

WORLD BIOENERGY 2010

TAKING YOU FROM KNOW-HOW TO SHOW-HOW

25 - 27 MAY, JÖNKÖPING, SWEDEN

+ 24 AND 28 MAY, TRANSFER TOURS

FACTS FROM 2008

- Visitors:** 4,400, including 1,180 conference delegates
- Countries:** 60 (from all parts of the world)
- Exhibitors:** 200 (of which 49% foreign companies)
- Trade press:** 101 accredited journalists from 15 countries
- Study visits:** 100 visits to a range of different bioenergy sites
- Matchmaking:** 660 Matchmaking meetings
- 85% of exhibitors said exhibiting was satisfactory or better.
- 92% of exhibitors said their aims have been met with satisfaction or better.
- 83% of visitors rated the fair as good or very good.

SHOW GUIDE

Exhibition
Study visits
Conferences
Matchmaking
and more



WORLD BIOENERGY 2010

Conference & Exhibition on Biomass for Energy

25-27 MAY 2010, JÖNKÖPING - SWEDEN

WELCOME TO WORLD BIOENERGY 2010

The interest in commercially viable and environmentally sustainable bioenergy solutions is growing rapidly worldwide. World Bioenergy is the international forum that facilitates the transfer of bioenergy technology, know-how and experience with the unique concept of combining excellent presentations by key bioenergy persons with a large exhibition and numerous study visits showing bioenergy in practice.

Once again, Sweden and the city of Jönköping are proud to be the international bioenergy focal point by hosting the 4th edition of World Bioenergy, 25-27 May 2010.

World Bioenergy 2008 counted 4,400 unique visitors from 60 countries. 200 exhibiting companies were present in 170 stands and 1,180 persons participated in the conference and field excursions where 100 study visits were carried out to a range of different bioenergy sites - from biomass harvesting operations to production plants for heat, power and biofuels. 104 companies took part in the match-making in 660 different meetings.

Sweden has much to show

The theme of the conference is "Taking you from know-how to show-how". Sweden has much to show when it comes to modern bioenergy. The bioenergy sector has grown steadily since the 1970:ies. Last year biomass based energy surpassed oil as the major energy source for the Swedish energy use. **Bioenergy accounted for 31.7** percent of the final energy demand, whereas oil reached only 30.8 percent. Other fossil fuels play a very limited role in Sweden's energy balance. Together with hydropower, a limited amount of wind power, and heat pumps, the share of renewable energy was 46.3 percent in 2009. This is by far the highest share in EU.

In Sweden, bioenergy is used for heating, electricity production, in industry and in the transport sector. Sweden has a large experience of production and use of solid, gaseous and liquid biofuels.

We want to share our experiences, and hope they can be an inspiration to you.

Welcome to Sweden!

Patron of
World Bioenergy 2010



Photo: Eva-Marie Rundquist

His Majesty King Carl XVI
Gustaf of Sweden

Chair person of
World Bioenergy 2010



Photo: Johan Wingborg

Tomas Kåberger, Director
General, Swedish Energy
Agency

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Project managers Gustav Melin, Svebio and Jakob Hirsmark, Elmia, are looking forward to gathering the global pro's of bioenergy again at World Bioenergy 2010. Photo: Anders Haaker

PROGRAMME OUTLINE

| Monday 24/5 | Tuesday 25/5 | Wednesday 26/5 | Thursday 27/5 | Friday 28/5 |
|----------------|----------------------------|--------------------|--------------------------|--|
| 09.00 | OPENING PLENARY SESSION | CONFERENCE | CONFERENCE | |
| 11.00 | CONFERENCE | CONFERENCE | FINAL PLENARY SESSION | POST CONFERENCE TRANSFER TOURS <small>Dep. from Elmia 08:00</small> |
| 13.00 | LUNCH & EXHIBITION | LUNCH & EXHIBITION | LUNCH & EXHIBITION | |
| 15.00 | STUDY VISITS | STUDY VISITS | STUDY VISITS | |
| | SIDE EVENTS | SIDE EVENTS | SIDE EVENTS | |
| 17.00 | | | | |
| 18.00 | | | | |
| 19.00 | OFFICIAL DINNER | OPTIONAL DINNER | | |

PRE CONFERENCE TRANSFER TOURS
Dep. from Arlanda and Kastrup 09:00

EXHIBITION 09.00 - 17.00

EXHIBITION 09.00 - 17.00

EXHIBITION 09.00 - 16.00

ICE BREAKER

WWW.WORLDBIOENERGY.COM

REGISTRATION OPENING HOURS:

| | |
|------------------|-------------|
| Monday 24 May | 17.00-20.00 |
| Tuesday 25 May | 07.30-17.00 |
| Wednesday 26 May | 08.00-17.00 |
| Thursday 27 May | 08.00-16.00 |

EXHIBITION OPENING HOURS:

| | |
|------------------|-------------|
| Tuesday 25 May | 09.00-17.00 |
| Wednesday 26 May | 09.00-17.00 |
| Thursday 27 May | 09.00-16.00 |

What is World Bioenergy?

World Bioenergy is an international trade fair combined with an extensive conference programme and a large number of field trips, all focused on the biomass-to-energy sector. Organised every second year this major global bioenergy get-together is based on the unique "Taking you from Know-How to Show-How" concept, where academic research and developments blend with commercial experience providing a better business context.

The overall purpose of World Bioenergy is to promote the implementation of bioenergy technologies. By bringing together global expertise and know-how, World Bioenergy aims to show how we can implement a transition from fossil energy to bioenergy. Compared to conventional bioenergy conferences, World Bioenergy places much greater significance on the field excursions integrating them fully into the main programme. Why? Simply because when it comes to putting bioenergy and its potential into tangible context, actions speak far louder than words. Welcome to World Bioenergy!

Main sponsor:  **Göteborg Energi**

Göteborg Energi points out its major efforts in the bioenergy field

World Bioenergy is an excellent forum where the path to a sustainable society is discussed. As bioenergy is a key sector for us and our customers, it is natural for us to be the main sponsor for the event. It is also a way for us to point out our major efforts in the bioenergy field, where the GoBiGas is the largest project, says Anders Hedenstedt, Managing Director of Göteborg Energi.



OUTDOOR EXHIBITION



Hall A



THE TRADE FAIR – NEW RECORD!

The trade fair consists of one traditional indoor exhibition and one large outdoor area, where bioenergy machinery will be demonstrated in action. This is a living part, in which you can see, hear, smell and feel what bioenergy production in various ways are all about. This is also something that separates the World Bioenergy exhibition from most other exhibitions in this sector.

