World Bioenergy
Clean Vehicles & Fuels

16 - 18 September 2009

Stockholm, Sweden

INVITATION & PROGRAMME

www.wbcvf2009.se

World Bioenergy Clean Vehicles & Fuels 2009

Dear Delegates,

Modern energy and transport can reduce poverty and improve the lives of people. But global sustainable development faces a major challenge in the perils of climate change. And then, energy and transport are the major problems.

Biomass may provide a much larger, but limited, part of global energy supply. In order to be competitive, and to gain market shares, bioenergy must be used in efficient systems. In order to help reducing climate change, biomass production should be long-term sustainable, and be profitable, the available bioenergy should be allocated to where benefits are greatest.

World Bioenergy – Clean Vehicles & Fuels 2009 will address these challenges.

Integrated in the energy system of Sweden's capital Stockholm, biomass is converted into electricity, heat and automotive fuels. Welcome to World Bioenergy – Clean Vehicles & Fuels 2009 where you will be able to see how modern, urban bioenergy utilisation has contributed to making Sweden the country where bioenergy provides more energy per capita than in any other country in the world.

In this setting, global expertise will gather to take on the challenges and identify global opportunities of modern bioenergy and transport systems.

Welcome to World Bioenergy – Clean Vehicles & Fuels 2009!

Tomas Kåberger, Director General, Swedish Energy Agency

Photo: Johan Wingborg

Tomas Kåberger,
Director General,
Swedish Energy Agency

Dear Colleague,

The recent months of global economic readjustment re-emphasises the urgency to invest huge amounts of capital and human resources into renewable energy sources and transport power-trains. To develop and prosper without driving climate change, our societies need energy and transport solutions that are secure, safe and sustainable.

We need functional, stable, long-term policy and steering instruments at all levels, to stimulate innovation, catalyse entrepreneurial implementation and attract capital investment. We need to fast track harmonisation of technical standards and legislative norms for fuels and technologies, their production and usage so as not to impede development, international trade or compromise public and environmental safety. We need to agree on social, economic and biological sustainability criteria for the diversity of feedstocks and sources available to us to ensure we do not solve one challenge by creating other adverse challenges.

Gustaf Landahl,
Clean Vehicles
and Fuels,
City of Stockholm

Gustav Melin,
Svebio,
Swedish Bioenergy
Association

For this to happen we need to change our mindset and move away from thinking that one size or solution fits all. At World Bioenergy – Clean Vehicles & Fuels 2009, you have the unique opportunity to put yourself into the fore of the "glocal" picture. Build on your knowledge and networks from the vast experiences and know-how of academia, politicians and industry. Learn about what is being done and what can be done, today. Benefit others by sharing your knowledge and experiences.

Welcome to Stockholm and World Bioenergy – Clean Vehicles & Fuels 2009!

Stockholm – European Green Capital 2010

Stockholm, the Swedish capital, is the proud host city of World Bioenergy – Clean Vehicles & Fuels 2009, and what a fitting host it is! Stockholm is the first city to be awarded the "European Green Capital" title starting in 2010 by the European Commission.

Beautifully situated on the Baltic coast, this "Venice of the North" is built on 14 islands, surrounded by water and has the ambitious target of becoming fossil-fuel free by 2050.

Green house gases are 50% lower than the national average

The greater Stockholm area has more than 1.9 million citizens yet continues to grow rapidly. The City Council's holistic vision combines growth with sustainable development. The amount of green house gas which each inhabitant of the City of Stockholm releases is 50% lower than the national average, and emissions per person have, since 1995, been reduced by 25%. Stockholm has a well functioning district heating system, powered by 80%, with renewable energy sources. Transport emissions are relatively low and all public transport (all suburban trains, trams and inner city buses) run on green electricity or renewable fuels such as ethanol and biogas.

40% of all the cars being sold are clean

Stockholm has since 1994 actively worked for a market introduction of clean vehicles. The aim has been to overcome market obstacles and to build infrastructure for alternative fuels. The results are astonishing: 40% of all cars sold in Stockholm are clean vehicles, and of the total fleet 7% - 66,000 cars are ethanol, biogas, hybrid-electric or ultra-low emission vehicles. All inner city buses operate on biogas or ethanol, 50% of the waste-lorries and 40% of the taxis are biofuelled or hybrids. More than 65 fuel stations (75%) offer ethanol or biogas and all petrol sold in the region contains 5% ethanol. The trend is still increasing.

Sharing of experience

The City of Stockholm has shown its commitment and eagerness to share experiences and act as inspiration for others. Strong networking and the involvement of local and international stakeholders ensures that Stockholm and other cities can further their efforts and boost environmental awareness across Europe. As a participant during the World Bioenergy – Clean Vehicles & Fuels 2009 you will be able to see for yourself how bioenergy has been sufficiently introduced on a large scale in the heat, power and transport sector of the city. It is a great opportunity to learn more and see how it all works in real life.

Welcome to share the renewable energy experiences of Stockholm!

Stockholm City hall viewed from the waterfront. **Photo: Yanan Li**

Programme outline

	Monday 14/9	Tuesday 15/9	Wednesday 16/9	Thursday 17/9	Friday 18/9
09.00			OPENING PLENARY SESSION	PARALLEL SESSIONS 9 - 13	PARALLEL SESSIONS 20 - 24
11.00		PRE CONFERENCE TOUR & SIDE EVENTS	PARALLEL SESSIONS 1 - 5	PARALLEL SESSIONS 14 - 18	FINAL PLENARY SESSION
13.00			LUNCH & EXHIBITION	LUNCH & EXHIBITION	LUNCH & EXHIBITION
15.00	PRE CONFERENCE TOUR		PARALLEL SESSIONS 6 - 8 / SIDE EVENTS / STUDY VISITS	PARALLEL SESSION 19 / SIDE EVENTS / STUDY VISITS	DEPARTURE EVENT
17.00					
19.00		ICE BREAKER	OFFICIAL BUFFET RECEPTION, CITY HALL	DINNER CRUISE	
The registration/information desks are open the following hours:		16.00 - 22.00	08.00 - 16.00	08.00 - 16.00	08.00 - 14.00

PRE CONFERENCE TOURS, see page 6
DAILY STUDY VISITS, see page 10
DEPARTURE EVENT, see page 13

CONFERENCE PROGRAMME, see page 14

SIDE EVENTS, see page 21

EXHIBITION, see page 25

MATCH MAKING, see page 25

SOCIAL PROGRAMME, see page 26

Autumn colouring highlighting the many recreational areas throughout the city. Photo: Yanan Li

Pre conference tours, 14 - 15 September

A distinctive feature of World Bioenergy – Clean Vehicles & Fuels 2009 are the pre conference tours. Arranged on the 14-15 September these tours represent a diversity and range of bioenergy solutions used in Sweden today. They present exceptional "added value" opportunities to see how everything works in real life and are an ideal complement to the daily study visits available during the conference itself. For example the buses will stop at plants for heat and power generation (CHP) using different biofuels, energy crop plantations, small town district heating, ethanol and biodiesel production, biogas production and use as well as at a sawmill with integrated pellets production.

Please note that these tours are optional and not included in the conference fee. The pre conference tour itineraries are subject to change. For details and updated programmes consult the website www.wbcvf2009.se

For further questions, please contact:

Tour 1: Robert Bergman, Solander Symposium, robert.bergman@solandersciencepark.se

Tour 2-4: Kjell Andersson, Swedish Bioenergy Association, kjell.andersson@svebio.se or Michelle Ekman, Swedish Gas Association, michelle.ekman@gasforeningen.se.

Smurfit Kappa in Piteå is Europe's biggest producer of kraftliner, a paper used for packaging. The factory produces large quantities of black liquor which can be used as raw material for biofuels. Chemrec has built a demonstration plant to produce bioDME - here seen in the forefront (pre conference tour 1).

Pre conference tours, 14 - 15 September

Tour 1. Visit Solander Science Park – from Wood to Wheel

The projects to be visited are:

1. The worlds first industrial scale production facility for renewable diesel from forest based feedstock.

2. The worlds first BioDME-project to demonstrate production of environmentally optimised synthetic biofuel from lignocellulosic biomass at industrial scale. The final output of this demonstration is dimethylether (DME) produced from black liquor through the production of clean synthesis gas. The bio-DME will be tested in a fleet consisting of 14 Volvo trucks.

3. The ETC – a research and development centre for renewable fuels with focus on combustion, gasification and bio-refining processes.

4. Integration of the pulp mill with the BioDME-project.

HOW TO GET THERE, WHEN, AND STUDY VISIT PROGRAMME:

14 September, Stockholm Arlanda Airport - Piteå

Take the Arlanda Express train from Stockholm Central Station to Arlanda Airport around 17.30. Take the SAS-flight 19.15 to Luleå Airport. A bus or taxis and a guide are waiting at the airport to take you to Piteå and your hotel.

There will be a light buffet at Piteå Stadshotell in the evening. More information will follow.

Please note that you have to book and pay for your own accommodation!
We recommend Piteå Stadshotell, www.piteastadshotell.com

Alternatively: Take the early morning SAS flight 08.20 to Luleå on 15 September.

