPower Generation** is the online networking system – all pre-registered delegates, speakers and guests can contact each other, organise meetings and network before, during and after the event using this easy to use, private networking system. For more information, please visit the website.

08.30 Registration & welcome coffee

09.00 Chair's opening remarks

**Eibhilin Manning**, *Policy Director, European Biomass Industry Association*, Belgium

09.10 **Keynote Session – Bio Power Market Overview**

The keynote session will look into the role of biomass in electricity generation and its potential in power supply. It will identify the drivers for market acceleration in the bio power generation sector and look at how utilities build biomass into their renewable portfolio. The need for a strong policy framework to create a stable environment for successful market developments will be discussed as well as the importance of sustainability criteria for biomass.

#### **Biomass – A Key Component for Renewable Policy in the EU**

- ▶ The directive on the promotion of renewable energy sources
- ▶ The need for sustainability criteria
- ▶ Intermediate targets
- ▶ Outlook

**Claude Turmes**, *Member of the European Parliament, The Greens*, Luxembourg

#### **Biomass for Electricity – The Latest Market Trends in Europe**

- ▶ Biomass for electricity market development
- ▶ Pellets, a new large energy commodity?
- ▶ EU legislation as one of the driving forces
- ▶ Future outlook

**Jean-Marc Jossart**, *Secretary General, European Biomass Association (AEBIOM)*, Belgium

#### **Biomass Potentials in Power Supply**

- ▶ What are the latest trends in biomass markets and technologies?
- ▶ Competitive, reliable and sustainable electricity supply
- ▶ Risks and outlook

**Uwe R. Fritsch**, *Head of Energy & Climate Division, Oeko-Institut*, Germany

#### **Bio Power Generation – A Utility's Perspective**

- ▶ Strategies in Europe
- ▶ Market activities and incentives
- ▶ Case studies

**Holger Gassner**, *Head of Markets and Political Affairs, RWE Innogy*, Germany

10.30 Q&A session

10.50 Networking refreshment break

11.25 **Policy Panel Discussion**

Currently only 8.5% of the energy consumed in Europe comes from renewable sources. This panel discussion will look at how the 20% share of renewable energies can be achieved and what role bio power generation plays in reaching the target. It will look at what Europe can learn from policies in other countries around the world.

- ▶ What are the latest EU policy developments?
- ▶ EU policies compared to international policies
- ▶ Policy developments that support/constrain the growth of the sector
- ▶ The need for intermediate targets
- ▶ Tax measures, fiscal policies, subsidies
- ▶ What are the penalties for non compliance and how are they enforced?

**Michael Herr**, *Project Director, German Energy Agency*, Germany

**Michael Duggan**, *Head, Renewables Obligations Team, Department for Business, Enterprise & Regulatory Reform (BERR)*, UK

**Holger Gassner**, *Head of Markets and Political Affairs, RWE Innogy*, Germany

**Gregory Manuel**, *Special Advisor to the Secretary for Alternative Energy, US Department of State*, USA

12.00 Q&A session

12.15 Networking lunch break

Chairman: **André Pereira**, *Director, The Biofuels Observatory*

13.35 **Financing and Investing in Biomass Power Plants**

This session will address the finance and investment trends in large scale biomass power generation. It will show the financing challenges, risks and costs associated with bio power generation. The impact the second ETS (Emissions Trading Scheme) trading period will have on bio power generation and how companies can benefit from it will be discussed. It will also look at how companies can profit from CDM and JI projects on an international basis.

#### **Financing Waste-to-Energy Plants – A Utility's Perspective**

- ▶ Identifying the main financing aspects
- ▶ From the preliminary project analysis to the financial close
- ▶ Market risks
- ▶ Financing trends

**Marcus Jentsch**, *Group Head of Investors Relations, MVV Energie*, Germany

#### **The North American and European Bio Power Investment Market**

- ▶ Investment market developments in North America and Europe
- ▶ How does the financial crisis effect investments?
- ▶ What can be learnt?
- ▶ Outlook

**Thomas Meth**, *General Manager, Intrinergy*, Germany

#### **Global Investment Trends in Biomass and Waste-to-Energy**

- ▶ Why invest in biomass and waste?
- ▶ Investment overview of the past 5 years
- ▶ Impact of the credit crunch
- ▶ Capital flows and financing trends in the sector

**Imrgard Herold**, *Analyst, New Energy Finance*, UK

14.35 Q&A session

14.50 **Biomass Upstream**

The upstream session will focus on the risks and opportunities in the biomass value chain. It will show who should access the market and identify the barriers and costs. Innovations in distribution will be discussed together with which feedstocks can be used.

