BIOMASS News

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AEBIOM promotes the Biomass to energy production paths and it´s applications throughout Europe. Therefore, AEBIOM is acting as a liason body to improve cooperation amongst European countries and help them to implement the following actions:

- Establish favourable legislative conditions for energy, agricultural and forestry sectors whilst taking into account energy crops
- establish favourable economic conditions through various incentives or via biomass and eco taxation of fossil fuels
- promote research, development and demonstration projects
- encourage information dissemination to decision makers and wide public

Welcome to the No 15 issue of AEBIOM Biomass News with focus on politcs. It has ben produced by Bioenergi Förlag, www.bioenergy-international.com. Editor Lennart Ljungblom

We have recently witnessed a far reaching change in the worlds' opinion towards Renewables Energies and bioenergy in particular.
In the USA a Nobel-prize winner and physic Steven Chu was nominated as a secretary for energy. During the nomination he declared that a change of the energy policy in the next decade will be decisive for the living conditions of the next centuries.

In Paris, in November 2008, the International Energy agency published the World-Energy-Outlook 2008 where it calls for an energy revolution with a low carbon energy system based on biomass, hydro and all other renewables, energy efficiency and also nuclear power and Carbon Capture and Storage.

Finally in Brussels, in December 2008, the European Institutions adopted a climate and energy package with the aim to more than double the share of Renewables in the energy mix by 2020 and to improve the energy security. The importance of an improved energy security was demonstrated in the first days of 2009 when due to a dispute between Russia and Ukraine, Gazprom cut off the gas supply to the European Union.

The global energy system is reaching a turning point: in the past the consumption of fossil fuels increased steadily. In the future we need a declining share of fossil fuels and an increasing share of renewable energies.

As it can be shown in Europe, from all biomass types (solid biomass for heat and electricity, liquid biomass for transportation and biogas for electricity) heat and transportation is by far the most important renewable energy carrier. At present biomass covers about 65% of all renewables in Europe; in 2006 the contribution of biomass to the energy system reached 89 Mtoe as compared to 62 Mtoe 4 years ago. The use of biomass in terms of final energy was as follows: 82% were used for heating, 11% for electricity and 7% for liquid fuels. The year 2008 showed that there is no contradiction between the development of liquid fuels and sufficient food production in Europe; the biofuel production increased and at the same time the prices for agricultural commodities decreased to very low levels.

Biomass has a huge potential. AEBIOM estimates that the contribution of biomass for energy can reach 220 Mtoe in 2020. Yet, this potential has to be mobilized. AEBIOM, as the European Bioenergy Association, is trying to develop this potential by various activities at the European level. In the last year several workshops were organized in the European Parliament on topics such as "Biomass in the new directive on RES", "Strategies for the pellets industry" or "Biogas – a promising renewable energy source for Europe".

The New Year offers a huge opportunity and challenge for bioenergy sector in Europe. The National Action plans on Renewables have to be developed in each member state, biomass as an alternative to fossil fuels especially in the heat market, but also for electricity in cogeneration units and as a transport fuel has to be pushed forward in order to decrease the dependency from imports. AEBIOM invites all its members to support this transition to a more Renewable based energy system in Europe. A sustainable biomass production, a strong political support for the development of agriculture and biomass production together with a responsible strategy to combine the needs for food and energy will be required to meet these challenges.

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RES directive

AEBIOM Secretary general Jean-Marc Jossart gives an overview of the important political decissions in the European Union starting with an update of the RES directive.

After heated debates on the final agreement between the European Parliament and the Council on 9 December and within the European Council on 11 December, the European Parliament, on 17 December, has adopted by a large majority (685 against 25) the renewables directive. The directive will come into force 20 days after it is published in the EU's official journal. This important piece of legislation provides necessary tools to increase the use of renewables (up to 20% by 2020) within the energy system.

Renewables target: The directive sticks to the binding 20% renewables target (related to gross final energy consumption) and 10% renewables in transport target. The review clause in 2014 will not endanger the 20% target but might only correct the support mechanisms.

The directive establishes indicative intermediate renewables targets for 2012, 2014, 2016 and 2018

National action plans: Member states will have to adopt national action plans with national binding targets for heating and cooling, electricity and transport fuels from renewables. The Commission will have to provide a template for the national action plans by 30 June 2009. Member States will have to comply with this template in the presentation of their national action plans (by end June 2010 at the latest).