15 September, Study visit and travel back to Stockholm Arlanda Airport

8.30	Pick up at the hotel. Tour to Solander Science Park
	Visit on Chemrecs BioDME-plant, ETC Bioenergy Lab and Smurfit Kappa biofuel power plant
11.30	Tour to the Haraholmen harbour for lunch
13.00	Visit to SunPines biodiesel factory
14.00	Back to the hotel
14.30	Departure from Piteå Stadshotell to the airport for a SAS-flight at 16.00 back to Stockholm Arlanda Airport.

Please note that you have to book and pay for your own travel to and from Piteå. Please note that return flight to Stockholm Arlanda – Luleå ranges 1 000 – 5 000 SEK depending on type of ticket and time of booking. For ticket reservation, please contact the travelagency: www.resia.se/pitea, or phone: +46 (0)911-559020.

Contact:

Robert Bergman, Solander Symposium
E-mail: robert.bergman@solandersciencepark.se
Ph +46 (0)70-5240058

▶ For an updated programme and registration, www.wbcvf2009.se

Tour 2. Enköping – Västerås, 09.00 – 18.00

Sustainable combined heat and power (CHP) production + unique biogas project, and waste handling + salix (energy crop) waste water treatment installation

Ena Energi AB is the energy utility in Enköping, owned 100% by the municipality. The district heating grid has a length of 84 km and delivers 220 GWh yearly. The combined heat and power plant is located only 1.5 km from the main square. It uses almost only biomass, both for base load (chips) and for top load (pellets).

Enköping has developed a unique bio-cyclical solution – a combination of Salix plantations, energy production from biomass, heavy metal extraction, sludge-water cleaning, and ash utilisation – in a well thought-out system. The energy crops are used to reduce the effluence of nitrogen and phosphorous to Lake Mälaren, and at the same time produce high yields of biomass.

Svensk Växtkraft AB in Västerås, is a biogas plant taking the technology one step further. It uses sorted household and catering waste, grease trap removal waste, and ley crops from 300 hectares as raw materials for the digester. The gas is upgraded to vehicle fuel, and used locally both for heavy and light-duty vehicles, as well as exported to other cities. Together with biogas from the sewage treatment plant in Västerås the production of vehicle fuel is 2.4 million Nm^3 per year. In addition, 4 300 tonnes solid and 16,000 tonnes liquid bio-fertilizer is produced. The plant is owned by the local energy and waste handling utilities, by the Farmer's union, and by 17 local farmers.

The plant is located at the waste treatment facility Gryta north of the city, run by ***VafabMiljö AB***. This company is owned by several municipalities and deals with sustainable and environmentally sound handling of waste from house-holds and businesses. 15,000 tonnes of the organic waste per year is used as substrate in the biogas plant in Västerås. The source-separation of organic waste is voluntary in Västerås and yet 90% of the house-hold participate in the separation scheme.
Lunch will be provided in Västerås.

The pre conference tours 2-4 leave from the City Bus Terminal (Cityterminalen), Klarabergsviadukten, in central Stockholm.

Tour 3. Katrineholm - Strängnäs, 09.00 – 18.00

New combined heat and power (CHP) using recycled wood + integrated pellets production at saw-mill

BooForssjö pellets factory was taken into operation in 1995. It is located in Forssjö outside Katrineholm, and the production is integrated with the sawmill. Bark and fuel wood chips are used both to dry timber and to dry saw-dust used for pellets production. The production capacity is about 50,000 tonnes per year – deliveries are made both in bulk and small sacks.
The combined heat and power plant (CHP) in Strängnäs was recently taken into operation. It is a CHP delivered by ***Vølund*** (boiler), ***KMW*** (turbine) and ***Radscan*** (flue gas condensation). The capacity is 36.5 MW of which 8.9 can be produced as electricity for the grid. Hot water is produced for the district heating grid and steam for nearby industries, e.g. pharmaceutical industry.

At this tour we may add another short stop at a smaller heat plant on the road. Lunch will be provided in Katrineholm.

Tour 4. Norrköping – Linköping, 09.00 – 18.00

Production of biofuels for transport. Ethanol from wheat using biomass for energy. Small scale biodiesel technology. Biogas and gas vehicle (NGV) production.

Lantmännen/Agroetanol in Norrköping is Sweden's largest ethanol producer. The factory was recently upgraded to a capacity of over 200,000 cubic meters per year. It uses mainly wheat. The process energy comes from the nearby biomass fuelled CHP – Händelöverket owned by ***E.ON.*** The by-products are either used as feed-stock, or used as raw material for biogas production by ***Svensk Biogas.*** The three units can be seen as a bioenergy combinate using biomass raw materials with a high total efficiency.

Ageratec in Norrköping is a leading producer of small and middle scale equipment for biodiesel production. The smallest units produce 1 000 litres per day in batches. Several raw materials can be used – in Sweden mainly rapeseed and waste frying oils from restaurants.

Svensk Biogas AB has two biogas production plants, one in Linköping and one in Norrköping. The Linköping plant is situated near by the waste water treatment plant in Nykvarn. The plant receives 45,000 tonnes animal biproducts and waste from food industry every year. The annual production of upgraded biogas corresponds to 65,000 MWh. The upgraded gas is used for cars, buses, and even a train, Amanda, that operates between Linköping and Västervik.

Svensk Biogas AB also has established biogas filling stations for vehicles in the towns of Linköping, Norrköping, Nyköping, Katrineholm, Örebro, Motala and Mjölby.

Stadspartner Ltd carries out energy-efficiency enhancement and conversion of petrol- and diesel run vehicles to operate on biogas. This activity is an important service as the growing market for biogas not only needs the product itself, but also filling-stations and a range of different vehicle models that are not always available from the vehicle manufacturers.

The tour to Norrköping covers the ethanol plant and a visit to Ageratec. The tour to Linköping will cover the biogas-plant, a filling station and the work-shop for vehicle conversion. Lunch will be served in Norrköping, and afternoon coffee in Linköping.

Harvesting grass for biogas production. The grass is stored in large plastic "sausages" to be used later for biogas production.

Agroetanol's ethanol factory in Norrköping

The heat and power plant in Enköping with the salix plantation in front.

The daily study visits are an integral part of the conference programme and thus included in the conference fee. These bus trips take the participants out to real life operations at bioenergy sites of different kinds. You have the choice of several separate study visits, all of which are located in Stockholm, or in the close vicinity of Stockholm.

The daily study visits leave and return to Stockholm International Fairs & Conference Center (Stockholmsmässan) in Älvsjö!

The daily study visits itineraries are subject to change. For details and updated programmes, please visit www.wbcvf2009.se

Tour A.

Large scale CHP with solid biofuels + new large train terminal for fuels, 15.00 – 18.00

Söderenergi AB is a large producer of district heating, delivering hot water to the district heating grids in Södertälje and the Southeastern suburbs of the metropolitan region, supplying 200,000 inhabitants, plus offices and industries.

Söderenergi is currently building the so far largest biomass fuelled combined heat and power plant (CHP) in Sweden at its site in Södertälje harbour - Igelstaverket. The capacity of the plant will be 200 MW heat and 85 MW electricity. The construction will be finished in the autumn of 2009. The boiler is built by ***Foster-Wheeler*** and the generator by ***Siemens.***

Söderenergi uses several kinds of biofuels, such as forest fuels, recycled wood, peat, pellets and waste fuel from paper and plastic. The total use of fuels is 2.5 TWh per year. The new CHP will use large amounts of forest fuels, and much of it has to be transported from distant parts of Sweden by train. A new terminal for biofuels is being built in Nykvarn, west of Södertälje. The terminal will handle 200,000 tonnes of forest fuels per year. The fuels will be reloaded onto trucks and taken to the new CHP in the city.

The tour will take us to the CHP at Igelsta and to the new train terminal for biofuels.

The biomass-fuelled combined heat and power plant in Södertälje will be Sweden's largest. It will primarily use forest fuels taken from distant parts of Sweden and reloaded at a new train terminal west of Södertälje.

Daily study visits, 16 - 17 September

Tour B. Waste to energy – heat and electricity, 15.00 – 17.30 (tbc)

In Sweden, municipal waste is a major source of energy for district heating. Most waste plants also have power production. Since 2005 it is prohibited to take combustible waste to land-fills.

Högdalen combined heat and power plant (CHP) is Sweden's largest producer of district heat using waste as fuel. The main fuel is municipal waste from the Stockholm region. Also, large quantities of recycled wood is used.

Högdalen is also a large electricity producer. The plant is owned by ***Fortum Värme samägt med Stockholms stad.*** It is a joint venture between the Finnish energy company Fortum and the city of Stockholm (Fortum holds the majority).

The tour will give us a complete tour of the plant.

Tour C. Small heat plant and heat grid + willow plantation and chip boiler, 14.30 – 18.00

(note that this tour leaves earlier than the others!)