The exhibitors are mainly suppliers of equipment, fuels and services to the energy sector. Typical exhibitors are companies who deliver equipment for combined heat and power production, combustion, fuel production, refining of fuels or material handling. But there are also trade associations, embassies and government bodies, who want to get into contact with potential business partners for companies in their regions, countries or associations.

The trade fair has grown in size each year since the start, and this year will be no exception. The exhibition space is already larger than last time. For instance, the larger producers of forestry machinery are now entering the show. Bioenergy is becoming a mainstream product in forestry operations and the need for machinery for harvesting this biomass potential is expected to boom. In the outdoor area you will see demonstrations of such machines for harvesting and handling of woody biomass, among other things.

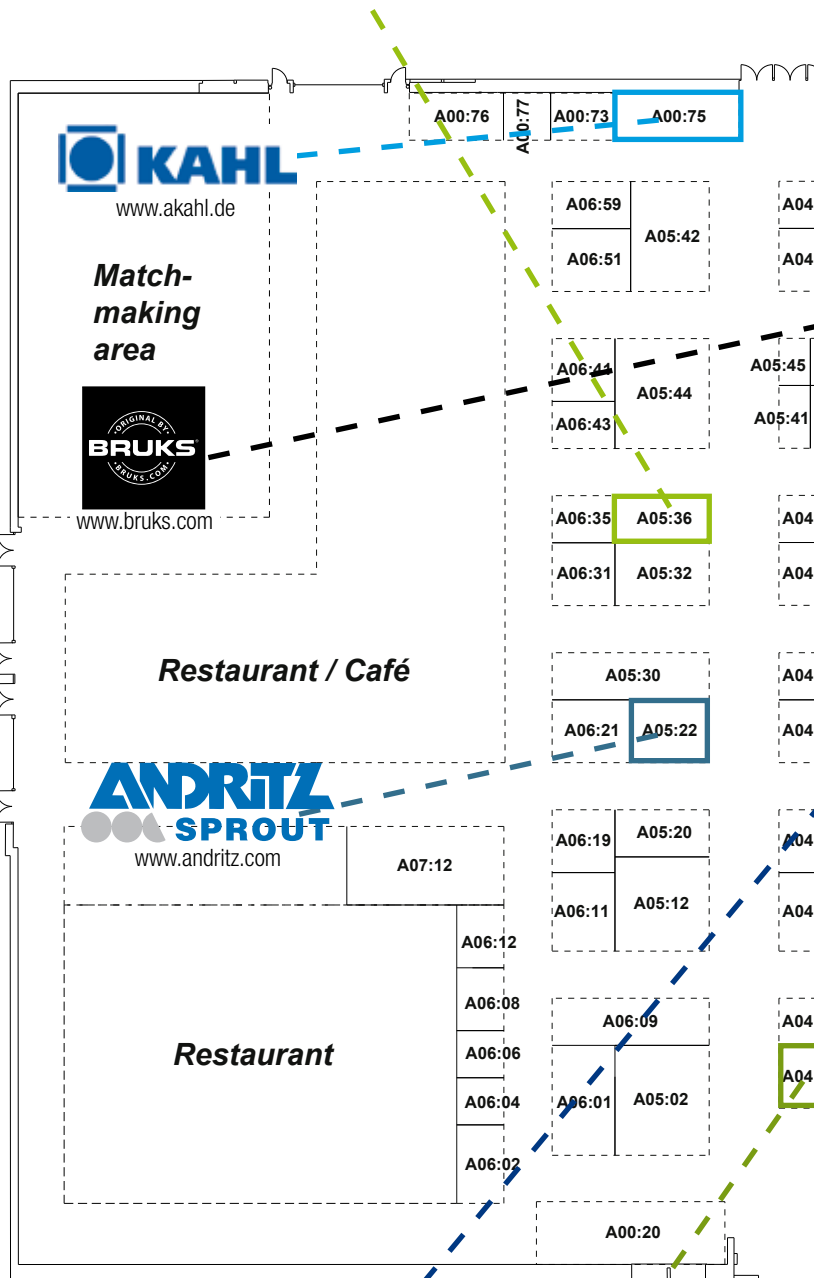
Welcome to us in Jönköping, Sweden, 25-27 May 2010!

