



Central European Biomass Conference

15th to 18th January 2014
Graz, Austria

Programme

4th Central European Biomass Conference



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Graz to become the biomass capital of Europe



Bioenergy has become very important to European countries in the achievement of their development goals for 2020 in compliance with the EU's Renewables Directive. Biomass accounts for a share of 62% in the renewable energies used in gross end energy consumption within the EU. The planned growth of around 2,200 PJ (+63%) by 2020 is higher than that for all other renewable sources of energy put together. But the EU commission is currently discussing the subsidisation of nuclear energy and new bureaucratic obstacles for the production of bioenergy, which run in opposition to plans to increase the use of renewables.

Energy policies within Europe will therefore appropriately be one of the topics that the **4th Central European Biomass Conference** will be focusing on. The conference will also be concentrating on the significance of bioenergy to the European economy. Because the utilisation of biomass is not only creating jobs but will also help reduce the extremely high costs caused by climate change through the prevention of greenhouse-gas emissions.

The **4th Central European Biomass Conference** will, of course, also be providing a comprehensive overview of technological developments in how biomass is utilised to generate energy throughout Europe. Fifteen presentation blocks will guarantee an extraordinarily broad scope of topics ranging from bioheating through the logistics and processing of fuel to energy plants and new markets for biomass products.



Horst Jauschnegg
Chairman of the ABA,
Chairman of the
Organising Committee



Werner Brugner
Director of the Styrian
Chamber for Agriculture
and Forestry



Thomas Klein
Managing Director of
Bioenergy 2020+ GmbH



Ingmar Höbarth
Managing Director of the
Climate and Energy Fund

Global pellet production has increased tenfold since 2000.

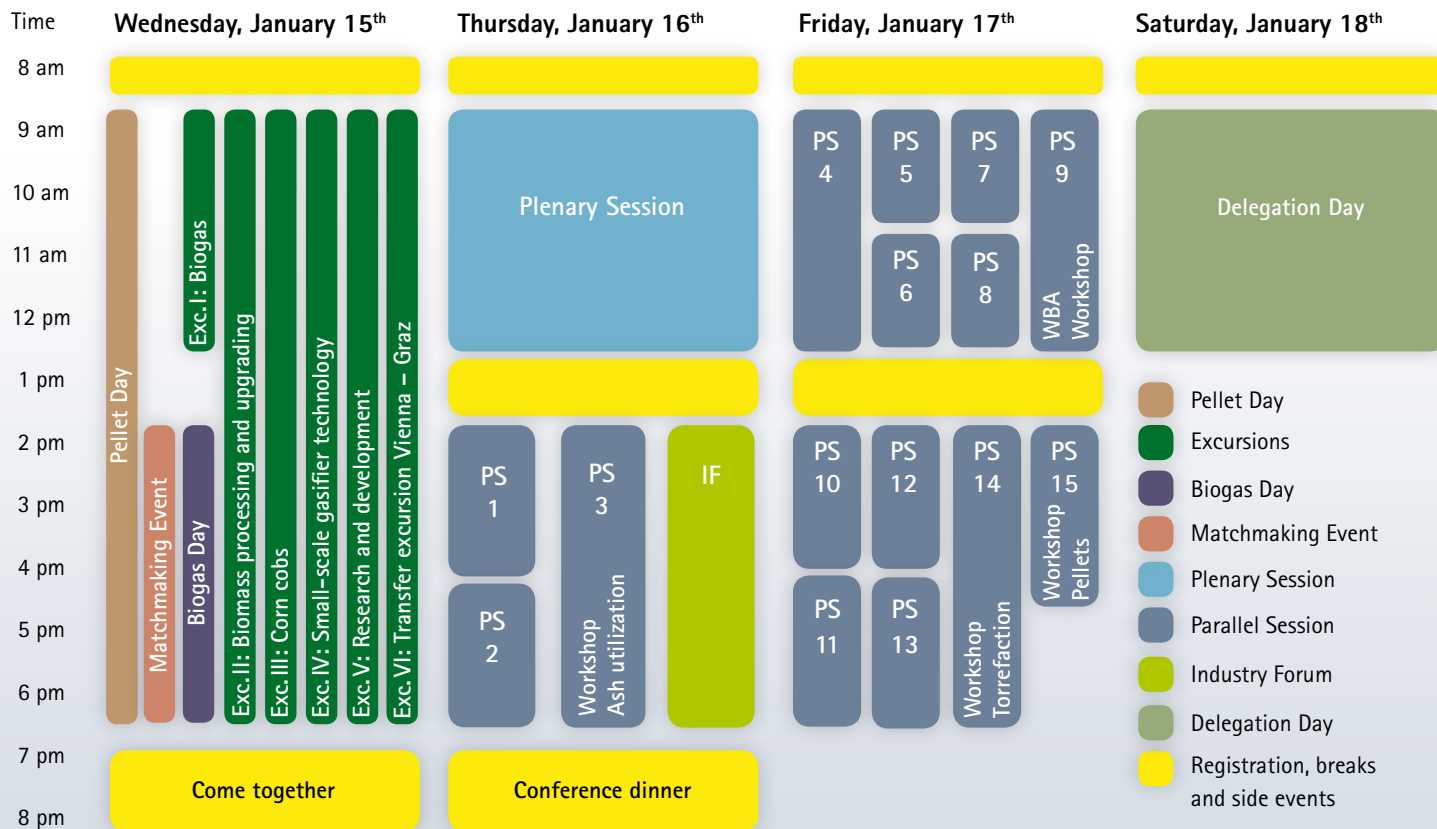
The 1st Central European Pellet Day, to take place on 15th January 2014, and a half-day workshop will be specifically dedicated to this fuel. Workshops focusing on the use of ash and torrefaction will also be held. A separate biogas day will constitute a special highlight. Six excursions to showcase biomass projects will focus, among other things, on the harvesting, processing and refinement of new biogenic raw materials. Leading manufacturers will also be presenting new developments at the Industry Forum.

The **4th Central European Biomass Conference** will, of course, constitute an excellent platform for the exchange of information and experiences as well as for networking. The workshops, B2B meetings and the conference dinner will offer plenty of opportunities in this regard. The Matchmaking Event (Biomass Business Talks), for instance, is a cooperation exchange for companies and organisations.