The Royal Family live at the royal palace of Drottningholm west of Stockholm. It is a large baroque palace built in the late 17th century. To heat the palace, and the surrounding area with a number of houses, as well as a research station for the Swedish Board of Fisheries, a small heat plant was built in 2006. A small district-heating grid was also built. The boiler is placed in a separate new building, and the heat capacity is 900 kW. Before the installation the heat production was based on 67% oil and 33% electricity. Now 95% of the heat comes from wood pellets, and 5% rapeseed oil.

The boiler is built by ***Järnforsen***, the plant is owned by ***Statens Fastighetsverk (SFV)*** and the project management done by ***Installed HB.***

Svartsjö is a criminal detention facility west of Stockholm, located on an old estate with a palace and a large farm. In the early 1990:s salix (willow) was planted on some of the fields, for short rotation coppice production. At the same time a 500 kW boiler was installed for production of heat for all the buildings. Solar collectors have since been added to the heating system.

The tour will take us to Drottningholm and Svartsjö, which are both located on islands in Lake Mälaren.

The royal palace Drottningholm and the surrounding area is heated from a new small heat plant using pellets and bio-oil. The Royal Family has shown great interest in promoting bioenergy. Photo: Alexis Daflos/Kungl. Hovstaterna.

Daily study visits, 16 - 17 September

Tour D.

Small scale pellets use – Lida friluftsgård, 15.00 – 17.30

Lida is an out-door recreation facility for hiking, cross-country running and skiing, and other activities. On the premises there is also a restaurant, and five buildings to be heated. Lida is located in a forest area south of Stockholm.

A new system for heating and hot water production was recently installed at Lida. The boiler uses wood pellets and the system also includes 10 square metres solar collectors, used to heat water for the changing rooms and a small indoor pool. The installation is a good example of small to middle-scale combined pellets and solar technology.

Besides looking at the installations we will also get afternoon coffee. Coming back from the tour we will be able to see another small-scale installation near the conference hall, at the old railway station in Älvsjö.

Tour E.

Large scale pellets use for heat and electricity, 15.00 – 17.30

Hässelby heat and power plant is Sweden's largest user of wood pellets, and uses 250,000 – 300,000 tonnes yearly. The plant, owned by ***Fortum***, was one of the earliest to convert from fossil fuel to biomass, and the project was also the starting point for large investments in pellets factories in northern Sweden. Hässelby is located in the north-eastern part of the city of Stockholm, on the shore of Lake Mälaren. The pellets are delivered directly to Hässelby by boat, and are unloaded into a large storage area.

Tour F.

Clean cars, buses and fuels in Stockholm, 15.00 - 17.30

Travelling in an ethanol bus we go on a tour about biogas production, refuelling of cars and buses with ethanol and biogas and the charging of electric vehicles.

We will visit the sewage treatment plant at Henriksdal, and take a closer look at the production of biogas out of the water cleaning process. At a refuelling station for biogas and ethanol we will learn more about sold fuel volumes, security requirements and clean vehicle car rental. We will be able to watch a bus being refuelled at a bus depot and its new filling station. Finally we will visit the new charging post for electric vehicles outside the City Hall and learn more about how they work.

Note! This trip starts at Stockholm International Fairs & Conference Center (Stockholmsmässan) in Älvsjö but ends at the Central Train Station in Stockholm.

Departure event, 18 September

Tour G.

Clean Vehicles and Fuels - short study visit on the way to the airport, 14.00 - 16.30

Travelling in an ethanol bus we go on a tour with one stop on the way and another at Arlanda Airport.

At the first stop we will visit a large and modern sales office and service centre for clean cars – both new and used ones. The second part of the tour takes us to the airside of Arlanda Airport. We will learn more about clean vehicles and clean fuels, prioritisation of clean taxis, environment-requirements and measures.

Note! The trip starts at Stockholm International Fairs & Conference Center (Stockholmsmässan) in Älvsjö and ends at the clean taxi station at Arlanda Airport.

All itineraries are subject to change. For details and updated programmes, please visit www.wbcvf2009.se

From green electricty to ethanol, biogas and hydrogen, a diversity of energy sources power Swedish private and public transport.

Opening plenary session, 16 September

World Bioenergy – Clean Vehicles and Fuels 2009 is proud to present an interesting conference programme during 16 - 18 September. Speakers of many nationalities will present interesting findings, experiences and knowledge. Please visit www.wbcvf2009.se as more speakers and sessions will be added continuously!

09.00 - 10.30 Opening plenary session

RENEWABLE ENERGY AS PRIME MOVER TO RESTART THE GLOBAL ECONOMY
Chairperson: *Dr Tomas Kåberger, Director General, Swedish Energy Agency*

Welcome to Sweden - opening of the conference
His Majesty King Carl XVI Gustaf of Sweden

Renewable energy for the green capital - Welcome to Stockholm
Ulla Hamilton, Deputy Mayor of Environment and Traffic, City of Stockholm

Towards an Eco-effecient Economy - The role of renewable energy
Maud Olofsson, Minister of Enterprise and Energy, Deputy Prime Minister

New perspectives for development of renewable energy and clean vehicles in Poland
Waldemar Pawlak, Minister of Economy, Deputy Prime Minister

Potential for bioenergy in Tanzania
William Ngeleja, Minister of Energy and Minerals of Tanzania

Retrofitting Michigan to sustainable energy solutions
Jennifer Granholm, Governor of Michigan

10.30 - 11.00 Coffee, Exhibition and Networking

photo: Eva-Marie Rundquist

His Majesty King Carl XVI Gustaf of Sweden, patron of World Bioenergy

photo: Pawel Flato

Maud Olofsson

Jennifer Granholm

photo: Yanan Li

Ulla Hamilton

Conference, 16 September

11.00 - 13.00 Parallel sessions No. 1 - 5

SESSION 1:
Policy & Renewable Energy Directive (RED)
Chairperson: *Jean Marc Jossart, AEBIOM*

Consequences for the bioenergy industry of the RED directive
Dr Heinz Kopetz, AEBIOM, WBA

On the consistency of the EU-20-20-20 targets for 2020
Julia Hansson, Chalmers University of Technology

The international policy impacts of the US indirect land use concept (iLUC) and the low carbon fuel standard for biofuels and other biomass industries
William Holmberg, ACORE, WBA

Reflections on Kenya's experience in Gasohol
Judi W. Wakhungu, ACTS, WBA

Energy sources in Australia's region, policy directions, and the scope for bioenergy
Andrew Lang, SMARTimbers Cooperative, WBA

Impacts of the European energy and climate package on Northern Europe – Results from the NEP project
Dr Thomas Unger, Profu

SESSION 2:
Bio-refineries: Co-production of fuels, chemicals, power and materials
Chairperson: *Dr Jens Bo Holm-Nielsen, Aalborg University*

International industrialisation of bioethanol from cellulose
Jan Lindstedt, SEKAB

A demonstration on biorefinery of vegetable oil: Integrated production for biodiesel and 1,3-propanedio
Prof Dehua Liu, Tsinghua University, Beijing

Co-production of biogas and bio-fertilizer
Irene Bohn, Nordvästra Skånes Renhållningsverk (NSR)

Lignin separation from Kraft Black Liquor and replacement of fossil fuels
Per Tomani, INNVENTIA

Joakim Säll, Lantmännen Energi

Co-production of biogas and bio-ethanol
Mikael Runesson, Nordisk Etanolproduktion

SESSION 3:
Socio-economic drivers in implementing bioenergy projects – Solving the economic crisis with bioenergy
Chairperson: *Christiane Egger, O.Ö. Energiesparverband*

Topical scientific issues of biofuel production and use worldwide and in Russia
Prof Eduard Akim, State Technological University of Plant Polymers

Comparing bioenergy development in Japan and Sweden
Dr Tetsunari Iida, ISEP, WBA

Bioenergy, poverty and rural development – Three issues, one solution
Dr Julije Domac, North-West Croatia Energy Agency

Pathways for increased use and refining of biomass in Swedish energy intensive industry
Kersti Karltorp, Chalmers University of Technology
Maria Johansson, Linköping University

Bioenergy for US energy security and global competitivness
Ross Harding, Energy Launch Partners

SESSION 4:
Criteria for sustainable biofuels
Chairperson: *Dr Jeremy Wood, Imperial College*

Sustainability criteria in the EU renewable energy systems directive
Paul Hodson, European Commission, DG TREN

Sustainable sugar cane production in Brazil
Marcelo C. Almeida, CENBIO - Brazilian Reference Center on Biomass

The audit of verified sustainable biothanol
Vanda Nunes, SGS ICS Certification Ldta

Reporting of sustainable biofuels in the UK
Nick Goodall, Renewable Fuels Agency

How sustainable are biofuels?
Dr Pål Börjesson, University of Lund

Implementation of sustainability criteria - experience gained in practice with the ISCC System
Dr Norbert Schmitz, meó Consulting Team

SESSION 5:
Development of clean propulsion technologies – State of the art
Chairperson: *Prof Daniel Sperling, Institute of Transportation Studies, University of California, Davis*

Bio, hydrogen and/or electricity: Multi-pathway scenario towards the ultimate eco-car
Dr Takehisa Yaegashi , Cordia Co. Ltd, Shizuoka, Mishima-shi

On cars and light transport vehicles
Thomas Brachmann, Honda R&D Europe

On heavy duty vehicles
Zoran Stojanovic, Daimler Benz (invited)

On biofuels for vehicle engines

Batteries and fuel cells for traction of road vehicles
Prof Göran Lindbergh, Royal Institute of Technology, Stockholm

13.00 - 15.00 Lunch, Exhibition and Networking

15.00 - 17.00 Parallel sessions No. 6 - 8 (Daily study visits, see p. 10. Side Events, see p.22)

SESSION 6:

Russia - Sweden bioenergy session

(Open for all nations)

Chairperson: *Ass Prof Tatjana Stern, Swedish University of Agricultural Sciences*

Strategy and policy for development of bioenergy in Russia

Oleg Pluznikov, Ministry of economical development

Environmental and social standard and production of biofuel in Russia

Elena Kulikova, World Wildlife Fund

Biofuel production in Russia: Risks and prospects

Marina Kovalenko, St Petersburg State Technological University of Plant Polymers

Possibility of use of wood biomass for energy production in Hanty-Mancy Autonomous Region

Vladimir Holodkov, Bioenergy Centre

Can biomass outcompete gas in the Russian district heating sector?