Jakob Hirsmark, Exhibition Manager World Bioenergy



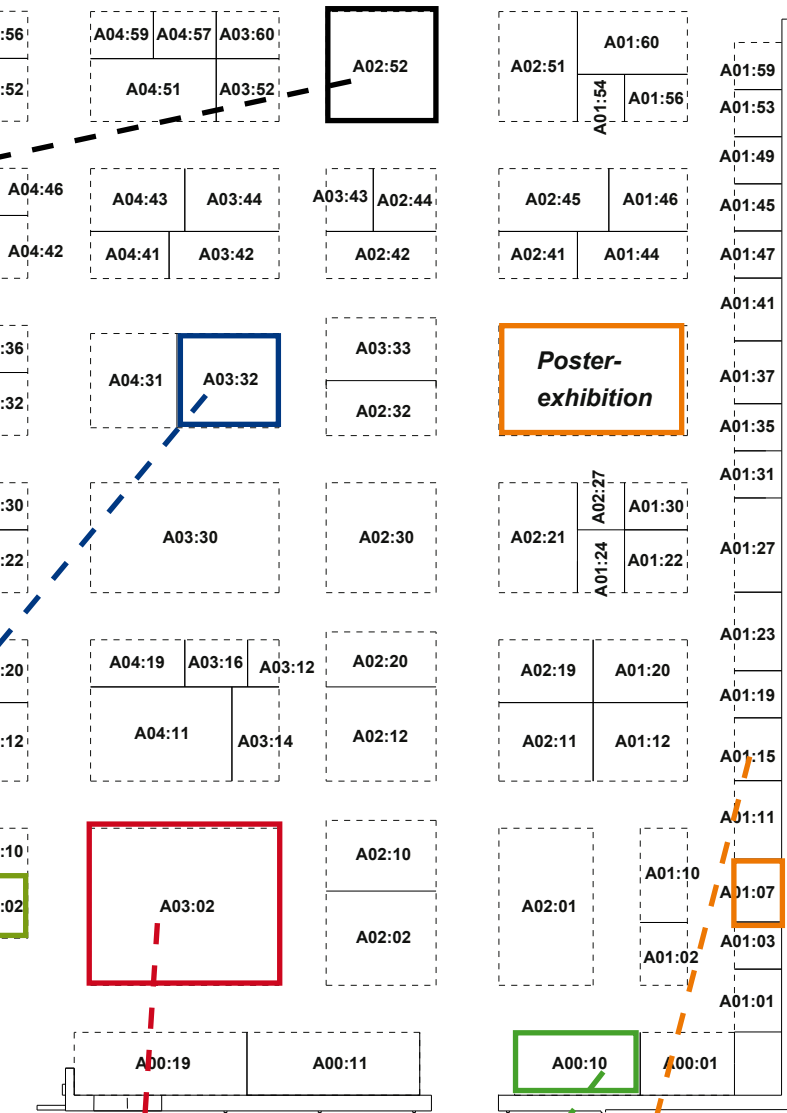
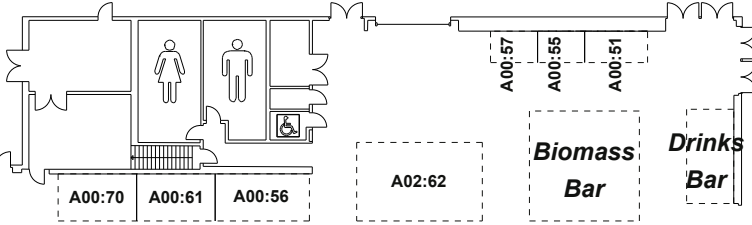
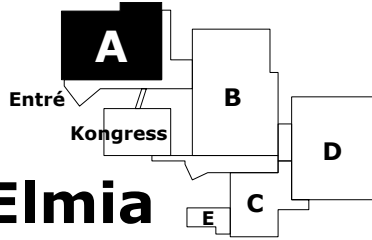
- A02:02 ABA - Invest in Austria, AUSTRIA
- A01:59 Abetong AB, SWEDEN
- A02:01-02 Advantage Austria - Austrian Federal Economic Chamber, SWEDEN
- A02:45 Aeroglide, -
- A02:01 AE&E Austria GmbH & Co KG, AUSTRIA
- A05:22 Andritz Feed & Biofuel A/S, DENMARK
- A01:60 AS Graanul Invest, ESTONIA
- A01:07 Baltic Bulk Oy, FINLAND
- A06:02 Balticum Frinab, SWEDEN
- A04:11 Benet Oy, FINLAND
- A01:54 BioAlcohol Fuel Foundation BAFF, SWEDEN
- A04:10 Bioenergi, SWEDEN
- A04:11 Bioenergy Finland, FINLAND
- A05:36 Bioenergy International, SWEDEN
- A06:08 Bo-E. Sjöberg i Stockholm AB, SWEDEN
- A03:52 Bogma AB, SWEDEN
- A00:19 Bracke Forest AB, SWEDEN
- A02:52 Bruks AB, SWEDEN
- A02:44 AB Bruzaholms Bruk, SWEDEN
- A06:11 Busch Systems International Inc. , CANADA
- A02:45 Bühler AG, Schweiz Filial, SWEDEN
- A03:44 Calderys Nordic AB, SWEDEN
- A01:47 Canadian Biomass Magazine, CANADA
- A02:42 Cellwood Machinery AB, SWEDEN
- A04:43 Cowi AB, SWEDEN
- A02:27 Dall Energy, DENMARK
- A04:46 Di Piu Srl, ITALY
- A05:45 Döscher & Döscher GmbH, GERMANY
- A01:02 Ebeaver AB, SWEDEN
- A04:56 EDP Consult AB, SWEDEN
- A01:24 Ecoil AB, SWEDEN
- A01:23 Effecta Energy Solutions AB, SWEDEN
- A05:42 Eldfast i Sverige AB, SWEDEN
- A02:41 Embassy of Poland, Trade investment promotion sec., SWEDEN
- A01:49 Energimagasinet, SWEDEN
- A01:22 Energimyndigheten, SWEDEN
- A02:12 Osby Parca Div, Enertech AB, SWEDEN
- A01:41 Exova AB, SWEDEN
- A05:30 Firefly AB, SWEDEN
- A04:20 Fisker Skanderborg A/S, DENMARK
- A01:30 Fumo, DENMARK
- A02:42 Grubbens Cedulf, SWEDEN
- A03:32 Göteborg Energi AB, SWEDEN
- A04:57 Haarslev Industries A/S, DENMARK
- A01:11 Hasle Refractories A/S, DENMARK
- A06:12 Holger Andreasen AB, SWEDEN
- A04:12 Hotab Eldningsteknik AB, SWEDEN
- A02:01 Humimeter Schaller GmbH, AUSTRIA
- A01:01 Hydratech AB, SWEDEN
- A04:32 IFE System AB, SWEDEN
- A06:41 ILAB Container AB, SWEDEN
- A01:31 Infrafone AB, SWEDEN
- A02:02 Innofreight Consulting & Logistics GmbH, AUSTRIA
- A02:02 Innofreight Speditions GmbH, AUSTRIA
- A00:55 Investment and Development Agency of Latvia, LATVIA
- A02:02 IPUS GmbH, AUSTRIA
- A01:22 Jordbruksverket, SWEDEN
- A06:04 Jousan Kone Oy, FINLAND
- A00:75 Kahl GmbH & Co, KG, SWEDEN
- A04:22 Karlshamns Hamn AB, SWEDEN
- A02:30 KMW Energi AB, SWEDEN
- A02:20 Komatsu Forest AB, SWEDEN