Graz is the capital of Styria, the green heart of Austria and a region that is pioneering bioenergy technologies. It will become Europe's biomass capital for the fourth time from 15th to 18th January. We are expecting more than 1,000 participants from over 50 countries to attend the event.

We are looking forward to having the pleasure of welcoming you to the **4th Central European Biomass Conference** in Graz.

Programme of the 4th Central European Biomass Conference in 2014



Programme overview



Wednesday
15
January

7:00–9:00 am **Registration**

8:00 am–12:30 pm **Excursion I**,
p. 6

8:00 am–6:30 pm **Excursion II–VI**,
p. 6–7

9:00 am–6:00 pm **1st Central
European Pellet Day**, p. 9
Resources meet markets

12:00–1:00 pm **Registration**

2:00–6:00 pm **Biogas Day**, p. 11
New paths and growing markets

2:00–6:00 pm **Matchmaking Event**
Biomass Business Talks, p. 13

6:30 pm **Come together**

Thursday
16
January

7:30–9:00 am **Registration**

9:00 am–12:30 pm
Plenary Session, p. 15
Energy policy in Europe

12:30–2:00 pm **Lunch break and
poster presentation**

2:00–4:00 pm **PS 1**, p. 16
Heat from biomass: Small scale

4:30–6:30 pm **PS 2**, p. 16
**Heat from biomass: Industrial
scale**

1:30–6:30 pm **PS 3**, p. 17
Workshop Biomass ash utilization

2:00–6:30 pm **Industry Forum**,
p. 19
Biomass, biogas and biofuels,
following **Get together**

8:00 pm **Conference dinner**

Friday
17
January

8:00–9:00 am **Registration**

9:00 am–12:00 pm, **PS 4**, p. 20
Electricity from solid biomass

9:00–10:30 am **PS 5**, p. 21
Biorefineries

11:00 am–12:30 pm **PS 6**, p. 21
Biofuels

9:00–10:30 am **PS 7**, p. 23
Fuel logistics and processing

11:00 am–12:30 pm **PS 8**, p. 23
**Biomass heat: Simulation and
efficiency optimization**

9:00 am–12:30 pm **PS 9**, p. 25
WBA Workshop:
Global markets for biomass

12:30–2:00 pm **Lunch break and
poster presentation**

2:00–4:00 pm **PS 10**, p. 26
Energy plants

4:30–6:30 pm **PS 11**, p. 26
**Fuel characterisation and energy
crops**

2:00–4:00 pm **PS 12**, p. 27
Biomass potentials

4:30–6:30 pm **PS 13**, p. 27
Biogas

2:00–6:30 pm **PS 14**, p. 28
Workshop Torrefaction of biomass

2:00–4:30 pm **PS 15**, p. 29
Workshop Pellets

Delegation Day

On Saturday, the 18th of January, there will be an individual programme for international delegations. Registration: office@biomasseverband.at

Excursions

Excursion I

Biogas

8:00 am Departure Graz

9:30 am **Biogas plant Uidl, Halbenrain**

- Application and processing of maize straw

12:30 pm Arrival Graz

Excursion II

Provision, processing and upgrading of biomass

8:00 am Departure Graz

9:00 am **Torrefaction pilot plant Andritz, Frohnleiten**

10:45 am **Komptech, Frohnleiten**

- Producer of wood chippers, shredders and separators

1:00 pm **Lunch break**

2:30 pm **Biowärme Leoben Hinterberg**

- Wood energy contracting Brücklwirt Leoben

3:00 pm **Biomass courtyard Leoben, Niklasdorf**

- Quality assurance, logistics, sales

- Wood chipper in action

6:30 pm Arrival Graz

Excursion III

Corn cobs

8:00 am Departure Graz

9:30 am **Franz Tschigge, Halbenrain**

- Harvesting technology, basics
- Thermal and material use of corn cobs
- Seed-drying with corn cobs

11:30 am **Verein Heu und Pellets**

- Pelletizing of hay and corn cobs

1:00 pm **Lunch break**

2:30 pm **Biomass heating plant Scheer**

- Use of corn cobs and wood chips

4:30 pm **Corn cobs pellets combustion with a scroll burner**

- Thermal use of corn cob pellets

6:30 pm Arrival Graz

Wednesday
15
January



Excursions

Excursion IV

Small gasifier technology, wood gas CHP

8:00 am Departure Graz

9:00 am **Wood gas CHP Unterpremstätten**

- REP Christoph Group

- Wood gas power plant with 13kW_{el} and 31kW_{th}

12:00 pm **Lunch break**

1:30 pm **Cleanstgas® GmbH, St. Margarethen/Raab**

- Developer of medium-scale wood gasification power plants

3:30 pm **KWB – Kraft und Wärme aus Biomasse GmbH,**

St. Margarethen/Raab

- Manufacturer of biomass heating systems for pellets, wood chips and firewood

6:30 pm Arrival Graz

Excursion V

Research and development

8:00 am Departure Graz

9:00 am **Sattler AG, Rudersdorf**

- Storage concepts for residues from biogas, manure and fermentation

12:00 pm **Lunch break**

1:30 pm **Josef Binder Maschinenbau- und HandelsgesmbH.,**

Bärnbach

- Manufacturer of biomass boilers

2:30 pm **ICON – Flue gas condensation in combination with an industrial heat pump, BIOS/Scheuch/Ochsner/AIT, Bärnbach**

4:00 pm **Bioenergy 2020+ GmbH, Institute for**

Process and Particle Engineering, TU Graz &

BIOS Bioenergiesysteme GmbH, Graz GmbH, Graz

6:30 pm Arrival Graz

Excursion VI

Transfer excursion Vienna – Graz

8:00 am Departure Vienna International Airport

8:30 am **Energy park Bruck an der Leitha**

10:30 am **EVM Energie Versorgung Margarethen**

am Moos GmbH

1:00 pm **Lunch break**

2:30 pm **Polytechnik, Weissenbach**

- Producer of modern biomass boilers

- Biomass CHP

6:30 pm Arrival Graz

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Attention: The excursions I to V start from the parking lot at Messe Graz

Excursion VI starts at Vienna International Airport, bus platform arrivals/level 0

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1st Central European Pellet Day