Peter Dannbring, ÅF International

Swedish – Russian co-operation for bioenergy development in Russia

Ass Prof Tatjana Stern & Ass Prof Bengt Hillring, Swedish University of Agricultural Sciences

Research of biomass use within ISTC program "Alternative energy sources"

Prof Waclaw Gudowski, ISTC, Konstantin Latynin, Prof Alexandr Konstantinov, International Science and Technology Centre

Practical support instruments from the Swedish Government in connection with infrastructure projects

Jan-Olof Nyström, Ministry for Foreign Affairs

Industrial production of wood pellets in Russia

Dr Olga Rakitova & Anton Ovsyanko, NBU/Wood-portal

Alexander Dyachenko, Alternative Fuel Biotechnology Ltd.

Development of technology of slagless burning granulated agricultural waste products and designing and manufacturing of a boiler where this technology is applied

Ass Prof Rafail Isyemin, Tambov Technical University

SESSION 7:

Financing and investment

Chairperson: *Anders Haaker, Swedish Bioenergy Association*

Hot markets for bioenergy - The Swedish perspective

Cecilia Schartau, Swedish Trade Council

The challenge of investments in green growth

His Excellency Ambassador Andrew Mitchell, The British Embassy in Stockholm

Project development – implementing possibilities

Ola Rosén, Grontmij

Principals for a new World Bioenergy Investment fund

Douglas Bradley, Canbio

The Sveg Energy Combine

Lars Fritz, NBE Sweden

SESSION 8:

Towards zero emission vehicles

Chairperson: *Dr Ulrich Bünger, Ludwig-Bölkow - Systemtechnik GmbH*

Towards zero emission vehicles – an introduction

Dr Ulrich Bünger, Ludwig-Bölkow - Systemtechnik GmbH

The role of zero emission vehicles in achieving stringent CO_2 targets - Results from global energy systems modeling

Dr Maria Grahn, Dep of Energy and Environment, Physical Resource Theory, Chalmers University of Technology

The role of California´s Zero Emission Vehicle (ZEV) mandate yesterday, today and tomorrow

Prof Daniel Sperling, Institute of Transportation Studies, University of California, Davis

Why is Germany the leading European region in hydrogen and fuel cells for transport?

Dr Klaus Bonhoff, Nationale Organisation Wasserstoff- und Brennstoffzellentechnologie

Experiences and strategies for introduction of zero emission city cars

Egil Mollestad, Think Global

Levering the COP15 conference for promoting zero emission vehicles

Birte Busch Thomsen, City of Copenhagen

This session ends at 17.30!

SESSION 25:

Pyrolysis of biomass

Strategy of thermal treatment of biomass in Russia

Prof. Esther Sulman, Instiute of nano- and biotechnologies, Tver Technical University

Green hydrocarbons from residual biomass: The fast pyrolysis technology pathway

Randal Goodfellow, Ensyn Corp.

SESSION 27: Poland-Sweden: R&D co-operation development within bioenergy, clean vehicles and fuels

Chairperson: *Malgorzata Musinska-Kubis, Trade and Investment Promotion Section of the Embassy of the Republic of Poland*

Opening of the session:

Waldemar Pawlak, Deputy Prime Minister, Minister of Economy

Strategy and policy for development of bioenergy in Poland

Henryk Majchrzak, Director of Energy Department, Ministry of Economy

Swedish-Polish sustainable energy platform

Mikael Backman, The International Institute for Industrial Environmental Economics at Lund University (IIIEE)

Biomass conversion for small and large scale electricity and heat production from biomass

Wlodzimierz Blasiak, Professor, Royal Institute of Technology (KTH) Stockholm

Hybrid and electric vehicle development at Warsaw university of technology

Prof Antoni Szumanowski, Head of Multisource Propulsions Systems Department, Warsaw University of Technology, Faculty of Automotive and Construction Machinery, Institute of Construction Machinery Engineering

Swedish experience and Polish expectations - Biogas as a transport fuel

Magdalena Rogulska, The Institute for Fuels and Renewable Energy (IPiEO)

Polish bioEthanol as a clean alternative for urban heavy transport - Case study

Mathias Olofsson, Product Manager, SEKAB

Bioethanol development in the Swedish transport section

Lena Nordgren, Managing Director, BioAlcohol Fuel Foundation (BAFF)

Summary

Mikael Backman and Magdalena Rogulska

Conference, 17 September

09.00 - 10.30 Parallel sessions No. 9 - 13

SESSION 9:

Green house gas (GHG) balances and bioenergy systems analysis

Chairperson: *Kees Kwant, NOVEM*

GHG balances of bioenergy systems - An overview of LCA methodological issues

Francesco Cherubini, Joanneum Research

Environmental impact assessment of exported wood pellets from Canada to Europe

Francesca Magelli, University of Bologna (invited)

GHG calculations of biofuel crops and biogas production in Sweden for EU's RES directive

Serina Ahlgren, Swedish University of Agricultural Sciences

Bioenergy systems analysis

Prof Leif Gustafsson, Mid-Sweden University

Calculation of GHG of biofuels

Per Godfroij, Biofuel Cities/Senternovem

GHG benefits of biofuels from a systems perspective

Pål Börjesson, Lund University

SESSION 10:

The role of media

Chairperson: *David Landes, The Local, www.thelocal.se*

Topical issues influencing the biofuels market

Tom Mulligan, Biofuels Innovator

Reporting of biofuels - the challenge of keeping the facts right

Jakob Lagercrantz, Gröna Bilister/ Green Motorists

Understanding the media landscape, processes and trends

Peder Söderlind, Rikard Svensson, Glykol AB, Sweden, A.W.B

Examples of inaccurate media coverage and their consequences

Lennart Ljungblom, Novator AB

The session will end with a panel discussion.

SESSION 11:

Biogas and landfill gas - Production, use and future trends

Chairperson: *Dr Arthur Wellinger, European Biogas Association (EBA)*

From waste to wheel

Lars Holmquist, Göteborg Energi

Small scale handling and treatment of organic waste

K.S Sudhakar, Hand in Hand

Biomethane from landfills into the North American gas grid

Dr Diane Saber, Gas Technology Institute

Transfer of knowledge and business opportunities

Peter Undén, Swedish Biogas International

SESSION 12:

Possibilities for and cooperation with developing countries

Chairperson: *Sun Biney, WSP*

The role of agroforestry in bioenergy production

Ngolia Kimanzu, Vi Agroforestry

Bioenergy, climate and development: Challenges and opportunities

Fiona Lambe, Stockholm Environment Institute

The role of developing countries in sustainable biofuel production

Dr Rocio Diaz-Chavez, Imperial college

Successful bioenergy cooperation in Asia

Therése Hindman Persson, Econ Pöyry

SESSION 13:

Clean vehicles - User experiences cars and heavy vehicles

Chairperson: *Björn Hugosson, City of Stockholm*

100 % clean taxi fleet for commercial reasons

Mats Ekelund, Taxi Stockholm

Biogas vehicles - User experiences from European cities with the BIOGASMAX project

Gildas le Saux, Lille Métropole Communauté Urbaine

Hydrogen vehicles in Hamburg

Heinrich Klingenberg, hySOLUTIONS

Experiences from public transport buses on biodiesel, ethanol and natural gas

Dr Juan Angel Terron Alonso, EMT - Public Transport Company Madrid

10.30 - 11.00 Coffee, Exhibition and Networking

▶ Please visit www.wbcvf2009.se as more speakers and sessions will be added continuously!