Flexibility mechanisms: The European Institutions ensures the flexibility by making the statistical transfers and joint projects possible between member states as well as the possibility to have joint support mechanisms. Hopefully this will not endanger national support schemes but will give member states flexibility.

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In 2009 the European Commission will focus on:

• certification of biofuels and will come up with proposals on how the MS could integrate the certification in the national renewable action plans
• a guide on a carbon stock - how to define the carbon stock in primary forest, via map?
• biodiversity
• definition of degraded land
• definition of biodiverse grassland
• more details regarding the reporting requirements for the member states
• updating the default values of CO2 emitted by various biofuels
• bioenergy sustainability criteria other than biofuels and bioliquids - a report on various options will be produced by the Commission (by 31 December 2009)
• template on national action plans (by 30 June 2009)

In 2010 the European Commission will work on:

• report on indirect land use
• report on the mass balance verification method and on other verification methods to some or all types of raw materials. The Commission will possibly come up with proposals on allowing other verification methods.
• report on the feasibility of drawing up lists of areas in third countries where the typical greenhouse gas emissions from cultivation or agriculture can be lower than emission reported in part D of Annex V of this directive (by 31st of March 2010)
• action plan on how to improve financing and coordination to achieve the 20 % target (structural funds, EIB, better access to capital risk…) by 31 December 2010
• report reviewing the impact of indirect land use change on greenhouse gas emissions and addressing ways to reduce the impact. It might be accompanied by a methodology for calculating emissions from carbon stocks.

27 EU Member States:

• by the end of 2009, MS will have to send forecast document to Commission indicating the Member State's estimations on: excess production of RES compared to the indicative trajectory, potential for joint projects until 2020, demand to be satisfied by means other than domestic production until 2020.
• by the 31st of March 2010, the MS will have to establish a list of areas classified as level 2 in the nomenclature of territorial units for statistics or as a more disaggregated NUTS level where greenhouse gas emissions can be expected to be lower to emissions reported in part D of Annex V of this directive.
• by 30 June 2010, the MS will communicate "appropriate measures" in National Action Plans.

by November 2010, the MS will have to transpose the Directive's provisions into national law and will have to communicate to the Commission how Directive has been transposed into national law.

Nex steps in RES Directive

Biofuels and renewable energy for transport

The directive keeps binding target of 10% renewable energy in transport. However, electricity use in transport will receive some additional support - for the calculation of the renewable electricity consumed by electric road vehicles, this consumption shall be considered to be 2,5 times the energy content of the renewable electricity input.

Furthermore, the contribution made by biofuels produced from wastes, residues, non-food cellulosic material, and ligno-cellulosic material shall be considered to be twice that made by other biofuels.

Sustainability criteria

The sustainability criteria will be applied only to transport biofuels and bioliquids and to both European and imported biofuels. The directive indicates that to count towards the transport fuel target, the use of biofuels must save at least 35% of GHG emissions compared to fossil fuels until 2017 and from 2017 – 50% (or 60% for installations built after 2017). The sustainability criteria of the directive stipulates that the biofuels should not be made from raw material obtained from land with high biodiversity value such as primary forest and other wooded land, wetlands, undrained peatlands, forest land with trees higher than 5 meters, areas designated for nature protection purposes etc. The European Commission, however, will have to come up with a report whether the sustainability is needed for all types of biomass, other than biofuels and bioliquids, by 31 December 2009 at the latest.

The overview by Jean-Marc Jossart will continue on the following page with the Emission Trading Scheme and National Renewable Action Plans

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Emisson trading scheme

Besides the Renewables, another important for biomass sector directive was agreed in December 2008 - the directive on Emissions Trading Scheme.

One of the most important points of the directive is that the overall cap of installations in Europe is secured (the maximum CO_2 emissions level to be emitted is set and translated into allowances). The maximum cap should prevent from the over-allocation.

The EU Cap is at 20% below 1990 levels translating into a 21% reduction for ETS sectors compared to 2005 emissions.