„The Pellet Day is the first international event dedicated to establishing contacts between businesses in Eastern European countries with significant resources for pelletizing and major consumer markets.“

Christian Rakos, President of the European Pellet Council & General Manager of proPellets Austria

Chairman: Christian Rakos

Current situation and outlook for pellet production and use in Central and Eastern Europe

9:00 am **Opening**

9:20 am **Pellet market in Poland**

Ludmila Wach, *Baltic Energy Conservation Agency, Gdansk, Poland*

9:40 am **Pellet market in Czech Republic**

Vladimír Stupavský, *Chairman Czech Pellets Cluster, Czech Republic*

10:00 am **Pellet market in Hungary**

Illés Jancsó, *Vice-president Hungarian Pellet Association, Hungary*

10:20 am **Pellet market in Croatia**

Marijan Kavran, *Secretary General Croatian Wood Cluster, Delnice, Croatia*

10:40 am **Coffee break**

11:15 am **Pellet market in Serbia**

Branko Glavonjic, *University of Belgrade, Faculty of Forestry, Belgrade, Serbia*

11:35 am **Pellet market in Ukraine**

Tetiana Ignatenko, *Secretary General Ukrainian Pellet Union, Kiev, Ukraine*

11:55 am **Pellet market in Romania**

Dorin Sfaca, *President of Romanian Pellet & Wood Briquettes Association, Bucharest, Romania*

12:15 pm **Pellet market in Bulgaria**

Vasil Zlatev, *Energy Agency of Plovdiv, Plovdiv, Bulgaria*

12:35 pm **Pellet market in Greece**

Ioannis Eleftheriadis, *Centre for Renewable Energy Sources and Saving, Biomass dept., Pikermi Attiki, Greece*

1:00 pm **Lunch Break**

Current market situation in major consumer markets

2:00 pm **Pellet market in Germany**

Martin Bentele, *General Manager German energy wood and wood pellet association (DEPV), Berlin, Germany*

2:20 pm **Pellet market in Austria**

Christian Rakos, *President European Pellet Council & General Manager proPellets Austria, Wolfgraben, Austria*

2:40 pm **Pellet market in Italy**

Annalisa Paniz, *Italian Agriforestry Energy Association Legnaro (AIEL), Padua, Italy*

3:00 pm **Coffee break**

Quality requirements and ENplus certification

3:30 pm **Quality requirements for pellets and consequences for pellet production**

Martin Englisch, *General Manager BEA Bioenergy Anlagenplanung GmbH, Vienna, Austria*

4:00 pm **The ENplus Certification – How to get certified?**

Procedures, costs and license rights

Gilles Gauthier, *Secretary General European Pellet Council & Bioenergy Expert, AEBIOM Brussels, Belgium*

4:30 pm **Pellets B2B Meeting**

Wednesday
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January



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Biogas Day



„The combination of theory and practise is a great opportunity to see modern techniques in use and to follow the latest developments in the sector of biogas.“

Norbert Hummel, Vice-Chairman
of ARGE Compost & Biogas Austria

Chairman:

Bernhard Stürmer, *Bernhard Stürmer, ARGE Compost & Biogas Austria, Vienna, Austria*

2:00 pm **Opening**

- Horst Jauschnegg, *Chairman of the Austrian Biomass Association, Vienna, Austria*
- Norbert Hummel, *Vice-Chairman of ARGE Compost & Biogas Austria, Vienna, Austria*

2:10 pm **Potentials for biogas from agricultural solid waste – requirements for technical implementation and operation**

Andreas Gronauer, *Vienna University of Natural Resources and Applied Life Sciences, Division of Agricultural Engineering, Vienna, Austria*

2:30 pm **Biogas from intercropping: achievable returns and practical implementation**

Manfred Szerencsits, *Ökocluster, Hitzendorf, Austria*

2:50 pm **Fermentation of biomass from micro algae**

Markus Gruber, *Bioenergy2020+ GmbH, Graz, Austria*

3:10 pm **Organic waste treatment: a case study**

Doris Thamer, *Andritz AG, Graz, Austria*

3:30 pm **Pretreatment methods for biogas plants**

Günther Bochmann, *Vienna University of Natural Resources and Applied Life Sciences, Vienna, Austria*

3:50 pm **Coffee break**

4:20 pm **Biowaste utilisation for the production of biomethane in five European cities – the Urban Biogas Project**

Dominik Rutz, *WIP - Renewable Energies, Munich, Germany*

4:40 pm **Biomethane – system solution for the future**

Reinhard Schultz, *Biogasrat, Berlin, Germany*

5:00 pm **Economic efficiency of biogas in the flexible electricity generation**

Sebastian Auburger, *University of Hohenheim, Hohenheim, Germany*

5:20 pm **Efficient and sustainable fertilization strategies with digestates**

Beate Formowitz, *Technology and Support Centre in the Centre of Excellence for Renewable Resources (TFZ), Straubing, Germany*

5:40 pm **Benchmarking for biogas plants – the Austrian approach**

Bernhard Stürmer, *ARGE Compost & Biogas Austria, Vienna, Austria*

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In German only



The presentations will be held in German only without simultaneous translation.



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Matchmaking Event: Biomass Business Talks

The 4th Central European Biomass Conference is an international conference on political and technical developments in the field of bioenergy. After very successful bilateral B2B meetings in 2011 involving 80 companies and research institutes from 16 countries, a Matchmaking Event will again be organised as part of the programme for this high level experts' congress. This Matchmaking Event for technology, expertise and business cooperation is an opportunity to meet business partners, bioenergy experts or research institutions and to conduct individual meetings on topics such as:

- Business cooperation
- Joint technology development
- Research and knowledge transfer
- Licence, commercial and financial agreements

Are you looking for an innovative technology, R&D project or specialist profile, or do you have one to offer? Simply register online and fill in the details regarding your organisation and the technology you offer or seek. All profiles will be published online and can be viewed by any participant in the Matchmaking Event. In this way you will receive details before the event regarding with whom you will meet and who wishes to speak with you.

Key dates

Registration deadline: 2 January 2014

Book meetings: from 3 January to 12 January 2014

Matchmaking Event: 15 January 2014, 2:00–6:00 pm

For more details and registration please visit

www.b2match.eu/energydaysgraz2014

www.cebc.at/en

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Free entrance!