11.00 - 13.00 Parallel sessions No. 14 - 18

SESSION 19:

Production of biomass for energy in abandoned agricultural lands and degraded lands

Chairperson: *Dr Giuseppe Caserta, Italian Biomass Association*

- Desirable crops and crop characteristics for biomass production on marginal lands
  Prof Martin Weih, Swedish University of Agricultural Sciences
- Jatropha and Moringa provide Zambians with nutrition and fuel
  Jennipher Handoondo, National Farmers Union's Oil Seed Commodity Unit, WBA
- Tree biomass as an important source for energy production
  Prof Tord Johansson, Swedish University of Agricultural Sciences
- More light on Jatropha and its opportunities to investors
  Ohene Kwadwo Akoto, Jatropha Africa Ltd.
- Biofuel production from tropical wastelands – Viability, land use and food security issues
  Dr George Francis, Live Energies GmbH
- Initial research results on Jatropha development for feedstock and biodiesel production in Vietnam
  Le Quoc Huy, Center for Biotechnology in Forestry, Forest Science Institute of Vietnam (invited)

SESSION 15:

Biomass combustion and co-firing

Chairperson: *Prof Ingwald Obernberger Bios Bioenergiesysteme GmbH*

- Conversion to bioenergy with multifunctional environmental solutions - Examples from Eastern Europe
  Eddie Johansson, Rindi Energi AB
- Biomass boiler Söderhamn - Two years of operation experience
  Markus Bolhàr-Nordenkampf, Austrian Energy & Environment
- The DÅVA plant - Thoughts behind the new boiler
  Ulf Kullh, Umeå Energi AB
- Biopower in Asia - An overview
  Prof S.C. Bhattacharya, International Energy Initiative, WBA
- Co-firing in Poland, practical example: Installation of 45 % biomass, 55 MWe coal plant, commissioned in May 2009
  EDF-kogeneratia, Wroclaw
- Microalgae an alternative to coal for power generation
  Dr Mukesh T. Pandya, Jai Hind College

SESSION 16:

Commercialising first and second generation biofuels from biomass

Chairperson: *Prof Ralph Sims, Center of Energy Research, Massey University & IEA (invited)*

- Development in Canada for liquid biofuels
  Douglas Bradley, Canbio, WBA
- Integrating second generation conversion processes with existing first generation bioethanol technology
  Josef Modl, Vogelbusch
- Syngas from black liqour, FT-diesel and DME
  Patrik Löwnertz, Chemrec
- Commercialisation of biomethane for vehicles
  John Baldwin, CNG Services Ltd
- Advantages of RME
  Anders Hultgren, Perstorp Bio Products AB
- MicroDrivE - Domestication of micro-organisms for sustainable biofuels processes
  Prof Johan Schnürer, Swedish University of Agricultural Sciences

SESSION 17:

Sustainable International bioenergy trade

Chairperson: *Josephine Brennan, SEKAB International*

- Global resources of biomass
  Prof Andre Faaij, Copernicus Institute, Utrecht University
- International bioenergy trade
  Bo Hektor, IEA Bioenergy task 40
- World wide potential of aquatic biomass
  Anouk Florentinus, ECOFYS
- Sustainable palm oil production in Malaysia
  Dr Nagendran Bala Sundram, Mission of Malaysia to the European Communities, Brussels
- Barriers to international bioenergy trade - EUBIONET III
  Eija Alakangas, VTT
- International bioenergy trade in view of sustainability criteria
  Dr Jinke van Dam, Copernicus Institute, Utrecht University

SESSION 18:

Infrastructure for renewable fuels

Chairperson: *Prof Roland Clift, University of Surrey*

- Change of energy infrastructures – Lessons from a historical perspective
  Prof Arne Kaijser, Royal Insititute of Technology, Division of History of Science and Technology
- EU-policy and infrastructure for alternative fuels
  Jørgen Henningsen, European Policy Center (EPC)
- Why has the building of biomethane infrastructure in Sweden been successful?
  Hans Kreisel, E.ON Gas
- Infrastructure to give electric cars unlimited range
  Jens Moberg, Better Place
- The role of hydrogen in the development of renewable fuels
  Hilde Strøm, StatoilHydro

13.00 - 15.00 Lunch, Exhibition and Networking

15.00 - 17.00 Session No. 14 (Daily study visits, see p. 10. Side Events, see p. 23)

Short rotation crops for bioenergy systems ***Chairperson:*** *Gustav Melin, Swedish Bioenergy Association*

- Crop breeding development of willow (Salix) for biomass production, *Stig Larsson, Lantmännen Agroenergi AB*
- Production of willow (Salix) in Europe - Potentials and challenges, *Henrik Bach, Ny Vraa*
- Small scale Salix plantations: Development of harvesting technology and logistics for higher profitability
  Maya Forsberg, JTI - Swedish Institute of Agricultural and Environmental Engineering
- Development of improved shrub willow bioenergy crops for North America
  Ass Prof Lawrence B. Smart, Cornell University
- Establishing and managing SRC systems for waste water treatment - The Enköping model
  Dr Pär Aronsson, Swedish University of Agricultural Sciences
- Generators perspective on biomass availability, *EON Lockerbie, Scotland*

15.00 - 17.00 Session No. 26 (Daily study visits, see p. 10. Side Events, see p. 23)

Biomass combustion & cofiring II

Chairperson: *Prof Ingwald Obernberger, Bios Bioenergiesysteme GmbH*

- Co-firing with peat - Improved profitability and climate neutral CHP production with complex biomass fuels
  Jan Burvall, Skellefteå Kraft AB (invited)
- Development of new technologies of biomass thermal treatment for production of electrical and thermal energy
  Prof. Viktor Zaitchenko, Russian Academy of Sciences
- Combustion of waste material, *Mattias Lindgren, Swebo Bioenergy International*
- Combustion of 2 million tonnes of wood pellets
  Chris Young, Ontario Power Generation, V-P Fossil Development, (invited)

Conference, 18 September

09.00 - 10.30 Parallel sessions No. 20 - 24

SESSION 20:

Biomass production for energy from sustainable forestry

Chairperson: *Prof Sergey Karpachev, Moscow State Forest University*

- Can we remove biomass for energy in sustainable forestry?
  Dr Hillevi Eriksson, Swedish Forest Agency
- Returning forests analyzed with the forest identity
  Prof Pekka Kauppi, University of Helsinki (invited)
- More efficient forest fuel systems
  Prof Rolf Björheden, SkogForsk
- Future forest
  Dr Tomas Lundmark, Swedish University of Agricultural Sciences

SESSION 21:

Upgrading of solid biomass fuels

Chairperson: *Ass Prof Raida Jirjis, Swedish University of Agricultural Sciences*

- Canadian pellet trails
  John Swaan, Wood Pellet Association of Canada
- Environmentally safe charcoal technologies
  Jury Judkevich, Lonas Technologia CJSC, ÅF
- Innovative and energy efficient pellet production technology
  Liam O'Connor, Kerry Biomass Ltd.
- New effective technology for simultaneous decomposition and drying of biomass
  Pavel Slipchenko, SPIKO Ecoenergy Ltd.
- Recent developments in the Swedish and European pellet markets
  Tomas Isaksson, Stora Enso Timber AB/ PiR - Swedish Association of Pellet Producers (invited)

SESSION 22:

Thermal gasification of biomass

Chairperson: *Dr Jörgen Held, Svenskt Gastekniskt Center AB*

- Renewable energy from gasification in the future European energy system
  Prof Dr Ing Martin Kaltschmitt, German Biomass Research Center
- The MILENA gasification process for the production of Bio-CNG
  Dr Christiaan van der Meijden, Energy Research Center
- Thermal gasification of black liquor in Piteå, Sweden
  Chemrec AB
- Integrated biomass gasification and Fischer-Tropsch systems
  Prof Georg Schaub, Engler-Bunte-Institut Karlsruhe University, Karlsruhe Institute of Technology

SESSION 23:

Support and inspiration for procurement of biofuels and clean vehicles

Chairperson: *Eva Sunnerstedt, City of Stockholm*

- Presentation of a guide to sustainable biofuels procurment in the fields of transport
  Peter Defranceschi, ICLEI/Biofuel Cities
- Experiences of procurment of biofuels for public transport
  Anders Roth, City of Göteborg
- Experiences from procurment of clean cars
- Certified methane gas for vehicles according to Nordic Ecolabelling
  Tula Ekengren, FordonsGas Sverige

SESSION 24:

How to establish a sustainable market for clean vehicles & fuels

Chairperson: *Mark Simon, City of New York*

- Handbook for successful implementation of clean vehicles and fuels
  Floris Mulder, BioFuel Cities/Senternovem
- Creating and establishing a market for bioethanol vehicles in Europe - Experiences from the BEST project
  Gustaf Landahl, City of Stockholm and co-ordinator of the BEST project
- Development of CNG use in vehicles in Iran
  Mahmoud Reza Bagherbeiktabrizi, National Iranian Gas Co. (NIGC)

10.30 - 11.00 Coffee, Exhibition and Networking

▶ Please visit www.wbcvf2009.se as more speakers and sessions will be added continuously!