Until now, free allocations system was in place but as of today the auctioning will be used instead. Free allocations means that the large industries under ETS receive free allowances – the rights to emit a certain amount of CO2 for free. From now on industries will have to buy these allowances; therefore, this system represents better the polluter pays principle. Therefore, there will be no more free allocation until 2027 with an exception of some Eastern European countries. Auctioning will happen only at member state level. The member states will use this income the way they want, nevertheless, 50% of it should go to climate-change related solutions such as renewable energy, energy efficiency, carbon capture storage, R&D of clean technologies, reduction of CO2, social/energy poverty etc.

The second very important point for the biomass sector is that the biomass use is counted as 0 emissions within the ETS scheme. This is a strong incentive for biomass use. The directive also stipulates that 300 Mio allowances from the new entrants' reserve (NER) should be allocated for free to up to 12 CCS demonstration plants and to demonstration projects of innovative renewable energies that are not yet commercially viable. Currently the Carbon price is 22 €/ton and thus this means that the amount of more than €6.5 billions will be shared between coal and renewable industry.

AEBIOM together with the European Commission has organised a high level conference "Sustainable Bioenergy Strategies" on 9 February where the biomass part of National Action Plans as well as certification system were discussed

National Renewable Action Plans

The new Directive on renewable energy sources will lead the development of renewables for the coming decade. Mandatory national targets for 2020 are a cornerstone of this document but they are not sufficient to ensure the achievement of these targets. According to AEBIOM, the National Action Plans (NAPs) for renewables are an essential tool to reach the objectives.

The future NAPs will have to be submitted by June 2010 based on a template to be adopted by the Commission in June 2009. The Directive sets minimum requirements for the template (annex VI).

Biomass represented 2/3 of renewables in 2006 and will undoubtedly produce a lion's share of renewables in 2020. But this is one of the most complicated sectors because of the multiple fuel types, conversion possibilities and markets. A solid strategy has to be established by every member state in order to define priorities for the use of limited biomass resources and to ensure the future private investments. The risk is that the NAPs might become a summary of already existing measures. Therefore, some key questions should be addressed such as:

- How to properly assess the biomass resources and their costs?

- How to guarantee the sustainability of biomass without setting extra market burdens?

- How to define targets/priorities for heat, electricity, cogeneration and transport fuels?

- How to define appropriate and cost-effective support schemes?

- How to involve various stakeholders in the process including the biomass users in non energy production industries such as particle board industries, pulp and paper industries etc?

- How to ensure social acceptability of the NAPs?

- How to evaluate the impacts of the NAP?

AEBIOM together with the European Commission has organised a high level conference " Sustainable Bioenergy Strategies" on 9 February where the biomass part of National Action Plans as well as certification system were discussed. The Deputy Head of the EU Commission's unit Mr Paul Hudson presented the requirements of the directive for national action plans, sustainability criteria and informed that the Commission's RES Progress Report and Staff Working Paper including information on the implementation of the BAPs will be published shortly. Other speakers focused on specific measures how to increase the biomass use for heat, tackle administrative barriers, how

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to ensure an appropriate sustainability criteria etc. The presentations of the conference are available on www.aebiom.org

The project BAP driver, funded by the Intelligent Energy for Europe programme, is a group of 10 energy agencies and institutions from 8 EU Member states. Through 8 national roundtables and 4 European thematic working group the project helps to formulate consistent national biomass strategies and action plans. It is coordinated by German Energy Agency (DENA).

One key report is already available - **European Best Practice Report** that compares and benchmarks the state of the biomass action plans in 12 countries. The project showcase advanced countries for 15 different criteria. There is certainly a room for experience sharing.

How to get further involved:

- Visit the project web site: www.bapdriver.org
- Read the Best Practice Report, can be downloaded online, printed version available).
- Be involved in the expert meetings (next one on 7 October 2009, Brussels)
- Contact the project partners

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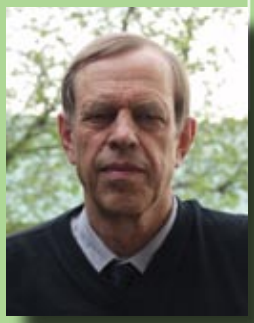
Open issues after RES directive



Sven Hogfors, Swedish Wood–fuel Association

The renewables directive (RES directive) and the climate package have been adopted; however, some related issues still remain open:

The price of emission rights will be relatively low during the next few years due to a rather generous allocation of free rights to industry and power plants. If the targets for renewable energy are to be fulfilled it will be necessary to use other types of economic incentives and legislation at national level. Already now – long time before the submission of the national action plans to the Commission – one can see different patterns in different countries: Germany ("Erneubare energien gesetz") and Finland will go for "Feed in tariffs", GB ("Climate Change Act") and Denmark will go for direct obligations set in their legislation and Sweden will probably stick to CO2-tax and Green Certificates for renewable electricity. Much attention has to be paid to these different schemes in order to avoid complications with the free trade of CO2.

In many MS the local market of fire-wood from forestry to private households are dominating today's national turnover of biomass for energy. These flows often have a very positive impact on climate because of short transportation and low need for refinery inputs. This type of bioenergy will grow and help to fulfil national targets. The national implementation of the RES Directive regulation system ought to facilitate this.

But what about renewable energy that does not fit in the RES regulation system? If the prices of fossil fuel go high again such renewable energy "outside the RES incentives and demands" might be competitive and should not be restrained in national legislation.

Nearly all the RES sustainability criteria are related to the way the land is used before and after January 2008. The verification schemes, therefore, must be designed so that they can be used in practice by all forestry actors and farmers inside and outside the EU. This is quite a challenge!

We will need all biomass that can be produced in Europe. A lot of agricultural land has been more or less abandoned during the last fifty years because of overproduction and low profitability in agriculture. This land, when not arable, should be used for efficient production of biomass to energy. The sustainability criteria on highly biodiverse grassland should not hinder a rational cultivation of such land as an alternative to letting such land grow into weeds, bushes and low value forest. Where highly biodiversity grasslands are to be maintained they need to be marked, protected and supplied with a maintenance program.

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The project BAP driver, funded by the Intelligent Energy for Europe programme, is a group of 10 energy agencies and institutions from 8 EU Member states.

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Biomass in the United Kingdom

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The UK is at last starting to develop policies to improve its renewable energy deployment from our historical position at the bottom of the European league table. Our national renewable energy target of 15% by 2020 may sound modest to most, but this represents a ten-fold increase from the 1.5% achieved in 2005 so will be the highest growth in the EU.

The Renewable Energy Association represents UK biomass producers as part of our portfolio covering all sources of renewable energy, and is delighted to have recently joined AEBIOM. We have been actively engaged with the UK government on developing a Renewable Energy Strategy to meet the new targets, and have been particularly successful in broadening the scope of these policies. Historically the government had focussed almost exclusively on bulk electricity generation through the lowest cost options – mainly hydro, wind, landfill gas and co-firing.

The latest draft of the Renewable Energy Strategy takes, for the first time, a much broader approach including renewable heat and CHP, biofuels, energy in buildings and biogas production. This more comprehensive approach should favour biomass which, apart from co-firing, has shown very little progress in the UK since the Non-Fossil Fuel Obligation was replaced by the Renewables Obligation on 2002.

The full range of new policies is still being decided, but one measure that the REA has campaigned for has already been accepted. The Energy Act was amended just weeks before it was passed in November 2008 to include renewable energy tariffs for electricity, heat and biogas. The electricity tariffs should be similar to the feed-in tariffs adopted elsewhere in Europe, but based on the electricity generated (irrespective of whether it is then fed into the grid). We hope the renewable heat and biogas tariffs will be similar.

These tariffs are designed to operate at domestic and community scale so should provide a very good stimulus for biomass in the UK. They are scheduled to take effect from April 2010.

There are several other positive drivers to the development of biomass energy in the UK. For example the government has announced that all new residential buildings must be zero carbon from 2016 and non residential buildings from 2019. Some developments are already being developed to zero carbon standards, for example under the Carbon Challenge from English Partnerships. Biomass CHP is proving to be an attractive option for such developments as it is a renewable way of supplying both the required heat and electricity in a single installation.

In general the UK is at last looking to match renewable energy deployment elsewhere and we in the REA are always keen to learn from biomass best practice elsewhere in Europe.