Participation in the Matchmaking Event is free of charge. An admission ticket for the CEBC is not necessary.



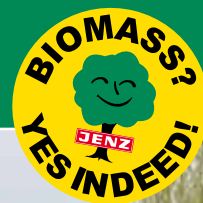
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Plenary Session

Energy policy in Europe

Thursday
16
January

Chairman:

Ingmar Höbarth, *Climate and Energy Fund, Vienna, Austria*

9:00 am **Welcome and Opening**

- Siegfried Nagl, *Mayor of the city of Graz, Graz, Austria*
- Johann Seitinger, *Member of the Provincial Government, Graz, Austria*
- Gerhard Wlodkowski, *President of the Austrian Chamber of Agriculture, Vienna, Austria*

9:15 am **The importance of bioenergy for climate protection and the national economy**

Nikolaus Berlakovich, *Federal Minister for Agriculture and Forestry, Environment and Water Management, Vienna, Austria**

9:50 am **Change to renewable energies in difficulties?**

Franz Alt, *Journalist and author, Baden-Baden, Germany*

10:15 am **Flight altitude reached! Destination still open – the latest climate report of the IPCC**

Georg Kaser, *University of Innsbruck, Institute of Meteorology and Geophysics, & coauthor of the IPCC report, Innsbruck, Austria*

10:45 am **Coffee break**

11:15 am **The role of bioenergy in the context of „100% renewable“**

Gustav Melin, *Chairman of the European Biomass Association, Stockholm, Sweden*

11:40 am **Material versus energetic use of biomass?**

Horst Jauschnegg, *Chairman of the Austrian Biomass Association, Vienna, Austria*

12:05 pm **Renewable energy thanks to ecosocial tax reform**

Stephan Pernkopf, *Member of the Provincial Government, St. Pölten, Austria & President of the Ecosocial Forum, Vienna, Austria*

12:30–2:00 pm **Lunch break and poster session**



* invited

Parallel Session 1

Heat from biomass: Small scale

Chairman:

Hans Hartmann, *Technology and Support Centre in the Centre of Excellence for Renewable Resources (TFZ), Straubing, Germany*

2:00 pm The role of biomass in achieving the EU's objectives in space heating and cooling

Lukas Kranzl, *The Vienna University of Technology, Vienna, Austria*

2:25 pm Particulate matter emissions from residential wood combustion – measurement methods and harmonization

Torsten Schröder, *Deutsches Biomasse Forschungszentrum (DBFZ) gemeinnützige GmbH, Leipzig, Germany*

2:50 pm BioCat – Clean air technology for small-scale combustion systems

Marius Wöhler, *Bioenergy 2020+ GmbH, Wieselburg-Land, Austria*

3:15 pm Carbon-monoxide-based combustion control of small-scale firing systems

Jan Bischof, *Institute of Combustion and Power Plant Technology – IFK, Stuttgart, Germany*

3:40 pm Straw as a fuel – technical challenges that have been solved

Jan Habart, *CZ Biom, Prague, Czech Republic*

Parallel Session 2

Heat from biomass: Industrial scale

Chairman:

Jaap Koppejan, *IEA Task 32, Procede Biomass BV, Enschede, Netherlands*

4:30 pm klima:aktiv award for heating plants, planners and quality controllers

5:00 pm Operating experience from Austria's first sewage sludge mono combustion plant

Andreas Glatzer, *KALEGO Anlagenbau GmbH, Leobersdorf, Austria*

5:20 pm Solid biomass combustion in bubbling fluidized bed and grate furnaces – comparison based on practical experiences

Thomas Strasser, *Josef Bertsch GmbH & Co. KG, Bludenz, Austria*

5:40 pm Optimizing heat recovery from biomass plants by integrating heat pumps

Kenneth Hoffmann, *GEA Refrigeration Technologies, EE 's-Hertogenbosch, Netherlands*

6:00 pm Optimized district heating network utilization and increased efficiency through decentralized heat storage

Erwin Reisenhofer, *BIOS Bioenergiesysteme GmbH, Graz, Austria*

6:20 pm Increasing the sustainability of steel production by using biochar

Tim Reichel, *RWTH Aachen, Aachen, Germany*



Parallel Session 3

Workshop Biomass ash utilization

Chairman:

Ingwald Obernberger, *BIOS Bioenergiesysteme GmbH, Graz, & TU Graz, Austria*

1:30 pm **Opening**

1:40 pm **Overview of biomass ash utilization in Austria and legal constraints**

Rainer Handl, *Kooperationsplattform Forst Holz Papier (FHP), Vienna, Austria*

2:00 pm **Biomass ash utilization as a binder in road construction**

Klaus Supancic, *BIOS Bioenergiesysteme GmbH, Graz, Austria*

2:20 pm **Biomass ash utilization in forest road construction**

Gerald Bohrn, *Vienna University of Natural Resources and Applied Life Sciences, Vienna, Austria*

2:40 pm **Ecological evaluation of ash/soil mixtures in road construction**

Eva Oburger, *Vienna University of Natural Resources and Applied Life Sciences, Tulln, Austria*

3:00 pm **Biomass ash utilization in low level roads in Sweden**

Josef Macsik, *Ecloop AB, Stockholm, Sweden*

3:20 pm **Biomass ash utilization in high level roads in Finland**

Pentti Lahtinen, *Ramboll, Luopioinen, Finland*

4:00 pm **Coffee break**

4:20 pm **Biomass ash as raw material for cement manufacturing**

Bjarte Oye, *SINTEF Materials and Chemistry, Trondheim, Norway*

4:40 pm **Conversion and leaching characteristics of biomass ashes during outdoor storage**

Klaus Supancic, *BIOS Bioenergiesysteme GmbH, Graz, Austria*

5:00 pm **Biomass ash utilization as a fertilizer for short rotation coppice**

Heinrich Holzner, *Styrian Chamber for Agriculture and Forestry, Graz, Austria*

5:20 pm **Wood ash recycling – an appropriate measure to close nutrient cycles in forests**

Klaus von Wilpert, *Forstliche Versuchs- und Forschungsanstalt Baden-Württemberg, Freiburg, Germany*

5:40 pm **Roll pelletizing of ash**

Linnea Lövgren, *Pöyry Sweden AB, Falun, Sweden*

6:00 pm **Panel discussion**

6:30 pm **Closing remarks by the chairman**



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Industry Forum

Biomass, biogas and biofuels

Chairman:

Gerold Thek, *BIOS Bioenergiesysteme GmbH, Graz, Austria*

In the Industry Forum national and international companies active in the fields of biomass, biogas and biofuels will present their core competencies, activities and relevances in a short presentation. In the subsequent „Get together“-discussion forum the participants have the chance to meet members of the presented companies and can initiate possible future projects and cooperations on an individual basis. The Industry Forum is open to all conference participants.