#### **A Global and Integrated Perspective about Land Use and Biomass**

- ▶ The involvement of stakeholders in the biomass value chain
- ▶ A global and integrated model for land and biomass availability
- ▶ The issues to materialise the mobilisation of biomass
- ▶ The opportunities along the biomass value chain

**Nicolas Denis**, *Associate Principal, McKinsey & Company*, Belgium

#### **Production of Woody Biomass (Salix) on Farmland**

- ▶ How to grow Salix
- ▶ Production potential, yield levels, sites for plantations, countries
- ▶ Relationship between suppliers and heat/power stations
- ▶ Environmental aspects on growing Salix

**Stig Larsson**, *Project Coordinator, Lantmännen Agroenergi*, Sweden

#### **Biomass Sourcing Concept for 1 Million Bone Dry Tons**

- ▶ The biomass sourcing concept for the BTL plant in northeast Germany
- ▶ Biomass logistics
- ▶ Supply curve calculation and preferred biomass portfolio
- ▶ Medium term and long term biomass sourcing strategy

**Michael Deutmeyer**, *Managing Director Biomass, Choren Biomass*, Germany

15.50 Q&A session

16.05 Networking refreshment break

16.40 **Sustainable Feedstock Panel Discussion**

This panel discussion will look at how to ensure the availability of sustainable feedstocks for biomass power generation. It will identify how a sustainable biomass supply chain can be established. Resources that are available and feasible for large scale bio power production will be shown.

- ▶ The need for sustainability criteria
- ▶ Short rotation forestry as a renewable energy resource
- ▶ Risks associated with intensive farming
- ▶ Food vs. fuel
- ▶ Is there sufficient biomass available on a sustainable basis?
- ▶ How can by-products be integrated into the feedstock portfolio?
- ▶ Present and future sources of biomass

**Dr. Jan Henke**, *Deputy, méo Consulting*, Germany

**Paul Romijn**, *Business Portfolio Developer, Essent*, The Netherlands

**Nicolas Denis**, *Associate Principal, McKinsey & Company*, Belgium

**Mia Nordström**, *Power Consultant, Vattenfall*, Sweden

17.15 Q&A session

17.30 Chair's closing remarks

17.35 Close of day one & networking drinks

08.30 Welcome coffee

09.00 Chair's opening remarks

**Robert Wilson, Pöyry Forest Industry Consulting, UK**

09.10 **Co-firing**

Co-firing is the sector with the largest growth potential and is the most cost effective method for large scale power generation from biomass. This session will look at technical challenges as well as at the most efficient ways to co-fire.

#### Case Study: Co-firing with Lignins

- ▶ Co-firing experiences with the pulp paper industry's black liquer
- ▶ Technical challenges
- ▶ Co-firing and CHP
- ▶ Outlook

**Eva-Katrin Lindman, Head of Research & Development, Fortum Varmre, Finland**

#### Co-firing Challenges – A Utility's Perspective

- ▶ What are the challenges of new co-firing materials?
- ▶ How to integrate new suppliers
- ▶ Assessment methods

**Alf Malmgren, Combustion Engineer, RWE npower, UK**

#### Co-firing in the Czech Republic

- ▶ The latest co-firing developments in the Czech Republic
- ▶ The co-firing situation in other Eastern European states
- ▶ Where do investments come from?
- ▶ Market potentials

**Fabien Hillairet, Renewable Energy Investments, CEZ, Czech Republic**

10.10 Q&A session

10.25 Networking refreshment break

10.55 **CHP and Dedicated Biomass Plants**

Due to their small size, dedicated biomass power plants are more expensive than co-firing plants. This session will look at commercial dedicated biomass plants and how they are made economically feasible. International case studies will show the latest advances in technologies. It will also show how efficient dedicated biomass CHP plants are and will look at the environmental and economic benefits of CHP plants.