Final plenary session, 18 September

11.00 - 13.00 Final plenary session

Chairperson: *Dr Tomas Kåberger, Director General, Swedish Energy Agency*

What have we learned and how to move forward with bioenergy

Gustav Melin, Swedish Bioenergy Association

What have we learned and how to move forward with clean vehicles and fuels

Gustaf Landahl, City of Stockholm

Low carbon fuel standards in California, USA and EU

Prof Daniel Sperling, Institute of Transportation Studies, University of California, Davis

New global agreement on GHG emission reduction and role of Russian renewable energy

Dr Alexey Kokorin, World Wildlife Foundation

China goes from fossil to bio-electricity

Kai Johan Jiang, Dragon Power Group Co., WBA

Global potential for sustainable bioenergy

Kent Nyström, World Bioenergy Association

Panel of most interesting speakers from the parallel sessions

13.00 - 14.00 Lunch, Exhibition and Networking

Gustav Melin, Svebio, Swedish Bioenergy Association

Gustaf Landahl, Clean Vehicles and Fuels, City of Stockholm

Kent Nyström, World Bioenergy Association

Prof Daniel Sperling, Institute of Transportation Studies, University of California, Davis

▶ Please visit www.wbcvf2009.se as more speakers will be added continuously!

Side event, 15 September

Side Events are specialist and/or targeted sessions such as project meetings, work-shops etc that are organised by a third party. With the exception of the offical meeting hosted by the Swedish Energy Agency, these are open for conference delegates to participate in and included in the conference fee.

Side event 1, 09.00 – 16.00

Lignocellulosic ethanol in focus

From R&D to Industry: meet the researchers and the stakeholders.

Advances in lignocellulosic ethanol – a workshop on the NILE project

'NILE' (New Improvements for Ligno-cellulosic Ethanol) is the EU's flagship project on ethanol production from lignocellulose via biochemical processes. It has run since October 2005 and involves 22 partners from 11 countries. In the first four of this morning's presentations, partners from the project will summarise the results they have achieved. After each presentation, 5-10 minutes will be set aside for questions. Two guest speakers from outside the project will also speak at the workshop. They will put NILE's work into a wider context.

Part 1. Biochemical routes to lignocellulosic ethanol – latest results from the 'NILE' project

09.15-09.45 **Frédéric Monot, IFP**
Enzymatic hydrolysis

09.45-10.15 **Bärbel Hahn-Hägerdal, Lund University**
Fermenting lignocellulose with yeast

10.15-10.45 **Jan Lindstedt, SEKAB/BioAlcohol Fuel Foundation**
Process technology

10.45-11.00 Coffee break

Part 2. The path to market

11.00-11.30 **Raphael Slade, Imperial College**
Lifecycle cost analysis of lignocellulosic ethanol and the policies to support it

11.30-12.00 **Jinke van Dam, Utrecht University**
Constraints on the biomass resource

12.00-12.30 **Harry Boyle (tbc), New Energy Finance**
Investing in second generation bioethanol technology

12.30 Lunch break

"Stakeholder Forum" - Commercialising the technology for second-generation ethanol production from lignocellulose

13.30-14.30 Representatives from DOE and EU will present recently announced plans to scale up lignocellulosic ethanol production technology

14.30-15.15 Examples of industrial scale-up. Presentation from consortia bidding for funding from the European Commission´s R&D budget, "the 7th Framework Programme"

15.15-15.30 Coffee break

15.30-16.00 Discussion
Can conclusions be drawn on the best industrial concept and the barriers that must be overcome for lignocellulosic ethanol to become commercial?

Contact: Karin Sandström, SEKAB, karin.sandstrom@sekab.com, +46 (0)660-751 91, +46 (0)70-607 87 20

For an up-dated Side Event programme and registration, visit www.wbcvf2009.se

Side event 2, 15:00 – 17:30

Stockholm Environment Institute, Climate and Energy Programme

Theme: Supporting the Bioenergy Transition

Globally, the use of traditional biomass for cooking, lighting and heating is greater in energy terms than all the other forms of "renewable" energy combined, even after all of the tremendous efforts to promote renewable energy during the past decade. The use of traditional biomass is responsible for serious health, social, and ecological impacts in the developing world, and especially in sub-Saharan Africa.

The Bioenergy Transition refers to the transformation in the use of bioenergy from traditional uses for cooking and heating, to more modern and efficient forms in the household, power, and transport sectors. In some cases, the transformation can be accomplished directly, such as the substitution of ethanol for wood and charcoal in household cooking. In most cases, however, it is more indirect, since it is intimately connected to the process of economic development and the effort to revive rural economies and create new agro-industries.

In this side event, we will present some of the fundamental challenges and opportunities associated with the Bioenergy Transition, with a special focus on sub-Saharan Africa, and we will discuss key areas of international cooperation in terms of research, programme support, and policy formulation. The presentations by panellists will be followed by a moderated discussion with the audience.

Organisations/panellists (to be confirmed):

- Gaia Association, Ethiopian NGO
- World Health Organisation (WHO), Indoor Air Pollution sector
- Yale School of Forestry & Environmental Studies
- University of Dar es Salaam
- Asian Institute of Technology (AIT)

Contact persons at SEI:

Fiona Lambe, Research Associate, Climate and Energy Programme, fiona.lambe@sei.se

Francis Johnson, Senior Research Fellow, Climate and Energy Programme, francis.johnson@sei.se

For an up-dated Side Event programme and registration, visit www.wbcvf2009.se

Interested groups/organisations/project co-ordinators are welcome to arrange an open project meeting or workshop as a Side Event. For further information, please contact Alan Sherrard on ph: +46 (0)76-626 01 35 or e-mail: alan@acuityflux.se

Side event 3, 15.00 - 17.00

Global potential for sustainable bioenergy - World Bioenergy Association's offer to COP15

Welcome to discuss World Bioenergy Association's position paper towards the Climate Conference in Copenhagen on the global potential for bioenergy. Your input will be appreciated!

The World Bioenergy Association (WBA) is an effort to provide the wide range of actors in the bioenergy sector a global organisation to support them in their endeavors. The WBA board recently decided to create working groups to address a number of important global bioenergy issues including certification, sustainability, and standardisation. By working together, the bioenergy sector can responsibly build the market for bioenergy.

Check the www.worldbioenergy.org for more news and information.

For an up-dated Side Event programme and registration, visit www.wbcvf2009.se

Contact: Karin Haara, WBA, karin.haara@worldbioenergy.org or
Magnus Åstrand, WBA, magnus.anstrand@worldbioenergy.org

Side event 4, 15.00 - 17.00

3rd BITES Workshop

BITES is a pan-European dissemination action for the promotion and uptake of biofuel chains in Europe. Promoted by five national associations, the project globally gathers more than 600 members representing different regions of the EU with the support of a specialised communication agency. The project identifies biofuel demonstration projects or initiatives that have proven successful in developing high performance, to be economically viable and compliant with EU regulations on biofuel chains.

During this workshop a number of high performing best practices cases on biogas, biodiesel and ethanol from around Europe will be presented. This is a great opportunity to get an overview of the most recent and most significant experiences in the sector.

For more information about the BITES EU-project, visit www.biofuelshowcase.eu

For an up-dated Side Event programme and registration, visit www.wbcvf2009.se

Contact: Jonas Höglund, Svebio, jonas.hoglund@svebio.se, +46 (0)8-441 70 77, +46 (0)73-941 70 11

Photo: Sun Biney

Side events, 17 September

Side event 5, 15.00 - 17.00

2nd ECOINNO2SME Transnational Workshop

ECO-Innovation is of crucial importance for the economic development and of high actual public interest in Europe, not least in areas of energy and waste management. Much of this innovation is carried out in project form with the involvement of small- and medium sized enterprises (SME's).

ECOINNO2SME is a pan-European project with 7 partners from 7 European countries each experienced in supporting SMEs with the dissemination and exploitation of research results. Together with SME's the project evaluates completed FP5/6-projects to identify key success factors and good practices for dissemination and exploitation of results. The overall aim of the project is to reinforce the dissemination and exploitation of project results of SME's in such a way that they are supported to bridge the gap between research and exploitation. Thereby expanding their businesses and raising their competitiveness in the world markets.

This workshop will look into the exploitation of RTD-project results, the common denominators of successful exploitation plans and discuss various issues on how to improve exploitation plans of RTD-project results for SME's.

For more information about ECOINNO2SME, visit www.ecoinno2sme.eu

For an up-dated Side Event programme and registration, visit www.wbcvf2009.se

Contact: Hartmut Welck, Steinbeis-Europa-Zentrum,
ecoinno2sme@steinbeis-europa.de, ph +49 (0)7-11 123 40 31

Side Event 7, 15.00 - 17.00

Maryland Side Event (preliminary)

Contact:
Ross Tyler, Director of Clean Energy, Maryland Energy Administration,
RTyler@energy.state.md.us, (410) 260 7544

Elise Lyons, elyons@choosemaryland.org

Side event, 18 September

Side event 6, Bioenergy – A sustainable resource for an efficient system approach

Policy conference part of the Swedish EU presidency. Delegates will include Director Generals from Energy Ministries accross all EU member states.
Hosted by the Swedish Ministry of Enterprise, Energy & Communications.

By invitation only.