INDOOR EXHIBITION



Hall A

Elmia



SALMATEC
www.salmatec.com



www.cpm-europe.nl



www.stela.de

- A02:62 Konecranes AB, SWEDEN
- A02:42 Krima, -
- A06:19 Lachenmeier Maskinfabrik A/S, DENMARK
- A02:51 Lantmännen Agroenergi AB, SWEDEN
- A02:02 Ligno Heizsysteme GmbH, AUSTRIA
- A03:60 Log Max AB, SWEDEN
- A02:19 Macon AB, SWEDEN
- A04:30 Mafa AB, SWEDEN
- A03:02 Ingenjörsfirman J Mared AB, SWEDEN
- A01:27 Mentor Communication AB, SWEDEN
- A00:20 Metso Automation Inc., FINLAND
- A04:11 MHG Systems Oy LTD, FINLAND
- A04:19 Fredrik Mogensen AB, SWEDEN
- A06:43 Moisio Forest Oy, FINLAND
- A02:02 N-R-E natural recycling energy GmbH, AUSTRIA
- A04:42 NAB Solutions AB, SWEDEN
- A02:10 Nakkila Group Oy, FINLAND
- A00:11 Neova AB, SWEDEN
- A03:16 Nordisk Energi/Conventus Communication AB, SWEDEN
- A00:73 Nordiska Projekt, SWEDEN
- A03:33 Noxor AB, SWEDEN
- A03:30 Opcon Bioenergy AB, SWEDEN
- A04:51 Petrokraft AB, SWEDEN
- A01:44 Plåt & Spiralteknik AB, SWEDEN
- A01:37 Ponast spol. s.r.o., CZECH REPUBLIC
- A06:09 Recycling & Miljöteknik, SWEDEN
- A07:12 Regional Development Council Jönköping County, SWEDEN
- A01:35 Restec Exhibition Company, RUSSIA
- A04:52 Rosenlew RKW Finland Ltd, FINLAND
- A04:59 RUF GmbH & Co. KG Briquetting Systems, GERMANY
- A03:12 S-E-G Svenska AB, SWEDEN
- A06:51 Safetech IPS AB, SWEDEN
- A00:10 Salmatec GmbH, GERMANY
- A00:56 SDC ek för, SWEDEN
- A04:11 Senfit Oy, FINLAND
- A06:31 SIS, Swedish Standards Institute, SWEDEN
- A06:31 Skellefteå Kraft AB, SWEDEN
- A01:22 Skogsstyrelsen, SWEDEN
- A00:70 Sonnys Maskiner AB, SWEDEN
- A01:15 Stela Laxhuber GmbH Trocknungstechnik, GERMANY
- A06:21 Stoffkontroll AB, SWEDEN
- A00:51 Sustainable Business HUB, SWEDEN
- A04:02 Svebio, SWEDEN
- A04:36 Swedish Exergy AB, SWEDEN
- A01:53 Swiss Combi, SWITZERLAND
- A00:61 SYSteam Forest & Timber, SWEDEN
- A01:19 Termoventiler AB, SWEDEN
- A00:57 TEWS Elektronik GmbH & Co. KG, GERMANY
- A03:43 Thermorossi S.p.A., ITALY
- A01:05 Tidningen Skogen, SWEDEN
- A05:41 Tomal AB, SWEDEN
- A02:32 AB Torkapparater, SWEDEN
- A05:12 TPS Termiska Processer AB, SWEDEN
- A01:45 Turboden SRL, ITALY
- A00:10 UNY-Konsult, SWEDEN
- A05:32 Van Aarsen International B.V., NETHERLANDS
- A05:02 Viessmann Värmeteknik AB, SWEDEN
- A04:11 VTT, FINLAND
- A05:20 Walki Group, FINLAND
- A04:11 WENET - Wood Energy Net, FINLAND
- A02:01 Windhager Zentralheizung GmbH, AUSTRIA
- A00:77 World Bioenergy Association, SWEDEN

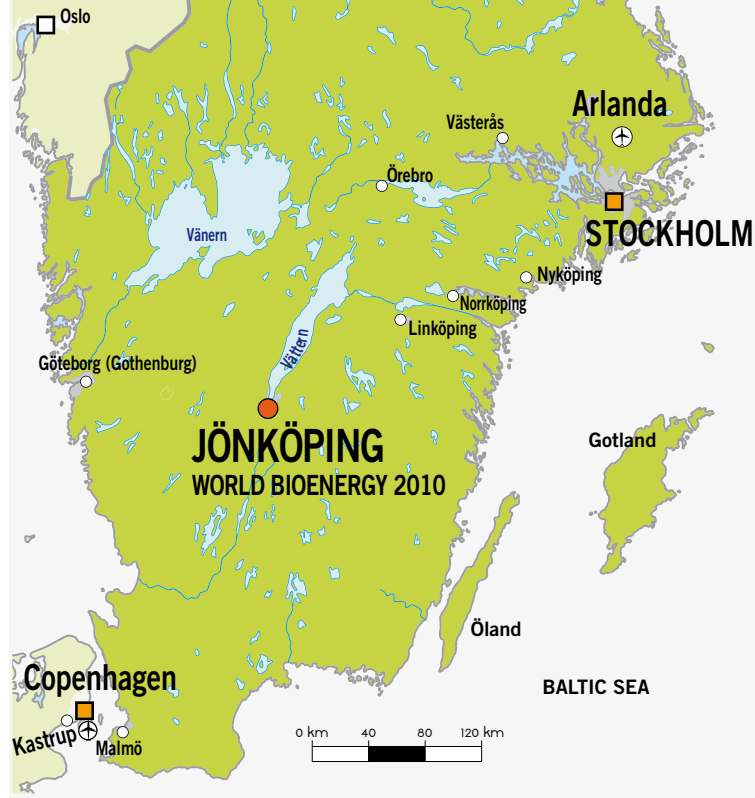
PRE - AND POST CONFERENCE TRANSFER TOURS

A distinctive feature of World Bioenergy is the popular pre- and post conference transfer tours. Arranged on the 24 and 28 May they offer a very convenient, cost and time effective travel option from airports in Stockholm and Copenhagen to Jönköping and back.

In addition, the pre- and post conference transfer tours provide you with an exclusive opportunity to visit a selection of modern bioenergy facilities along the road to and from the conference in Jönköping. These tours represent the diversity and range of bioenergy solutions used in Sweden today.

Buses will leave Arlanda and Kastrup mid-morning on 24 May. After the conference, on 28 May, post conference transfer tours will take different routes back to Stockholm Arlanda Airport or Copenhagen Kastrup Airport and arrive in time for late afternoon departures.

Please note that tours are subject to changes. For more information and registration, see www.worldbioenergy.com. **Please note that registration is necessary.**



PRE CONFERENCE TRANSFER TOURS, 24 MAY

A. Stockholm Arlanda International Airport – Jönköping

Prel. departure times 09.00

A1. Mixed

Combined heat and power plant (Enköping), short rotation coppice production (Enköping), pellets production (BooForssjö), ethanol plant (Agroetanol), and middle size heat plant (Skänninge).

A2. Mixed

Large combined heat and power plant (Södertälje), fuel railroad terminal (Södertälje), harvest and handling of forest residues (along the road), biogas plant (Swedish Biogas, Linköping) and middle size heat plant (Ödeshög).

A3. Agricultural/small scale

Short rotation coppice (willows) production fertilized with municipal sludge (Tillinge, Enköping), small-scale biodiesel production (Brunnsholm), small-scale briquette production (Lättra), local heat production (Haddestad), and green house heated by bioenergy (Karlebytorp).

A4. Solid biofuels and forest industry

Large-scale heat plant converted from oil to pellets (Fittja), handling of solid fuels at a large-scale combined heat and power plant (E.ON, Händelö), biomass use at paper and pulp plant for power and district heating (Skärblacka), heat and power plant using municipal waste (Usitall, Linköping).

A5. Biofuels for transport

Stockholm city using clean vehicles (The City of Stockholm), ethanol plant (Agroetanol, Norrköping), biogas for transport, production and use (Swedish Biogas, Linköping), small-scale biodiesel production (Tofors alt. Ageratec, Norrköping).