#### The 100MW Biomass Power Plant

- ▶ Construction considerations
- ▶ Logistics and feedstocks
- ▶ Technical challenges
- ▶ Increased production efficiency

**John Seed, Managing Director, Helius Energy, UK**

#### Biomass for Thermal Uses – A Practical View

- ▶ Introduction to the technology
- ▶ Development of the location and business conditions
- ▶ How to finance
- ▶ Market barriers and opportunities

**Heinz Jordan, Project Development, Seeger Engineering, Germany**

#### CHP Plants in The Netherlands

- ▶ Environmental and economic benefits of CHP plants
- ▶ Efficiency issues
- ▶ Technology developments

**Paul Romijn, Business Portfolio Developer, Essent, The Netherlands**

#### Fluidized Bed Combustion for Large Scale Power Generation from Biomass

- ▶ The world's largest biomass-fired fluidized bed boilers
- ▶ References for large scale power production
- ▶ High-efficiency combustion with low emissions

**Frank Ligthart, Sales Manager Capital Products, Metso Power, Finland**

12.15 Q&A session

12.30 Networking lunch break

13.45 **Biomass Gasification and Waste-to-Energy Plants**

This session will look into current market conditions for biomass gasification. It will show the current status of commercial plant implementations and the latest technology developments. With growing landfills all around the world, waste-to-energy has become one of the booming sectors in bio power generation. Despite recycling and waste reduction schemes, waste-to-energy is seen as the most viable large scale alternative to landfills.

#### Biogas Technology Innovations

- ▶ What are the latest technology developments?
- ▶ Where is R&D heading?
- ▶ What are the challenges?
- ▶ Latest trends in design and full-scale applications

**Dr. Tico Cohen, Team Leader Biogas Expert Group, Ecofys International, The Netherlands**

#### Waste In – (Mega) Watt Out

- ▶ Overview of the waste-to-energy plants industry
- ▶ The RES directive – what does it mean for waste-to-energy?
- ▶ Energy efficiency
- ▶ Outlook

**Dr. Ella Stengler, Director, Confederation of European Waste-to-Energy Plants (CEWEP), Belgium**

14.45 Q&A session

15.00 **BioPower Generation Outlook**

New technologies are constantly being developed to improve power production efficiency from biomass. The final session will examine developments in technology and in the marketplace which will drive efficiency and increase output.

#### Short to Medium Term R&D Challenges for Electricity Generation from Biomass

- ▶ Cheap and challenging biomass
- ▶ What is "Next Generation Biowaste"?
- ▶ Outlook

**Lars Sørum, Research Scientist, Sintef, Norway**

15.40 Q&A session

15.55 Chair's closing remarks

16.00 Close of conference & networking coffee



The **BioPower Generation Global Series** is an annual calendar of events which provide an excellent platform to do business with bioenergy industry

leaders in expanding biomass power generation markets, keeping you on the road to greater profitability.

Now in its 2nd year, the series offers an integrated solution of brand positioning, business development and face-to-face networking opportunities with senior decision makers in regional hubs.

#### This event is part of the EU Sustainable Energy Week

The third edition of the EU Sustainable Energy Week (EUSEW) is under the umbrella of the Sustainable Energy Europe Campaign (SEE), the European Commission's Directorate-General for Energy and Transport and the European Institutions. It will take place in Brussels, Belgium, and in other cities across Europe from Monday 9 to Friday 13 February 2009.

The EUSEW is the key annual reference point for sustainable energy issues in Europe. The events organised during EUSEW cover key topics that highlight the multi-sectoral nature of sustainable energy development and stress the need for everyone to work together towards a common goal.