Contact: Christopher Walden, Swedish Energy Agency, International Secretariat,
e-mail: christopher.walden@energimyndigheten.se or ph: +46 (0)16-544 2245

Exhibition and co-branding opportunities

MAKE THE MOST OF IT WITH OUR BUSINESS READY BOOTHS (B-R-B)

Capitalise on your networking at the conference by profiling your organisation on site. Available in a range of sizes from 6 up to 24 sq.m our special B-R-B packages are designed and priced to provide a cost effective, convenient and functional exhibit. Just arrive with your brochures, roll-ups and briefcase, leave the rest to the organisers. A three day conference pass is included in the price (No. depending on stand size).

Book your booth now as space is limited! For availability and prices contact Alan Sherrard on tel: +46 (0)76-626 01 35 or e-mail: alan@acuityflux.se.

CO-BRANDING OPPORTUNITIES

With high-profile speakers and high-powered delegates, World Bioenergy – Clean Vehicles & Fuels 2009 is an ideal networking forum unlike any other. Take advantage of this exclusive opportunity to leverage maximum market attention, cost-efficiently, by choosing one of our competitively priced and convenient marketing packages.

Provide your organisation with exclusive exposure to your target audience. Discuss your needs in confidence today! Contact Alan Sherrard on tel: +46 (0)76-626 01 35 or e-mail: alan@acuityflux.se.

Match making

With large gatherings of potentially interesting business, cooperation or research prospects the challenge is to prioritise meeting those most relevant to your organisation. To enhance qualified networking during WB-CVF 2009 the organisers together with the Enterprise Europe Network will provide a special match making service during WB-CVF 2009. There is no additional cost associated with this service.

The underlying principle is simple: by knowing in advance who is coming and what their particular interest is you can better prepare your meeting from a set agenda. The individual meetings take place during the event either on the exhibitor stands or on the Enterprise Europe Network stand.

- You have to register in an online database by providing a profile of your company / organisation and one or more technology or service offers or requests, which are published in the online database
- From this database you can select the technology or service you are interested in, to arrange a bilateral meeting during the event
- Book one-to-one meetings with your preferred contacts and monitor the number of meetings organised for your company
- You will get regular updates of your appointment schedule either on your booth, or at the EEN service desk
- Your meetings will be held on the EEN service area or for exhibitors the meetings can be arranged at their own booth

Note that all conference delegates will be notified when this service opens for profile registration approximately 8-10 weeks prior to the event itself. More on www.wbcvf2009.se

ABOUT

The Enterprise Europe Network offers support and advice to small and medium sized enterprises (SME's) across Europe assisting them to make the most of the opportunities in the European Union. It is made up of 600 partner organisations in more than 40 countries, all promoting competitiveness and innovation at the local level in Europe and beyond.

Contact: Enterprise Europe Network Jönköping AB, Attn: Ms Ellen Carlsson
Ph. +46 (0)36-30 14 62, Fax. +46 (0)36-30 14 69, E-mail: ellen@eenjonkoping.se
www.enterpriseeurope.se

Social programme, 16 - 18 September

Welcome to Stockholm, one of the world's most beautiful capitals. Built on 14 islands around one of Europe's largest and best-preserved mediaeval city centres, the Swedish capital is superbly positioned, with stunning and extremely varied scenery in every direction. Stockholm offers a wealth of museums, theatres, sights, attractions and events.

Make your stay in Stockholm wonderful, exciting, thrilling, romantic or whatever you feel like. Everything you need to know, you find in The Official Visitors Guide:
www.stockholmtown.com or www.sweden.se

15 September, Ice breaker reception at Stockholm International Fairs & Conference Center in Älvsjö

An informal drop-in opportunity with a light buffet, drinks and entertainment for those of you who arrive on 15 September. You can register your arrival, collect your conference programme and delegate packs. For those of you participating in the exhibition, it is possible to start preparations. This is a perfect opportunity to get to know the premises and socialise with other delegates.

This activity is included in the conference fee.

16 September, Official buffet reception at City Hall, Blå hallen

The City Hall of Stockholm is one of the most beautiful and well known buildings in the world and well known for its hospitality, its unique art treasures, magnificent banquettes and an intriguing history attracting close to 400,000 visitors a year.

Delegates are invited, by the City of Stockholm, to an official buffet reception in the same hall as the Nobel Prize Banquet annually is held.

This activity is included in the conference fee.

17 September, Dinner cruise

Experience the magnificence and maritime tranquility of a dinner cruise in the Stockholm archipelago. With over 30,000 islands, islets and skerries the Stockholm archipelago is one of the largest in the Baltic Sea region. Most of these are accessible by boat or car within 2 hours from the city. Indeed about 1 000 of these are inhabited which is unique.

This activity is additional and not included in the conference fee.

The City Hall, venue for the annual Nobel Prize Banquet.

One of the many boats that can be seen in service in the Stockholm archipelago

Useful information

REGISTRATION - HOW TO REGISTER

To register, log onto www.wbcvf2009.se and follow the online instructions. Once payment via credit card has been made an order confirmation detailing your registration will be made. Please ensure that you save/print a copy of this confirmation. You can, within the limitations of the cancellation terms, revise or amend your registration using the login code found on your order confirmation. As space is limited on some options, delegate registration is processed on a first-come, first-serve basis. Activities included in the registration fee need to be pre-booked. If you have any questions in connection with your registration, please do not hesitate to contact the Conference Secretariat, see page 30. On-site registrations during the event will be accepted with payment by credit card only.

FEES

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

	Regular	Exhibitors	Students
3 days (16-18 Sept.)	7 000 SEK	5 250 SEK	3 500 SEK
2 days	6 000 SEK	4 500 SEK	3 000 SEK
1 day	5 000 SEK	3 750 SEK	2 500 SEK
Ice breaker reception, 15 Sept.	Included	Included	Included
Official buffet reception, 16 Sept.	Included	Included	Included
Optional activities:			
Pre conference tour 1 (Piteå)*	200 SEK	200 SEK	200 SEK
Pre conference tours 2 - 4	1 200 SEK	1 200 SEK	1 200 SEK
Dinner cruise, 17 Sept.	750 SEK	750 SEK	750 SEK

The conference fee includes access to World Bioenergy - Clean Vehicles & Fuels 2009 conference, exhibition, the integrated daily study visits, departure event, side events and conference documentation. A light lunch and coffee/tea during morning and afternoon breaks are also included, as well as the Ice-Breaker on 15 September and the Official Buffet reception on 16 September.

Please note that the pre conference tours on the 14 and 15 September and the conference dinner on 17 September are additional payable options. The fee quoted for pre conference tour 2-4 includes all activities, meals and travel costs as specified.

*Pre conference tour 1 (Piteå) does not include travel costs and accommodation.

Kindly note that these activities are tentative and subject to change. All prices quoted are in Swedish kronor (SEK) and exclusive VAT. For all participants an additional 25% VAT will be charged.

DISCOUNTS

A 25% discount on the conference fee is available for exhibitors and members of the organising associations. A 50% 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 may be required as proof. Discounts cannot be combined.

CONFIRMATION

A confirmation letter will be sent well in advance, confirming booked activities and payment status. This letter has to be presented when you register at the conference venue.

CANCELLATION POLICY

For cancellations received by 16 August 2009 a 800 SEK cancellation fee is charged. For cancellations received thereafter no refund can be made. Cancellations must be made in writing and sent to the Conference Secretariat. Instead of cancelling it is possible to transfer the registration to another person. Please contact the Conference Secretariat, see page 28. Note that refunds will be processed and made within 1 month after the event has taken place.

LETTER OF INVITATION

The Conference Secretariat is able to provide Letters of Invitation to delegates who require such a document as part of their visa application to attend the event. Please note that the letter is not a commitment on the part of the organisers to provide any form of financial support. Furthermore visa decisions are entirely at the discretion of the issuing authority. It is the responsibility of the delegate to ensure that they are in compliance with and fulfil visa terms and conditions. Deadline to apply for the Letter of Invitation is on 4 September 2009. Contact the Conference Secretariat: confirmation-sweden@mci-group.com.

Useful information

ACCOMMODATION & HOTEL RESERVATION
Via online registration on www.wbcvf2009.se
See map on next page for locations of recommended hotels.

BADGES
The participant's name badge will be provided at the registration desk. All participants are requested to wear the badge throughout the conference. Only badge holders will be admitted to the sessions.

CURRENCY
The currency in Sweden is Swedish kronor, SEK. The approximate exchange rate in May 2009 were 10.90 SEK per Euro. For up-to-date exchange rate information, visit www.forex.se

LANGUAGE
The official congress language is English. There will be no simultaneous interpretation.

PRESS
Authorised members of the press are welcome to cover the World Bioenergy - Clean Vehicles & Fuels 2009. More information on www.wbcvf2009.se

PROGRAMME UPDATES
Please note that the programme is subject to change. Latest news about World Bioenergy - Clean Vehicles & Fuels 2009 and updated programme can be found on www.wbcvf2009.se

STOCKHOLM PUBLIC TRANSPORT - SL
Transportation in Stockholm is efficient, convenient and safe. Many of the downtown buses run on environmentally friendly fuels such as ethanol. More info on www.sl.se
Tickets can be purchased at the SL Center, subway turnstile booths, Pressbyrå shops, ticket machines or by SMS. You can not pay cash for tickets on the buses in Stockholm. Most bus stops have ticket machines that accept both coins and cards.