B. Copenhagen Kastrup International Airport – Jönköping

Prel. departure times 09.00

B1. Agricultural – small scale pellets production

Short rotation coppice (willows) production and plant breeding, small-scale biodiesel production, small heat plant using straw, biogas production on large farm, small-scale pellets production.

B2. Solid fuels – heat and power

Boiler factory for small- and middle-scale boilers (Osby), heat plants using pellets (Ljungby), heat and power plant using waste and wood fuels (Ljungby), gasification projects for second generation biofuels (Värnamo).

ICE BREAKER RECEPTION FROM 17.00

On arrival to Jönköping: Ice breaker reception with registration and a light meal. Included in the conference fees.



Biomass CHP plant delivering 50 % electricity and 100 % heat to inhabitants in Enköping.

POST CONFERENCE TRANSFER TOURS, 28 MAY

Prel. departure times 08.00

D. Jönköping – Stockholm Arlanda International Airport

D1. Mixed

Large-scale production of peat for horticultural, energy and litter purposes (Dags Mosse, Alvastra), new biogas plant using farmed crops (Örebro), biogas plant using municipal residues, food waste and ley crops (Västerås).

D2. Waste to energy

Large combined heat and power plant using municipal waste (Linköping), heat plant using recycled wood (Nyköping), bakery and small district heating grid using waste from food industry (Saltå Kvarn, Järna).

D3. Mixed

Middle scale heat plant (Skänninge), ethanol plant (Norrköping), combined heat and power plant (Katrineholm).



Biomass fuelled combined heat and power (CHP) plant, Fittjaverket.

E. Jönköping – Copenhagen Kastrup International Airport

E1. Solid fuels/pellets

Large pellets factory at saw mill (Derome, Kinnared), combined heat and power using wood fuels (Halmstad) and a large pellets user at a combined heat and power plant (Helsingborg).

DAILY STUDY VISITS, 25-27 MAY

Departure time 15.00 and return to Elmia appr. 18.00

The daily study visits are an integral part of the conference programme and are included in the conference fee. These bus trips take the participants out to real life operations at bioenergy sites, all of which are in the close vicinity of Jönköping, giving you hands on experience. You have the option to choose between several separate excursion trips.

The name of the tour indicates the main theme of the tour, but the details of the tour may vary from day to day. The number of participants at each tour is limited to 50 persons – there will be one bus on each tour.

Please note that tours are subject to changes. For more information, see www.worldbioenergy.com. No pre-registration required.

1. Forest energy

This excursion will show production of solid biofuels in the forest. One or several stops will be made at sites showing: whole tree harvesting in young stands, handling of logging residues, such as bundling, or on site chipping to produce a more homogenous fuel to facilitate transport to the heat plant.

2. Energy from agriculture

Visit to a farm where rapeseed oil is used to substitute diesel oil. The farm has its own rape cultivation and its own oil press. ⇨

“Here you can see new technology, companies that are developing new solutions, organisations that want to change the world and you can discuss how to do it. This is really a meeting place for changing the history - and that’s how big it is.

Maud Olofsson, Minister for Enterprise and Energy, Sweden
(World Bioenergy 2008)



Harvesting and chipping of logging residues.

3. Heat and power

The participants will visit the combined heat and power plants in Nässjö and Tranås (on different days). Both plants use forest fuels, woodchips, as their main fuels, and the heat is distributed in the district heating networks in these small cities. The fuel is delivered by trucks from the surrounding areas.

4. Municipal waste for energy

The combined heat and power plant using sorted municipal waste is located at Torsvik 10 km south of Jönköping. It is a relatively large plant taken into production in 2006. The excess heat is used for district heating in Jönköping.

5. Biogas

Biogas production in Jönköping is carried out in two ways – as fermentation of sludge in the municipal wastewater treatment plant, and as landfill gas.

The biogas from the wastewater is used for cars. One filling station is located at the plant, and a second station is located very close to Elmia Conference Centre. Both private cars and public utility vehicles use the fuel.

The landfill gas is converted into electricity and heat by two diesel engines at the Ryhov hospital.

6. Small and medium scale biomass use combined with solar energy

This excursion will take you to two sites. The first is a small pre-fabricated heat central warming up a school, with pellets and solar panels. The second site is a small hot water grid connecting a number of buildings, and supplied by a small heat plant with a grate boiler using wood chips as fuel. A new innovation decreases particles in the smoke with 30 percent.

”The World Bioenergy in Jönköping has grown into possibly the largest biomass event in the world.”

Tomas Kåberger, Director General of the Swedish Energy Agency (World Bioenergy 2008)



Solar energy combined with bioenergy - a 100 % renewable solution.

7. Small-scale pellets production

On this excursion the participants will see a small-scale pellet production unit at a wood processing industry. The production capacity is around 500 kg of pellets per hour. Also, logistics of pellets will be shown: bulk transportation system and bagging systems with either big or small bags for residential costumers.

8. Large-scale pellets production

Visits to three large pellets factories – a different plant will be visited each day. Sawdust from sawmills in the region is processed into pellets for small-, medium-, and large-scale costumers. The participants will be shown how the raw material is received, dried, and ground into suitable fractions and pressed into pellets. Bagging lines for small bags to residential costumers will also be shown.

9. Solar energy and combined solar/bioenergy systems

In Jönköping five municipalities have a joint information centre with an exhibition of modern residential heating systems with pellets boilers, stoves, and combinations of pellets and solar panel heating. After visiting the information centre the tour will also show a practical example with a combined solar/bioenergy system at a hospital.

10. Biomass and timber train terminal

This study tour takes the participants to a relatively new terminal south of Sävsjö where timber and biomass for energy is handled and loaded onto trains taking the fuels to heat and electricity plants in other parts of Sweden.

Register on: WWW.WORLDBIOENERGY.COM



Taking you from know-how to show-how during the daily study visits.

SIX DIFFERENT CONFERENCES AT WORLD BIOENERGY 2010

Within World Bioenergy 2010 you will be able to participate in several sessions focusing on different themes. The overall focus will be on applied and currently available technology, as well as efficient, sustainable, and economic solutions. In short: bioenergy solutions that work! Depending on your own interest and profile, you can choose among a number of themes, each of them complemented with poster presentations, exhibitors at the fair and daily study visits.

A Combined heat and power (CHP), combustion, heating and co-firing

This conference is focused on large-scale use of solid biofuels for heat and electricity production and is divided into four sessions. The potentials for solid biofuels are very large, both in forestry and in agriculture. A number of new reports on raw material availability are presented in the first session.

The second session is on fuel preparation, fuel production, and logistics. Efficient fuel handling and logistics systems are essential to mobilise these resources.