# Pre-conference workshop: Building a Biopower Portfolio for the Future – Strategies and Raw Materials

11 February 2009

Workshop chairman: **Robert Wilson, Pöyry Consulting**

Registration

Morning session led by **Pöyry Group – Renewables, Energy and Management Consulting** on **raw materials, biomass and the biomass supply chain**

Speakers include:

**Robert Wilson, Chairman, UK**

**Cormac O'Carroll, President and CEO, UK**

**Richard Slark, Director, UK**

Lunch break

Afternoon session led by **Pöyry Energy Consulting** on **new strategies for bio power**

Close of workshop

Led by



## Workshop Timetable:

09.00 Registration

09.30 Start of workshop

12.45 Lunch

16.00 Close of workshop



## Sponsorship & Exhibition Opportunities

Now in its 2nd year, **BioPower Generation** offers an integrated solution of brand positioning, business development and face-to-face networking opportunities with senior decision makers

### Connecting you with the right people

With a proven track record of delivering high calibre project developers, **BioPower Generation** provides the perfect environment for you to do business with all companies involved in the biomass power generation value chain.

### First class business opportunities

- ▶ Generate new high level business contacts
- ▶ Enhance your company's brand visibility globally
- ▶ Increase your market share and gain competitive advantage
- ▶ Reinforce existing partnerships
- ▶ Find new partners and business opportunities

### Cost effective packages to meet your business needs

Our sponsorship and exhibition packages are designed to help you meet your business objectives. If you are looking to win prospective clients, strengthen existing relationships or enhance your company profile, we will help you do so in a cost effective manner.

### Contact Santosh Sarma for further details

Tel: +971 813 5213 or Cell: +971 50 880 1671

Email: [santosh.sarma@greenpowerconferences.com](mailto:santosh.sarma@greenpowerconferences.com)

## Forthcoming Events



Towards the sustainable bio future  
Brussels, Belgium • 16-18 March 2009



Singapore City, Singapore •  
25-26 March 2009



Sao Paulo, Brazil • 23-24 April 2009



July 2009

### Media Partners:



**Green Power Conferences** consistently work in strategic partnership with industry leading organisations and trade publications. Our international and targeted marketing campaigns ensure excellent marketing exposure for our partners. If you would like to partner with us, please contact [maria.augestad@greenpowerconferences.com](mailto:maria.augestad@greenpowerconferences.com)



**Green Power Conferences** was established in 2003 by a team of professional, environmentally aware event experts and were the first to offer professionally organised events focusing on the sustainability sector. Over the last five years, we have welcomed over 6000 delegates from 82 countries and built a global database of 175,000+ contacts. Our expertise lies in producing high quality, interactive conferences that provide ample networking opportunities for delegates and partners alike. Green Power Conferences offsets the impacts of its commercial activities towards renewable energy projects.

If you would like to partner with us, please contact [maria.augestad@greenpowerconferences.com](mailto:maria.augestad@greenpowerconferences.com)

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**2 Day Conference:**

**3 Day Package:** 2 Day Conference + Workshop

**Workshop Only:**

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Register 3 delegates, only pay for 2

#### Standard Rate

€1499 + 21% BTW = €1813.79

€1999 + 21% BTW = €2418.79

€799 + 21% BTW = €966.79

#### Non-profit Rate

€1199 + 21% BTW = €1450.79

€1599 + 21% BTW = €1934.79

€639 + 21% BTW = €773.19

**NOTE:** Non Profit Rates are available for registered NGO's, government representatives and non profit organisations only.

Discounts are at the discretion of Green Power Conferences and proof of status may be requested.

### Delegate Details

	Name	Job Title	Telephone	Business email
1				
2				
3				

### Company Details

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**Bank Address:** Herrengasse 12, FL-9490 Vaduz, Liechtenstein  
**Account Name:** GP Conferences Ltd  
**Account Number:** 0192568AD  
**Swift Code:** BL FL LI 2X  
**IBAN:** LI690881 00000 192568AD

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**Cancellations:** If you cancel before January 26, 2009, you will receive a refund less €250 administration charge. We regret that no cancellations can be accepted after this date. Substitutions are welcome at any time.

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### Venue

**Venue:** Renaissance Brussels Hotel  
 Rue du Parnasse, Brussels, Belgium  
 Tel: 00 32 2 505 29 29

Registered delegates will be sent suggested accommodation details.