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Biomass sector in Spain - state of the art

According to the Spanish Renewable Energy Plan 2005-2010 (PER) at least 12% of the total energy consumption in Spain should come from renewable sources by 2010. The national plan sets two other indicative targets for 2010: 29.4% of renewable electricity and 5.75% of biofuels.

The Plan sets specific targets for all renewable technologies. Bioenergy (heat, power and biofuels) has the biggest potential to achieve Spanish renewable goals. According to the aforementioned plan bioenergy has to provide 60% of the overall (12%) renewable target where electric and thermal biomass should contribute 50% and biofuels 10%.

The spanish biomass sector nowadays

The Royal Decree 661/2007 published on 25 May 2007 regulates the production of energy and for the first time covers renewable energy which is supposed to be an improvement of the legislative framework for biomass. It seemed to be an incentive to boost the development of biomass projects. However, one and a half year later the real situation of the sector is:

Biomass power

Biomass for power generation is still far away from achieving its objective. According to the Spanish National Energy Commission, there are currently 391 MW of biomass installed power (November 2008) and in 2010, as the PER sets, there should be 1317 MW of biomass installed power in Spain.

There has been a significant increase in plants' components cost which results in higher investment cost. Moreover, the sector is still waiting for the establishment of a mandatory certification system for all types of biomass. This system

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Lithuania is ready the renewables

In December 2008 Lithuanian biomass association LITBIOMA with the help of 10 most eminent Lithuanian scientists in bioenergy field has published a scientific research which establishes the basis for Lithuanian renewable action plan from 2010 to 2020.

After having won a competition carried out by the Ministry of Economy of Lithuania, LITBIOMA made a comprehensive study that evaluates the possibilities to use different renewable energy sources in Lithuania including biomass, biogas, biofuels for transport, geothermal, hydro energy as well as solar and wind energy.

According to the EU RES directive Lithuania has to reach 23% renewables by 2020. Currently Lithuanian overall share of energy from renewable sources in gross final consumption of energy is 15 %.

"Our research shows that Lithuania has enough renewable energy sources not only to meet the RES Directive requirements set for Lithuania but also to exceed them. LITBIOMA is ready to make all possible efforts to reach this goal", says Remigijus Lapinskas, the president of LITBIOMA.

The research has shown that the biggest energy potential in Lithuania lies in biomass mainly for the production of heat and cogeneration. An ambitious goal has been set for 2020 to produce up to 70 % of central heating using biomass. Currently, this figure is only 17 %.

Amongst the proposed measures to develop the RES use in Lithuania, LITBIOMA recommended to the government to increase the areas of the forests and their productivity, support the development of infrastructure of forest cutting residues, their transportation and storage, also, to start using municipal waste for production of energy.

As the research revealed, it is essential for the government to support the measures that could reduce the costs of production of biomass from forest residues. LITBIOMA also suggests promoting the use of still rarely used biomass resources such as straw and energetic plants, e.g., willows.

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is being developed by the Government and will cover the traceability of biomass from its production to its use. We expect to have an affordable and practical sustainability scheme.

Biogas

Biogas, however, is close to achieve its PER "partial" objective. This target is set at 250 MW installed in 2010, and there are already 194 MW installed which means 78% of this goal.

The RD 661/2007 stipulates that once 85% of the specific technology target is reached, a maximum period will be fixed for new projects to continue receiving the feed-in tariffs. Biogas producers' uncertainty is growing as the biogas goal is close to be reached and it is not known what is going to happen once the 85% is reached.

Small-scale biomass plants (≤ 2MW)

Small-scale biomass plants with gasification technology have been historically facing a series of barriers and together with the inability to make these plants profitable, this technology is still far from having a commercial impact.

RD 661/2007 has introduced a special feed-in tariff for power generation in small-scale plants not exceeding 2 MW of installed power. But up till now there are only demonstration projects and not the commercial plants.

Therefore, there are still barriers for biomass use that needs to be tackled such as certain distrust for gasification in the market, still too high investment costs and the difficulty to find the biomass suitable for gasifiers.

Organic fraction of municipal solid waste (OFMSW)

Despite the fact that organic fraction of municipal solid waste (OFMSW) is biomass the RD 661/2007 does not classify OFMSW within any of the established biomass fuel groups and thus does not receive any feed-in tariff support. This type of biomass could significantly contribute in achieving the Spanish energy goals as 16 Mt of OFMSW are produced annually in Spain which corresponds to 1920 ktoe/year energy potential equivalent to 1.31% of our primary energy consumption.