SWEDEN
For more information about Stockholm and Sweden, what's happening and more, visit www.stockholm-town.com

TAXI IN STOCKHOLM
Licensed taxis with taxameters always have yellow number signs. Many of the taxis run on environmentally friendly fuels. These taxi companies have the same rates so please make them your first choice!
Recommended taxi companies:
Taxi Stockholm, www.taxistockholm.se,
+46 (0)8 150 000
Taxi Kurir, www.taxikurir.se, +46 (0)8 300 000
Taxi 020, www.taxi020.se, +46 (0)20 202 020
Ask for fixed rates if you're going by taxi to and from Stockholm International Fairs or any of the airports.

TRAVEL TO STOCKHOLM
Stockholm is serviced by four international airports, and all of them have good connections to downtown and the rest of the country. www.arlanda.se

Arlanda Airport:

Stockholm-Arlanda is the largest airport in Sweden, and one of the most environmentally friendly airports in the world in terms of emissions targets.
Express train:
The Arlanda Express is the train service that links Stockholm City with the airport. The trip takes 20 minutes. More info on www.arlandaexpress.com
Bus:
There is a direct bus connection (Flygbussarna, Airport coaches) from Arlanda Airport to the City Terminal in Stockholm. The bus leaves Arlanda Airport every 10 minutes and the travel time is about 40 minutes. More info on www.flygbussarna.se

Bromma Airport:
Bromma Airport is only 20 minutes away from Stockholm city centre. More info on www.brommaairport.se
Bus:
The schedule of the Flygbussarna Airport coaches to and from Stockholm-Bromma Airport is adapted to flight arrivals and departures.
More info on www.flygbussarna.se

Stockholm Skavsta Airport:
Stockholm Skavsta Airport is 1 hour and 20 minutes away from Stockholm city centre, www.skavsta.se
Bus:
Flygbussarna Airport coaches operates to and from Stockholm Skavsta Airport.
More info on www.flygbussarna.se

Stockholm Västerås Airport:

Stockholm Västerås Airport is 1 hour and 15 minutes away from Stockholm citry centre, www.stockholm-vasteras.se
Bus: Flygbussarna Airport coaches operates to and from the airport to connect with Ryanair arrivals and departures. More info on www.flygbussarna.se

By train to Stockholm
More info on www.sj.se (SJ, Swedish State Railways).

VENUE
The World Bioenergy - Clean Vehicles & Fuels 2009 event will be held at Stockholm International Fairs & Conference Center (Stockholmsmässan) in Älvsjö, just about 10 minutes from the City Centre by commuter train. From Arlanda Airport, it takes less than an hour by car or by bus.

Stockholm City Map

LEGEND

A Stockholm International Fairs & Conference Center - Stockholmsmässan

B Central Station / City Terminal
Arrivalpoint for trains and buses from Arlanda Airport and to/from Stockholm International fairs & Conference venue

C City Hall - Stadshuset

ACCOMMODATION

★★★★
1 Hotel Stureplan
2 Nordic Light Hotel
3 Nordic Sea Hotel
4 Rica Hotel Kungsgatan
5 Rica Hotel Stockholm
6 Rica Talk Hotel (next to the Fair)
7 Scandic Continental

★★★
8 Hotell Lilla Rådamannen

Not yet classified
9 Clarion Hotel Sign

World Bioenergy
Clean Vehicles & Fuels

Please note that Stockholm International Fairs & Conference Center (Stockholmsmässan, Älvjö station) is located appr. 10 minutes from the Stockholm Central Station by commuter train.

Overview of Stockholm International Fairs & Conference Center (Stockholmsmässan) in Älvsjö

World Bioenergy
Clean Vehicles & Fuels

Useful information

PATRON OF WORLD BIOENERGY
His Majesty King Carl XVI Gustaf of Sweden

CONFERENCE CHAIRPERSON
Director General, Swedish Energy Agency, Dr Tomas Kåberger

INTERNATIONAL ADVISORY BOARD
Prof S.C. Bhattacharya, International Energy Initiative, WBA
Prof Tony Bridgwater, Aston University
Dr Jens Bo Holm-Nielsen, University of Southern Denmark
Dr Giuseppe Caserta, Italian Biomass Association
Dr Tetsunari Iida, ISEP, WBA
Prof Sergey Karpachev, Moscow State Forest University
Prof Ingwald Obernberger, Bios Bioenergiesysteme GmbH
Prof Luis Ortiz, University of Vigo
Prof Ralph Sims, Centre for Energy Research, Massey University & IEA
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Prof José Roberto Moreira, CENBIO
Mr Mark Simon, City of New York
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Prof Roland Clift, University of Surrey
Mr Robert Stüssi, AVERE
Ms Josephine Brennan, SEKAB International
Mr Manuel Lage, NGVA Europe
Prof Daniel Sperling, Institute of Transportation Studies, University of California, Davis
Mr Colin Matthews, Joule Vert

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WORLD BIOENERGY - CLEAN VEHICLES & FUELS 2009 IS SUPPORTED BY

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MEDIA PARTNERS

About the organisers

Swedish Energy Agency

The Swedish Energy Agency, which was formed in 1998, works towards transforming the Swedish energy system into an ecological and economically sustainable system through guiding state capital towards the area of energy. This is done in collaboration with trade and industry, energy companies, municipalities and the research community. **www.energimyndigheten.se**

SVEBIO

Founded in 1980 the Swedish Bioenergy Association (SVEBIO) has some 300 member companies and organisations. The members represent vast experience in the bioenergy sectors like biomass and fuel production, transportation and trade, refining, utilisation, production of equipment, consulting, R&D and education. The overall SVEBIO mission is to increase the use of bioenergy in an environmentally and economically optimal way. **www.svebio.se**

Elmia

Elmia is Sweden's leading event organiser, having extensive experience in organising international tradeshows and conferences along with other special events. Annually around 20 exhibitions are held, such as Elmia Wood, World Bioenergy and Elmia Subcontractor, which are leading international exhibitions in their segments. **www.elmia.se**

BAFF BioAlcohol Fuel Foundation

The BioAlcohol Fuel Foundation was founded in 1983 and is a non-profit and non-governmental organisation involved in projects of sustainable transport around the globe. The foundation is responsible for projects related to production, distribution and usage of bioethanol as well as knowledge and information of systems change towards sustainable transport systems based on biofuels. **www.baff.info**

BIOGASFÖRENINGEN SWEDISH BIOGAS ASSOCIATION

Swedish Biogas Association was founded in 1987 and is a non-profit, non-political association that promotes biogas-technology. **www.biogasforeningen.se**

Hydrogen Sweden is a Public Private Partnership promoting hydrogen as an energy carrier in Sweden. The organisation has more than 40 members and financiers from industry, NGO's and local, regional and national government. Hydrogen Sweden is non-profit and promotes a balanced and pragmatic approach to hydrogen, exploring synergies with other alternative fuels and technologies. **www.vatgas.se**

GASFÖRENINGEN SWEDISH GAS ASSOCIATION

Swedish Gas Association is a member-based national association financed by stakeholders within the energy gas market. The aim is to increase the usage of biogas, vehicle gas (CNG), LPG, natural gas and hydrogen. **www.gasforeningen.se**

SWEVA

SWEVA is a non-profit association started in 1990 with the purpose to promote the introduction of electric vehicles in Sweden. The association is a union of users of and spokesmen of electrically powered road vehicles in Sweden. In order to achieve its purpose the association collects and spreads knowledge, influence politicians, influence the market for official bodies as well as for private companies, co-operates with other organisations devoted to environmentally acceptable vehicles. **www.sweva.org**

STOCKHOLMS STAD

The City of Stockholm

The City of Stockholm is the Capital of Sweden but also the Green Capital of Europe 2010. The city is one of Europe's most attractive locations for people and businesses looking for quality of life, growth and a vibrating knowledge-based society. The city has decided to be a fossil energy free city by 2050. **www.stockholm.se**

World Bioenergy, international conference and exhibition on biomass for energy, is organised by the Swedish Bioenergy Association SVEBIO and Elmia AB in Jönköping. Held biennially World Bioenergy 2008 had 200 exhibitors attracting 5 700 visitors of which 1 200 were conference delegates from 60 nations.

Clean Vehicles and Fuels, European symposium and exhibition on sustainable transport systems, is organised by the City of Stockholm, the Swedish Gas Association, the Swedish Biogas Association, Hydrogen Sweden, BioAlcohol Fuel Foundation BAFF and the Swedish Electric and Hybrid Vehicle Association SWEVA. Held biennially Clean Vehicles & Fuels 2007 attracted 400 delegates from 28 countries.

World Bioenergy - Clean Vehicles & Fuels 2009 is proudly organised by:

Swedish Energy Agency

Elmia

SVEBIO

BAFF
BioAlcohol Fuel Foundation

BIOGASFÖRENINGEN
SWEDISH BIOGAS ASSOCIATION

Hydrogen Sweden

GASFÖRENINGEN
SWEDISH GAS ASSOCIATION

STOCKHOLMS STAD

SWEVA

www.wbcvf2009.se