The third session is focused on large scale combustion and co-firing. Several very large projects are under way in Europe and North America.

The fourth session takes on the issue of district heating and efficient use of biomass by cogeneration of electricity and heat.

B Forest residues – slash, stumps, small tree harvest

We repeat our popular slash conference from Elmia Wood 2009. Learn how to recover biomass from felling and thinning operations. Learn about technological solutions and the economy of different solutions. Environmental effects on nutrients, soil, and growth, and how to meet these effects with ash recycling will also be covered. The presentations are mainly based on the long Scandinavian experience of using forest residues.

C Policy – how to make it all happen

The potentials for bioenergy are very large worldwide and in most countries. But how can these resources be mobilised? What are the barriers, and what incentives work best – general incentives or targeted? What are the experiences in different markets? How will the new targets in the European Union affect bioenergy markets? What kind of standards, certifications and criteria do we need?

D Biofuels for transport – biogas, bioethanol and biodiesel

Within this conference there will be four sessions with different focus, designed to give you a comprehensive overview of Biofuels today. The four themes are:

Biofuels are evolving – new innovations: The session presents new pilot scale innovation trials and process optimizing developments. The aim of the session is to showcase a wide scope of the future of biofuels.

Leading global examples: The session presents both large-scale profitable production sites as well as exciting new demonstration plants.

How to build a market for biofuels: What are the necessary requirements for developing a new market? The session looks at the drivers for building a biofuel market, presenting both theoretical models as well as knowledge from successful market builders.

Sustainability of Biofuels: Are biofuels sustainable and how is sustainability verified? The scope of the session include both presentations of existing sustainability auditing systems as well as evaluations of environmental and climate impacts from biofuels. The session ends with a panel debate on sustainability of biofuels.

E Pellets – the new large energy commodity

New interesting pellet markets are emerging world wide. With enhanced production methods and state of the art production facilities the available raw material base can be used more efficiently. This session focuses on emerging pellet markets and new innovative production technologies.

Today pellets is a commodity on the global market. In regions with a high share of electric heating pellets can increase energy security and decrease energy costs and at the same time reduce the environmental impact. This session focuses on the residential sector, the need for common policies and a high quality end product.

F Energy crops, agricultural residues and by-products


Sugar cane, jatropha, willow, poplar, rape seed, algae or reed canary grass and many other energy crops, as well as straw, manure, corn husks and bagasse, and other biomass resources, show that agriculture offers great potentials for bioenergy. The energy crop sessions will cover a number of alternatives, both in temperate and in tropical areas. We cover both research and demonstrated crop systems.

POSTER EXHIBITION

In addition to the oral presentations posters will be displayed at the poster exhibition area at the Elmia fairground.

CONFERENCE TUESDAY 25 MAY

09.00 OPENING PLENARY SESSION




















Conference chair person: Tomas Kåberger, Director General of the Swedish Energy Agency 
For more information and updated programme, see www.worldbioenergy.com

Main sponsor:



10.45 Coffee

11.15 - 13.00 PARALLELL CONFERENCES

| A1 Rawmaterial availability and market development | B1 Forest residues – slash, stumps, small tree harvest | C1 Policy – how to make it all happen | D1 Biofuels are evolving – new innovations |
|---|--|---|---|
| <p>Current status and challenges in the global availability of biomass </p> <p>Hubert Röder, Pöyry</p> | <p>Introduction - What is the overall potential, and what technologies can we use? </p> <p>Rolf Björheden, Skogforsk</p> | <p>EU climate and renewable energy policy opens up new markets across Europe </p> <p>Jean-Marc Jossart, Aebiom</p> | <p>Green-LPF an ideal 2nd generation vehicle fuel </p> <p>Christian Hulteberg, Biofuel-Solution</p> |
| <p>Forest biomass availability in EU </p> <p>Jari Hynynen, Finish forest research institute (invited)</p> | <p>Can slash and stumps be harvested without negative effects on the environment? </p> <p>Hillevi Eriksson, Swedish Forest Agency</p> | <p>The Renewable Energy Directive: A first step towards a sustainable bioenergy policy, or rather, another piece of red tape? </p> <p>Stefan Busse, University of Goettingen</p> | <p>Advances in optimization of bioethanol production </p> <p>Masahiro Samejima, The University of Tokyo</p> |
| <p>Clean power from discarded rubber trees - Benefits for Europe and Africa </p> <p>Göran Lundgren, Vattenfall</p> | <p>Bioenergy from mountain forests: Analysis of the woody biomass supply chain </p> <p>Clara Valente, Hedmark University College</p> | <p>Biomass sustainability criteria: Case study in sustainability auditing for power generation </p> <p>Adrian Mason, Inspectorate International Ltd</p> | <p>Biogas upgrading by temperature swing adsorption </p> <p>Tamara Mayer, Vienna University of Technology, Institute of Chemical Engineering</p> |
| <p>Competition between power stations for biomass in Poland </p> <p>Rafal Pudelko, National Research Institute</p> | <p>Cost-efficient small-sized energy wood harvesting method for young stands </p> <p>Kalle Kärhä, Metsäteho Oy</p> | <p>Barriers of implementing renewable energy and energy efficiency in northern periphery </p> <p>Jarmo Renvall, North Karelia University of Applied Sciences</p> | <p>Infrastructure system of textile waste recycling in Japan </p> <p>Chie Yoshimura, JEPLAN.Co.,Ltd.</p> |
| <p>From shrinking to expanding biomass in forests of the world </p> <p>Pekka Kauppi, University of Helsinki</p> | | <p>The Global Bioenergy Development Fund – A path forward for social justice in the mitigation of anthropogenic emission of greenhouse gases </p> <p>Alfred Wong, Arbokem Inc.</p> | <p>A biorefinery for the future – based on pulp industry </p> <p>Ola Hildingsson, Domsjö (invited)</p> |

13.00 - 15.00 Lunch and Exhibition

15.00 - 18.00 STUDY VISITS (see p. 9) AND SIDE EVENTS (see p. 15)

19.00 - late Official conference dinner with Magic Night show by Joe Labero and dance

World class magician at the official conference dinner 25 May!

A global event, like World Bioenergy, must of course offer conference and exhibition of world class. But we are also happy to be able to offer entertainment of the same high standard for our dinner guests.

Don't miss this opportunity to let you and your important business colleagues or partners be swept away by world famous magician Joe Labero!

Register for the dinner on www.worldbioenergy.com. For group bookings, please contact annika.lindskog@elmia.se

The World Bioenergy Award – for someone who has made a difference



The World Bioenergy Award is an award for an individual who has made a difference; a business leader, politician or researcher who in a crucial way has furthered the development of the bioenergy sector. Nominees from six continents compete for this prestigious award. The winner will be announced on 25 May in the opening plenary session.