2:00 pm **Opening chairman**

2:05 pm **Andritz AG**, Doris Thamer

2:10 pm **Komptech GmbH**, Andreas Kunter

2:15 pm **Neuson Ecotec GmbH**, Christian Richter

2:20 pm **Josef Bertsch Gesellschaft m.b.H. & Co KG**, Thomas Strasser

2:25 pm **Schmid energy solutions GmbH**, Bernd Hörzer & Josef Strohmeier

2:30 pm **Polytechnik Luft- und Feuerungstechnik GmbH**, N.N.

2:35 pm **Spanner Re² (Renewable Energy Experts) GmbH**, Thomas Bleul

2:40 pm **Scheuch GmbH**, Franz Söllhinger

2:45 pm **K. Schröder Nachf.**, Christoph Schade

2:50 pm **OekoSolve AG**, Daniel Jud

2:55 pm **Ochsner Wärmepumpen GmbH**, Karl Ochsner

3:00 pm **Bioenergy 2020+ GmbH**, Walter Haslinger



Thursday
16
January

3:05 pm **BIOS Bioenergiesysteme GmbH**, Peter Thonhofer

3:10 pm **SW-Energietechnik-GmbH**, Walter Sailer

3:15 pm **Siemens AG Österreich**, Volker Hirsch

3:20 pm **Thermaflex – Flexalen Rohr- und Isoliersysteme GmbH**, Artur Klos

3:25 pm **Flowtec Industrietechnik GmbH**, Peter Pauritsch

3:30 pm **Clariant Produkte (Deutschland) GmbH**, Beate Arendt

3:35 pm **GE-Provi Global Energy Provision**, Johannes Wittkowsky

3:40 pm **Closing remarks by the chairman**

3:45 pm **Discussion forum: Get together (including coffee break)**

6:30 pm **End of the event**

Discussion forum: get together

This discussion forum will offer the opportunity for participants to contact representatives of the presented companies and to discuss possible future projects and cooperations. For individual discussions in relaxed atmosphere each company will have its own stand next to the hall, where the company presentations take place, equipped with chairs and tables, where coffee and refreshments will be served. These information stands will be available on both main days of the conference (16th and 17th of January).



Parallel Session 4

Electricity from solid biomass

Friday
17
January

Chairman:

Ingwald Obernberger, *BIOS Bioenergiesysteme GmbH, Graz, & TU Graz, Austria*

9:00 am **SUNSTORE 4: CHP plant based on a hybrid biomass and large-scale solar system – monitoring results**

Alfred Hammerschmid, *BIOS Bioenergiesysteme GmbH, Graz, Austria*

9:20 am **Theoretical analysis of the potential of hybrid biomass-solar CHP plants in Austria**

Roland Sterrer, *University of Applied Sciences Technikum Wien, Vienna, Austria*

9:40 am **Cleanstgas – Market entry and demonstration of a staged biomass gasification technology**

Stephan Jantscher, *Cleanstgas GmbH, St. Margarethen/Raab, Austria*

10:00 am **Combined heat and power using wood gas – experience from practical operation and future prospects**

Thomas Bleul, *Spanner Re² GmbH, Neufahrn i. NB., Germany*

10:20 am **Coffee break**

10:40 am **Comparability of field measurement data for the technical assessment of biomass gasification plants**

André Herrmann, *Deutsches Biomasse Forschungszentrum (DBFZ) gemeinnützige GmbH, Leipzig, Germany*

11:00 am **Measuring the performance of biomass small-scale gasification plants by implementing mass and energy balances**

Marco Baratieri, *Free University of Bolzano, Faculty of Science and Technology, Bolzano, Italy*

11:20 am **Technological, economic and ecological evaluation of small-scale biomass gasifier**

Martin Zeymer, *Deutsches Biomasse Forschungszentrum (DBFZ) gemeinnützige GmbH, Leipzig, Germany*

11:40 am **Economics and potentials of wood gasification CHP plants in the Austrian sawmill industry**

Gerald Kalt, *Austrian Energy Agency, Vienna, Austria*

12:00 pm **Closing remarks by the chairman**

12:10–2:00 pm **Lunch break and poster session**

Parallel Session 5

Biorefineries

Chairman:

Arthur Wellinger, *IEA Bioenergy, Aadorf, Switzerland*

9:00 am **The possible role of biorefineries in a BioEconomy – activities of IEA Bioenergy Task 42 „Biorefining“**

Gerfried Jungmeier, *Joanneum Research Forschungsgesellschaft mbH, Graz, Austria*

9:20 am **Green Chemistry Belt: an integrative concept for the use of bio-based raw materials in the Danube region and their increasing importance for Europe's chemical industry**

Thomas Schleker, *BioCampus Straubing GmbH, Straubing, Germany*

9:40 am **Biomass gasification Oberwart – production of heat, electricity and valuable gases**

Reinhard Rauch, *Bioenergy 2020+ GmbH, Güssing, Austria*

10:00 am **KACELLE: Economic and ecological evaluation of a lignocellulose-based ethanol plant with Inbicon technology**

Konstantin Zech, *Deutsches Biomasse Forschungszentrum (DBFZ) gemeinnützige GmbH, Leipzig, Germany*

10:20 am **Closing remarks by the chairman**

10:30 am **Coffee break**

Parallel Session 6

Biofuels

Chairman:

Reinhard Rauch, *Technical University of Vienna, Vienna, Austria*

11:00 am **BTG BioLiquids**

Gerhard Muggen, *BTG BioLiquids BV, AV Enschede, Netherlands*

11:20 am **BioBoost: Biomass based energy intermediates boosting biofuel production**