A Spanish Biomass Technology Platform (BIOPLAT) was set up to gather Spanish stakeholders. So far 200 entities have joined (for more information: www.bioplat.org).

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Bioenergy use in Bulgaria

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Bulgaria, so far, was mainly focused on export of biomass resources; however, due to the recent gas cuts from Russia (80% of gas is imported from Russia) and thus the lack of secure energy supply, there is a need to ensure Bulgaria's own energy supply. The alternative local fuels and technologies, however, are only under development.

Wood biomass

During the past years the wood logs consumption has increased dramatically. About 40-45% of the Bulgarian population is heated with wood logs. The biomass in the form of wood logs reached 7.4% within the total final energy consumption in Bulgaria in 2003.

During the past years the wood and waste biomass is mainly used for the production of briquettes, pellets and wood chips. The production of briquettes started in 1998 and today about 15 plants are producing up to 20,000 tons of briquettes annually. The production of pellets has started in 2000 and due to good business perspectives approximately 25 pellets production plants are up and running today with an average annual capacity from 500 to 15,000 tons. This year 5 new pellets plants with capacity 1–1,5 t/h have started the production of wood pellets.

In the past 4-5 yeas the interest in other uses of wood has increased. The main reason for that is the production of biofuels, local manufacturing of chippers and effective mobile and stationary wood chippers. The production of wood chips using wood waste biomass for heating has significantly increased. The wood chips production is made in the regions with logistic radius up to 50-60 km.

Agricultural biomass

There is a big potential of agricultural biomass to be used for energy purposes especially straw. Unfortunately, due to the financial reasons, the straw utilization is negligible. The only plant producing straw briquettes and pellets is situated in the town of Mizia. GTI Company Sofia plans to start–up the straw pellets line with a capacity of 3- 4 t/h.

Further steps

Beside these positive developments in bioenergy sector, further activities are planned to increase the use of biomass: studies estimating quantities and qualities of biomass waste for production of briquettes, pellets and wood chips; studies on suitable technologies, machines and facilities; R&D activities; implementation of European quality standards; preparation of an action plan to increase pellets and wood chips production as well as to develop the biofuels market.

Based on EUBA research, we can estimate that there is a realistic potential to increase the bioenergy share to 12% of the total final energy consumption in Bulgaria until 2015.

Bulgarian pellets plant

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CZ Biom - Biomass action plan 2009 – 2011

Czech Biomass Association (CZ Biom) under request of the Ministry of Agriculture has prepared the Biomass action plan for 2009 – 2011. The document was accepted by the Ministry of agriculture and approved by the Government in the end of 2008.

Czech Biomass Action Plan provides an analysis of the biomass market in Czech Republic, estimation of biomass potential and use, analysis of the environmental effects and detailed classification of renewable energy sources (RES) - types, yields, and experience. Furthermore, it proposes measures and solutions how to increase/improve biomass use in the Czech Republic.

The aim of this document is to fulfill the obligations of the Czech Republic within energy production from RES for the year 2010 and 2020 following the EU legislation and State energy concept.

The most important questions in this document are:

• What strategy should be set for biomass utilization in the Czech Republic?

• What position will be supported by the Czech Republic during the new common agricultural policy formation?

• How should the development of bioenergy be done within the supporting programme of Ministry of agriculture?

The share of RES in the Czech Republic was 4,7 % in 2007 (biomass is the second most significant RES), the aim is to reach 8 % in 2010. The Czech energy concept and state policy does not provide any suitable strategy plan for biomass use and does not contribute to reach the obligation made by EU so far. Sustainable utilization of biomass grows slowly which is obvious when we look at insignificant biomass and biogas use for direct burning even though this source has a big potential and can be easily exploited. The unified position towards future biomass utilization in the Czech Republic is needed together with the coordination of different strategies and plans in individual sectors. Biomass action plan tries to fill the gap of missing and suitable strategies.