In collaboration between World Bioenergy 2010 and the World Bioenergy Association.

CONFERENCE WEDNESDAY 26 MAY

09.00 - 10.45 PARALLELL CONFERENCES

| A2 Fuel preparation, production and logistics | E1 Pellets – the new large energy commodity | F1 Energy crops, agricultural residues and by-products | D2 Leading global examples of biofuels |
|---|--|--|---|
| The cost and management of moisture in the biomass to energy supply chain Ross Harding, Energy Launch Partners, USA | U.S. wood pellet production and global market outlook Thomas Meth, Intrinergy Inc. | Switchgrass for bioenergy Ross Wakelin, Northern Research Institute (invited) | Biofuels technology development, Petrobras a leading example Ricardo Castello Branco, Petrobras (invited) |
| Innovative technologies for long-distance biomass transports by rail Gerald Petschner, Innofreight | Temperature controlled pelletizing - a new dimension of process control Sylvia Larsson, Swedish University of Agricultural Sciences | Frameworks for organisation of straw-based energy systems in Ukraine Yuliya Voytenko, Central European University | Commercial scale BTL production on the verge of becoming reality - The CHOREN Beta-Plant and future developments Jochen Vogels, Choren |
| Biomass pre-treatment by torrefaction - how to scale up the process Jaap Kiel, Energy Research Centre of the Netherlands | Emerging pellets markets - Country profiles from around the globe Jan Wintzell, Pöyry Management Consulting - Industry | Modelling impact of climate change on willow potential productivity in Poland Jerzy Korzyra, Institute of Soil Sciences and Plant Cultivation | Biodiesel production as a strategic way of conserving environment using cleaner energies in Rwanda Jean Nduwayezu, Institute of Scientific and Technological Research |
| Application development of bio-coke technology for coppoia furnace Tamio Ida, Kinki University | Development of pellet production in Russia Olga Rakitova, The National Bioenergy Union | Round bale harvest of willow plantations in Quebec Philippe Savoie, Agriculture and Agri-Food | GoBiGas – Efficient transfer of biomass to biofuels Åsa Burman, Göteborg Energi |
| Pyrolysis oil - The sustainable alternative Dagmar Swebe, btg-bit.com | Best engineering, operating and maintenance practices for safety and health in the pellet industry Staffan Melin, Wood Pellet Association of Canada | Intercropping of reed canary grass with legumes can reduce fertilization costs Cecilia Palmberg, Swedish University of Agricultural Sciences Umeå (invited) | Ethanol from wheat straw - A reality in Denmark from November 2009 Michael Persson, Inbicon, (invited) |

10.45 Coffee

11.15 - 13.00 PARALLELL CONFERENCES

| A3 Large scale combustion and cofiring | B2 Forest residues – slash, stumps, small tree harvest | C2 Policy – how to make it all happen | D3 How to build a market for biofuels |
|---|---|--|---|
| Large percentage cofiring of coal with biomass and 100 % fuel switch from coal to biomass Włodzimierz Blasiak, Royal Institute of Technology, Stockholm | Procurement costs of slash and stumps in Sweden Dimitris Athanassiadis, Swedish University of Agricultural Sciences | Global standards on global biofuels Lars Sjöberg, Swedish Standards Institute | Darkness at noon? Scenarios for bioenergy success Petri Vasara, Pöyry Management Consulting Oy |
| Large scale cofiring by GDF-Suez in Belgium, Poland and the Netherlands Yves Ryckmans, Laborelec, (invited) | 10 years with slash bundles - More efficiency and flexibility to forest energy logistics Marica Kilponen, John Deere Forestry | Expect more from France - Current and future bioenergy development Jean-Hugues Pierson, Invest in France Agency | Bioethanol for sustainable transport, the BEST method for market development Jonas Ericsson, City of Stockholm |
| Results from a 120 MW unit in northern Sweden for high steam technology (prel.) Marcus Bolhar-Nordenkamp, AE&E Group GmbH | Applying Nordic methods of forest biomass recovery in British Columbia Ola Lindroos, Swedish University of Agricultural Sciences (invited) | The future of the Chilean native forest Rodrigo Mujica, Chilean Forest Institute, (invited) | How to build a biofuel market in China Zhang Nan, SF-Bio-Industrial Bio-tech Co., Ltd. |
| District heating in the US - It can be done! Michael Burns, Ever-Green Energy | Effects of harvesting techniques and storage methods on fuel quality of stumps Erik Anerud, Swedish University of Agricultural Sciences | Policy innovation system for clean energy security Benard Muok, African Center for Technology Studies (invited) | Southeast Asia – The Saudi Arabia of biofuels? Per Dahlen, Portelet Asia Pte. Ltd., Singapore |
| Ontario's huge biomass resource - Our steps forward to large-scale bioenergy Stephen Roberts, Ontario Ministry of Northern Development Mines and Forests | | The economic, and socio-political factors hindering the adoption of bioenergy in Pakistan: A case study analysis Uzair Umair, UCH | Understanding the market and prices Marcos Sawaya Jank, UNICA (invited) |


13.00 - 15.00 Lunch and Exhibition

15.00 - 18.00 STUDY VISITS (see p. 9) AND SIDE EVENTS (see p. 15)