Andreas Niebel, *Karlsruhe Institute of Technology, Karlsruhe, Germany*

11:40 am **Location and capacity planning of straw-based BtL plants in Austria**

Tobias Moser, *Vienna University of Natural Resources and Applied Life Sciences, Vienna, Austria*

12:00 pm **Novel insights into the stability of petrodiesel and biodiesel fuels**

Stephanie Flitsch, *University of Graz, Graz, Austria*

12:20 pm **Closing remarks by the chairman**

12:30–2:00 pm **Lunch break and poster session**



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Parallel Session 7

Fuel logistics and processing

Chairman:

Nikolaus Nemestothy, *Forstliche Ausbildungsstätte Ort, Ort/Gmunden, Austria*

9:00 am **How will climate change impact on forest fuel supply in Austria?**

Peter Rauch, *Vienna University of Natural Resources and Applied Life Sciences, Institute of Production and Logistics, Vienna, Austria*

9:20 am **Technical drying of wood chips – unprofitable?**

Alois Kraußler, *FH Joanneum Gesellschaft mbH, Kapfenberg, Austria*

9:40 am **Alternative biomass fuels**

Andreas Kunter, *Komptech GmbH, Frohnleiten, Austria*

10:00 am **Biomass markets – the „eBay“ for regional energy resources**

Josef Walch, *FHS für Wirtschaft und Technik GmbH, Wieselburg, Austria*

10:20 am **Closing remarks by the chairman**

10:30 am **Coffee break**

Parallel Session 8

Heat from biomass: Simulation and efficiency optimization



Chairman:

Anders Evald, *Force Technology, Lyngby, Denmark*

11:00 am **Transient CFD simulation of wood log stoves with heat storage devices**

Claudia Benesch, *BIOS Bioenergiesysteme GmbH, Graz, Austria*

11:20 am **Thermal simulation of a pellet boiler and a heat storage tank for future control strategies**

Rosemarie Schnetzinger, *Bioenergy 2020+ GmbH, Wieselburg-Land, Austria*

11:40 am **Identification and evaluation of optimization measures to increase the annual utilization rate of residential biomass heating systems**

Klaus Supancic, *BIOS Bioenergiesysteme GmbH, Graz, Austria*

12:00 pm **Investigation of user behaviour and operating conditions of residential wood combustion (RWC) appliances and their impact on emissions and efficiency**

Gabriel Reichert, *Bioenergy 2020+ GmbH, Wieselburg-Land, Austria*

12:20 pm **Closing remarks by the chairman**

12:30–2:00 pm **Lunch break and poster session**

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Parallel Session 9

WBA Workshop

Global markets for biomass

Friday
17
January



„In many parts of the world a strong growing market in small-scale biomass heat and power can be noticed. In the WBA Workshop experts from five continents refer to this topic.“

Heinz Kopetz, President of the World Bioenergy Association

Chairman:

Heinz Kopetz, *World Bioenergy Association, Stockholm, Sweden*

9:00 am **New global pellet markets**

Silvio Mergner, *Pöyry Management Consulting (Deutschland) GmbH, Munich, Germany*

9:20 am **Current biofuel market and technology trends in the Russian Federation**

Tatiana Pantsyrnaya, *Moscow State University of Mechanical Engineering, Moscow, Russia*

9:40 am **Japan – energy policy after Fukushima:**

opportunities for micro-scale and small-scale biomass technologies

Hisashi Kajiyama, *Fujitsu research institute, Tokyo, Japan*

10:00 am **Korea, Australia, New Zealand: Market developments in small-scale bioenergy technologies**

Andrew Lang, *Vice President World Bioenergy Association & Smart Timbers Cooperative, Australia*

10:20 am **General discussion**

10:30 am **Coffee break**

11:00 am **Markets for small-scale and micro-scale bioenergy in North America**

Douglas Bradley, *Vice President World Bioenergy Association & President of Climate Change Solutions, Canada**

11:20 am **Future developments in the field of small-scale and micro-scale CHP**

John Bernander, *Viking Heat Engines AS, Kristiansand, Norway*

11:40 am **Possible market for micro-scale and small-scale biomass to heat and CHP in Latin America**

Laércio Couto, *Board Member World Bioenergy Association & President of RENABIO, Brazil**

12:00 pm **Markets for micro-scale and small-scale biomass heat and CHP in Europe**

Alexander Weissinger, *KWB, St. Margarethen/Raab, Austria*

12:20 pm **General discussion**

12:30–2:00 pm **Lunch break and poster session**

**invited*



Parallel Session 10

Energy plants

Chairman:

Manfred Wörgetter, *Bioenergy 2020+ GmbH, Wieselburg-Land, Austria*

2:00 pm **Short rotation: high expectations versus practical experience**
Johann Reicht, *Bioenergie Hitzendorf regGenmbH, Hitzendorf, Austria*

2:25 pm **The economics of SRC in agroforestry systems and small sliver surfaces in urban areas**
Christian Schmidt, *Nordwestdeutsche Forstliche Versuchsanstalt, Hann. Münden, Germany*

2:50 pm **Pre-treatment of wet biomass for fuel production – the florafuel-process**
Swantje Mignon Schlederer, *Universität der Bundeswehr München, Neubiberg, Germany*

3:15 pm **Nutrient accumulation and distribution in woody crops of eucalyptus nitens**
Andrea Hevia Cabal, *Forest Management Area, Wood and Forest Research Technology Centre of Asturias (CETEMAS), Grado, Spain*

3:40 pm **Development of high-density algal biomass production technology**
Tatiana Pantsyrnaya, *Moscow State University of Mechanical Engineering, Moscow, Russia*

Parallel Session 11

Fuel characterization and energy crops

Chairman:

Thomas Brunner, *Bioenergy2020+ GmbH, Graz, Austria*

4:30 pm **New characterization methods for solid biomass fuels**
Peter Sommersacher, *Bioenergy 2020+ GmbH, Graz, Austria*

4:50 pm **Results of new laboratory methods and slagging indices for the prediction and quantification of ash slagging**
Daniel J. Vega-Nieva, *University of Vigo, Pontevedra, Spain*

5:10 pm **Corn cobs for energy use – properties and challenges**
Josef Rathbauer, *BLT Biomass – Logistics – Technology, Wieselburg, Austria*