19.00 - late Optional dinner with entertainment

CONFERENCE THURSDAY 27 MAY

09.00 Parallell conferences

| A4 Improving efficiency with district heating solutions | E2 Pellets – the new large energy commodity | F2 Energy crops, agricultural residues and by-products | D4 Sustainability of biofuels |
|---|--|--|--|
| <p>GHG-emissions and cost savings with district heating in Europe</p> <p>Peter Rechberger, Aebiom</p>  | <p>Australian plantation forestry and wood-biofuel pellets: Examining the role of investment schemes</p> <p>Philip Peck, Ass. Prof. at Lund University, Sweden</p>  | <p>Showing how to create wealth from Jatropha Curcas</p> <p>Ohene Kwadwo Akoto, Jatropha Africa</p>  | <p>Reviewing the validity of certification concerning sustainability</p> <p>Speaker from WWF to be confirmed.</p> |
| <p>Business model ontology for heat entrepreneurship</p> <p>Helena Puhakka-Tarvainen, North Karelia University of Applied Science</p>  | <p>The EN plus certificate - Striving for uniform pellet qualities in Europe</p> <p>Christian Rakos, ProPellets</p>  | <p>Effects of spacing in the proprieties of the wood and charcoal of eucalyptus clones from energetic forests</p> <p>Angélica Carneiro, Federal University of Viçosa (UFV)</p>  | <p>Bioenergy and land use change - Impacts and mitigation options</p> <p>Göran Berndes, Chalmers Technical University</p>  |
| <p>Top Cycle - CHP technology with high electricity output</p> <p>Speaker to be confirmed.</p>  | <p>The residential market versus the export of industrial wood pellets in the mid and long term</p> <p>Leroy Reitsma, Pinnacle Pellets Inc.</p>  | <p>Ethanol from tropical sugar beet; an exciting new feedstock for Latin America, Asia and Africa</p> <p>Jan Örhvall, ANDITEC LTDA and Chematur Engineering</p>  | <p>Bioenergy: Nearing a sustainable resolution</p> <p>Jeremy Wood, Imperial College of London</p>  |
| <p>Introducing district heating and cooling in Spain equipment and costs</p> <p>Emilio López Carmona, Gestamp-Biotermica</p>  | <p>Influencing factors on the wood pellet price development on selective European markets</p> <p>Christiane Hennig, German Biomass Research Centre</p>  | <p>Developing biofuels in East Africa; Co-developing policy and business opportunities on all scales, based on real agro-climatic results</p> <p>Alex Nabiswa, Pipal Ltd</p>  | <p>How to verify the sustainability of biofuels?</p> <p>Alwin Kopse, Head of the Secretariat of the Roundtable on Sustainable Biofuels (invited)</p>  |
| <p>Debate on how to overcome hindrance to benefit from the potential of CHP in Europe.</p> | <p>Flour bond increases production yield of wood pellets</p> <p>Jeroen van Soest, Meneba</p>  | <p>The algae advantage</p> <p>Luc Haspeslagh, Total (invited)</p>  | <p>Debate on sustainability of biofuels.</p> <p>Invited moderator: Frederic Hauge, Bellona</p>  |






10.45 Coffee

11.15 - 13.00 FINAL PLENARY SESSION: SYMPHONY OF THE RENEWABLES: A REVOLUTION

World Bioenergy 2010 will close with a panel of representatives from The International Renewable Energy Alliance (REN Alliance) discussing the future of renewable energy in a global perspective.

The panel will summarise key aspects of the renewable revolution relevant to the technologies they represent and discuss collectively how the various technologies are working together and can increase collaboration to provide safe, reliable, secure and clean energy services throughout the world, highlighting examples and case studies.

Panel:

-  Jan-Olov Dahlenbäck, International Solar Energy Society
-  Greg Tracz, International Hydropower Association
-  Árni Ragnarsson, International Geothermal Association
-  Kent Nyström, World Bioenergy Association
-  Stefan Gsänger, World Wind Energy Association

13.00 - 15.00 Lunch and Exhibition

15.00 - 18.00 STUDY VISITS (see p. 9) AND SIDE EVENTS (see p. 15)

The programme is subject to change. Latest news and an updated programme can be found on WWW.WORLDBIOENERGY.SE

OTHER ACTIVITIES AND USEFUL INFORMATION

Side events

Project meetings, work-shops etc. can be held at the Elmia fair-ground in connection to the conference and exhibition.

A number of Side events are already confirmed. Programmes can be found on www.worldbioenergy.com

For registration of Side events or further information please contact Svebio, worldbioenergy@svebio.se

Poster exhibition

Posters will be displayed at the poster exhibition area at the Elmia fairground. Delegates can view them during coffee breaks and exhibition hours and also meet the authors of the posters.

All exhibited posters have successfully gone through a scientific evaluation before being accepted.

The poster exhibition is open to all visitors at World Bioenergy.

Matchmaking

The successful matchmaking concept at World Bioenergy and Elmia Recycling to Energy continues!

Create another opportunity to meet potential clients, partners for business, product and market development or research projects by booking meetings with prospects in advance.

The matchmaking will take place during 25-26 May 2010.

There is no extra charge for exhibitors or conference delegates for this matchmaking service but it is urgent to get your profile uploaded in order to take part.

More information on www.worldbioenergy.com



Elmia exhibition area and conference center is located near lake Vättern, Sweden's second largest lake.

Programme Updates

Please note that the programme is subject to change. Latest news about World Bioenergy 2010 and an updated programme can be found on www.worldbioenergy.com

Language

English is the official language of the conference.

Climate

Late May daytime temperatures range between 15-20° C (60-70° F), usually sunny and dry.

Marketing opportunities

Why not make the most out of your participation and market your company at World Bioenergy 2010?

For further information about sponsorship, please contact the organisers.

Main media partner:



www.bioenergyinternational.com

CONFERENCE FEES

| | |
|---|--|
| 3 days (25 - 27 May) | 7 400 SEK |
| 2 days | 5 900 SEK |
| 1 day | 4 400 SEK |
| Ice breaker reception, 24 May | Included |
| Official conference dinner, 25 May | 800 SEK |
| Optional dinner, 26 May | 700 SEK |
| Pre conference tours, 24 May | 1 300 SEK |
| Post conference tours, 28 May | 1 300 SEK |
| Daily study visits, 25 - 27 May | Included, only for conference delegates |
| All inclusive | 9 900 SEK |

Please note that for all participants an additional 25% VAT will be charged.

Entrance fees to the exhibition

Entrance fee for the exhibition: 350 SEK incl. VAT.

The entrance fee includes lunch and coffee.

If you are a conference delegate your entrance fee is included in your conference fees.

Discounts

For delegate groups (10 persons or more), a 10% group discount on the conference fee is available. A 60% student discount on the conference fee is available for third-level students currently enrolled in a relevant field of study. A valid student card or letter from a university department or similar will be required as proof. A 30% discount on the conference fee is available for World Bioenergy exhibitors. Discounts cannot be combined.

1 Euro = approx. 10 SEK

1 USD = approx. 7.40 SEK

TAKING YOU FROM KNOW-HOW TO SHOW-HOW
WWW.WORLDBIOENERGY.COM

WOULD YOU LIKE MORE INFO ?

Contact us and we'll be happy to tell you more.

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REGISTRATION

For further information and registration to the conference, pre- and post transfer tours, dinners and matchmaking:

www.worldbioenergy.com

TIME AND PLACE

Conference and Exhibition:

25-27 May 2010, Elmia, Jönköping, Sweden

Pre - and post conference transfer tours:

24 May 2010 from Arlanda airport (Stockholm) and Kastrup airport (Copenhagen) to Jönköping

28 May 2010 to Arlanda airport (Stockholm) and Kastrup airport (Copenhagen) from Jönköping

HOTEL BOOKINGS

For easy and efficient service book your accommodation via Jönköpings Hotellbokning. We recommend you to book early!

Tel: +46 36 10 71 71, e-mail: hotellbokning@jonkoping.se,

www.jonkoping.se/hotellbokning

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