5:30 pm **Optimizing wood chip production in the field – fuel quality and energy consumption**
Daniel Kuptz, *Technology and Support Centre in the Centre of Excellence for Renewable Resources (TFZ), Straubing, Germany*

5:50 pm **Development of new concepts for the use of micro algae in Austria**
Andrea Sonnleitner, *Bioenergie 2020+ GmbH, Wieselburg, Austria*



Parallel Session 12

Biomass potentials

Chairman:

André P. C. Faaij, *Utrecht University, Utrecht, Netherlands*

2:00 pm **Regional biomass for heat and electricity supply in urban areas**

Carsten Keichel, *Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg, Germany*

2:30 pm **Trends in short-rotation plantations in Hungary**

Bálint Heil, *West-Hungarian University, Sopron, Hungary*

3:00 pm **Analysis and development of supply chains of firewood in Western Macedonia, Greece**

Chrysovalantis Ketikidis, *Centre for Research & Technology Hellas, Chemical Process and Energy Resources Institute (CERTH/CPERI), Ptolemais, Greece*

3:30 pm **Impacts of renewable energy on European farmers – potentials and perspectives for 2020**

J.W.A. Hans Langeveld, *Biomass Research, Wageningen, Netherlands*

Parallel Session 13

Biogas

Chairman:

Werner Fuchs, *Vienna University of Natural Resources and Applied Life Sciences, IFA-Tulln, Tulln, Austria*

4:30 pm **Exploring integrated concepts for energy production from green waste**

Luc Pelkmans, *VITO NV, Unit Separation and Conversion Processes, Mol, Belgium*

4:50 pm **Nitrogen removal with membrane contactors for improved anaerobic digestion under hydrogen sulphide and ammonia inhibition**

Benjamin Lauterböck, *Vienna University of Natural Resources and Applied Life Sciences, Institute of Environmental Biotechnology, IFA-Tulln, Tulln, Austria*

5:10 pm **Combination of dry anaerobic digestion, composting and energy exploitation of biogas for innovative utilization in a pilot plant**

Silvia Silvestri, *Fondazione Edmund Mach (FEM), San Michele all'Adige (TN), Italy*

5:30 pm **Buckwheat and quinoa as summer intercrops for biogas production**

Falco Stockmann, *Technology and Support Centre in the Centre of Excellence for Renewable Resources (TFZ), Straubing, Germany*

5:50 pm **Environmental evaluation of biogas production from intercropping**

Stephan Maier, *Technical University of Graz, Graz, Austria*



Parallel Session 14

Workshop Torrefaction of biomass

Friday
17
January

Chairmen:

Jaap Koppejan, *IEA Bioenergy Task 32, Enschede, Netherlands*

Martin Junginger, *IEA Bioenergy Task 40, Utrecht, Netherlands*

2:00 pm Opening

2:10 pm International overall view of developments in the torrefaction sector

Michael Wild, *International Biomass Torrefaction Council, Brussels, Belgium*

2:30 pm Densification of torrefied materials

Wolfgang Stelte, *Danish Technological Institute, Taastrup, Denmark*

2:50 pm Characteristics of torrefied products and their dependence on process conditions

Ute Wolfesberger-Schwabl, *OFI Technologie & Innovation GmbH, Vienna, Austria*

3:10 pm Advantages and drawbacks for international trade of torrefied products

Mark Beekes, *KEMA Nederland BV, Arnhem, Netherlands*

3:30 pm First experiences from large-scale combustion and co-firing tests with refined biomass fuels

Nader Padban, *Vattenfall, Stockholm, Sweden*

3:50 pm Coffee break

4:20 pm Andritz torrefaction technologies and summary of pilot plant operation in Austria and Denmark

Klaus Trattner, *Andritz AG, Graz, Austria*

4:40 pm Accelerating the adoption of second generation solid biomass

Andy Piers, *River Basin Energy, Highlands Ranch, Colorado, USA*

5:00 pm Areva's pathway to an industrially-proven torrefaction process

Natacha Kienlen, *Areva, Paris, France*

5:20 pm Round table: The way forward for technology suppliers, developers and consumers

6:15 pm Closing remarks by the chairman

IEA Bioenergy

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Partnership of 14 IEA Bioenergy Task 32
Task 40 members by 2015

Parallel Session 15

Workshop Pellets

Friday
17
January

Chairman:

Gilles Gauthier, *Secretary General European Pellet Council & bioenergy expert AEBIOM, Brussels, Belgium*

AshMelt

2:00 pm **Classification of slagging tendencies of biomass fuels**

Marcus Öhman, *Energy Engineering - Division of Energy Science, Luleå University of Technology, Luleå, Sweden*

2:15 pm **Ash melting behaviour of solid biofuels in residential pellet boilers**

Manuel Schwabl, *Bioenergy 2020+ GmbH, Wieselburg, Austria*

2:30 pm **Comparison of laboratory methods to characterise ash melting behaviour**

Jonas Dahl, *Danish Technological Institute, Taastrup, Denmark*

2:45 pm **Questions**

SafePellets

3:00 pm **Off-gassing – Safety issues related with emissions from wood pellets along the pellet supply chain**

Waltraud Emhofer, *Bioenergy 2020+ GmbH, Wieselburg, Austria*

3:15 pm **Current status from SafePellets on studies of self heating in biopellets storages**

Niels Peter Nielsen, *Danish Technological Institute, Taastrup, Denmark*

3:30 pm **The importance of standardization and certification for small-scale pellet producers**

Andreas Schneider, *Pusch AG, Marienrachdorf, Germany*

3:40 pm **Safety issues – impact on pellet industry**

Martin Behr, *German energy wood and wood pellet association (DEPV), Berlin, Germany*

3:50 pm **Questions**

4:00 pm **Discussion**

4:25 pm **Closing remarks by the chairman**

AshMelt
project



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Poster presentation

Selected conference contributions and projects will be presented within the scope of a poster presentation.

The exposition takes place in the foyer of the conference rooms and is accessible during the two days of lectures (16th and 17th January 2014).

Furthermore there will be individual poster sessions during the conference breaks where the authors of the posters will be available for further information and questions.

Thursday
16
January

12:30–2:00 pm
4:30–5:00 pm

Friday
17
January

12:30–2:00 pm
4:00–4:30 pm

Social programme

All conference participants and their companions are cordially welcome to participate in the evening and cultural programme:

Come together: Wednesday, 15th January 2014, 6:30 pm

Conference dinner: Thursday, 16th January 2014, 8:00 pm

Guided tour of Graz: Saturday, 18th January 2014, 2:00 pm

The conference dinner takes place in the auditorium of the Old University of Graz, Hofgasse 14, A-8010 Graz, and is the highlight of the social programme.

Trade fair

The „Häuslbauer“ trade fair for home builders from 16th to 19th January 2014 in Graz is the leading industrial trade show in the field of house construction and energy. One main emphasis of the trade fair is to present bioenergy equipment.

Exhibitors include biomass producers, biomass suppliers and distributors, manufacturers of biomass combustion technologies (e.g. wood-pellet, wood-chip and log-wood boilers, wood-pellet and log-wood stoves), manufacturers of biomass CHP technologies, R&D organisations as well as technical and financial consultancy. Visitors include house owners intending to install a new heating system as well as key decision-makers from governments, economy and industry.

Your ticket of the 4th Central European Biomass Conference is also valid for all areas of the „Häuslbauer“ trade fair!



Registration

Online

Register easily and quickly for the 4th **Central European Biomass Conference** on the Web. Please find the online registration form at: www.cebc.at/en/registration

Registration form

You can also simply fill in the attached registration form and send it by post to the Austrian Biomass Association, Franz Josefs-Kai 13, A-1010 Vienna, Austria, or by fax to: +43 (0)1-533 07 97-90.

Closing date

Friday, 10th January 2014

Bank details

Please transfer your conference contribution to our account by 10th January 2014 (it is absolutely necessary that you state your name):
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In case of local payment at the pay desk, a surcharge of 20% will be added. Please note that your registration is valid only if the registration fee is paid in full!

Conference fees



Conference programme

| | |
|---|-------|
| 1st Conference day, Pellet Day, 15 January 2014 | 200,- |
| (including conference proceedings, lunch, dinner and coffee breaks) | |
| 1st Conference day, Biogas Day, 15 January 2014 | 50,- |
| (including conference proceedings and coffee breaks) | |
| 2nd Conference day, 16 January 2014 | 250,- |
| (including conference proceedings, lunch and coffee breaks) | |
| 3rd Conference day, 17 January 2014 | 250,- |
| (including conference proceedings, lunch and coffee breaks) | |
| Combination Biogas Day 15 January 2014 | 90,- |
| (Biogas Day including lunch and excursion I) | |
| Combination 16 and 17 January 2014 | 390,- |
| Total package 15 to 17 January 2014 including Pellet Day | 590,- |
| (all conference days, excluding excursions and side events) | |
| Total package 15 to 17 January 2014 including Biogas Day | 440,- |
| (all conference days, excluding excursions and side events) | |

Excursions

| | |
|--|----------|
| Excursion I: 15 January 2014, 8:00 am – 12:00 pm | 30,- |
| Excursion II–VI: 15 January 2014, 8:00 am – 6:30 pm | per 60,- |

Side events

| | |
|---|------|
| Conference dinner: 16 January 2014, 8:00 pm | 45,- |
| Guided city tour in Graz: 18 January 2014, 2:00 pm | 10,- |

Discounts

| | |
|-------------------------------|-------------------------------|
| Students | (fee per conference day) 25,- |
| Group discount from 10 | 15% |

All prices in euro and including 20% VAT.

Conference information

Date

15th to 18th January 2014

Conference languages

German, English (simultaneous translation, except marked parts of the programme)

Registration

Wednesday, 15th January 2014, 7:00–8:30 am and
12:00–7:00 pm

Thursday, 16th January 2014, 7:30–9:00 am

Friday, 17th January 2014, 8:00–9:00 am

Organisation

Austrian Biomass Association

Franz Josefs-Kai 13

A-1010 Vienna, Austria

Tel: +43 (0) 1-533 0797-0

Fax: +43 (0) 1-533 0797-90

E-mail: office@biomasseverband.at

Website: www.biomasseverband.at

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Tel: +43 (0) 316-8075-0

Fax: +43 (0) 316-8075-15

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Website: www.graztourismus.at

Closing date: 22nd December 2013

Online hotel reservation form:

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Location

Messe Congress Graz, Messeplatz 1, 8010 Graz, Austria

Directions

www.messe-graz.at/en/messe/kontakt_14/anfahrt_14?changeLang=en



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Conference programme

- ☐ **1st Conference day, Pellet Day, 15 January 2014** 200,-
including conference proceedings, lunch, dinner and coffee breaks
- ☐ **1st Conference day, Biogas Day, 15 January 2014** 50,-
including conference proceedings and coffee breaks
- ☐ **Combination Biogas Day, 15 January 2014** 90,-
Biogas Day including lunch and excursion I
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including conference proceedings, lunch and coffee breaks
- ☐ **3rd Conference day, 17 January 2014** 250,-
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- ☐ **Combination 16 and 17 January 2014** 390,-
- ☐ **Total package 15 to 17 January 2014 including Pellet Day** 590,-
all conference days, excluding excursions and side events
- ☐ **Total package 15 to 17 January 2014 including Biogas Day** 440,-
all conference days, excluding excursions and side events

Excursions

- ☐ **Excursion I:** 15 January 2014, 8:00 am – 12:00 pm 30,-
- ☐ **Excursion II–VI:** 15 January 2014, 8:00 am – 6:30 pm per 60,-
Excursion II ☐ Excursion III ☐ Excursion IV ☐ Excursion V ☐ Excursion VI ☐

Side events

- ☐ **Conference dinner:** 16 January 2014, 8:00 pm 45,-
- ☐ **Guided city tour in Graz:** 18 January 2014, 2:00 pm 10,-

Discounts

- Students** (fee per conference day) 25,-
- Group discount from 10** 15%

My entire conference fee: _____ Euro

Please transfer your payment to our account before 10th January 2014. In case of payment directly at the conference desk there will be a surcharge of 20%. All prices are in Euro currency, 20% VAT included.

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Central European Biomass Conference

15th to 18th January 2014
Graz, Austria

Registration

An event of:



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