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Biomass Action Plan in Franche-Comté

The local development and the wood energy action plan in Franche-Comté forms an integral part of the new project agreement between the State and the Region for 2007-2013. Main actions of this plan are:

- organize a supply chain (inventory of potential storage platform in the region).

- carry out studies in order to identify the most appropriate management for supplying platforms.

- launch the program: "1000 boiler rooms in rural environment" until 2012.

- make local supply chains plans.

The granting of the subsidies was redefined as follows: those that relate to the wood boilers are granted by the Departments, the Region and the Agency for Environment and Energy Management (ADEME) and those that relate to the supply chain are being granted by the Region and ADEME.

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Biomass Sector

Aebiom workshop on biogas

AEBIOM has prepared a set of policy recommendations for the development of biogas sector during AEBIOM workshop on 11 December in the European Parliament. Biogas has been underestimated in the past, however, it has a big potential due to its ability to use a wide range of input including waste products for heat, electricity or renewable energy for transport production. According to biogas expert Jens Bo Holms-Nielsen, 1/3 of bioenergy share can come from biogas by 2020. According to his forecast the biogas use can increase from actual 7 Mtoe to 60 Mtoe in 2020. The biggest part of the input would come from manure, food waste, organic by-products and agricultural crops. Several most important policy recommendations that received the most support of the biogas experts:

- Regulate/ensure an easy access to the electricity and gas grids (priority for biogas, guarantee, non discrimination, free access).
- Make biogas for transport competitive as compared to natural gas (CO_2 tax and lower excise duties).
- EU should urge MS to ensure the long lasting investment security in nRAP. The regulation should guarantee the long term price.
- Review specific directives such as waste framework directive, water framework directive and nitrates directive in order to take the specific needs of biogas sector into account.
- Fully consider biogas in the European Biofuels Technology Platform (EBTP).
- Accept digestate as a replacement of artificial fertilizer to meet crop needs.
- Introduce incentives for eco-cars (e.g. tax advantages, lower parking fees, allow circulation during high immission period).
- Finalise the biowaste regulations in order to reduce the barriers for biogas use
- Eliminate the barriers to get permissions for building biogas plants.
- Support R&D for energy crops, biogas technology, fermentation biology, efficiency of energy use.
- Allow higher financial support for small scale farm plants using manure.

The presentations of the workshop as well as all recommendations can be found on AEBIOM website www.aebiom.org

Biomass Sector

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European forest producers organisations commitments to increase wood mobilisation

Biomass and especially forest biomass will play a fundamental role in the European renewable energy policy. In Europe a significant amount of forest resources is available but still underestimated. As a renewable energy source and eco material this forest resource must be better mobilized and exploited to achieve EU policy objectives.

For this purpose, an Action Plan has been published by the European Commission. The implementation of it will depend on our wood (biomass) mobilization and supply capacity for material as well as for energy sector.

A European Forest Cooperatives Working Group, set up 2 years ago, is working on a common strategy to tackle forestry related problems. This group has published the Declaration on wood mobilisation in Europe. The declaration was announced during the first European Forest Cooperatives Seminar where the European Forest Cooperatives managers have made commitments to meet the future needs for wood-based industry sector and the wood-based energy sector:

- to promote the sustainable forest management and biodiversity
- to work for all European forest producers
- to increase wood supply chain efficiency
- to promote and develop forest investments

Within this scope, the seminar was organised on 26 September 2008 in Compiegne by the French Forest Cooperatives Federation (U.C.F.F.) that is an active member of "France Biomasse Energie". "France Biomasse Energie" gathers together forestry professionals from biomass producers such as UCFF, ONF, Coop de France etc. to the main energy industries such as Poweo, Vinci Environnement, Gaz de France etc. This Group is an opportunity for these actors to work closely on common objectives and to share know-how.

As the civil society and industrials become increasingly aware of the problems related to climate change and energy dependency, actions are launched to achieve the commitments made by France during the "Grenelle de l'Environnement". Members of "FRANCE BIOMASSE ENERGIE" association are working to make these actions concrete by trying to increase biomass resource mobilisation, and ensure a better environment for investors in biomass sector. The European forest producers' organisation declaration is thus an important step in making European and national biomass action plan more liable.

It is essential that Biomass organizations work closely at a national and European levels in order to reach the European policy goals.

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EUROPEAN BIOMASS ASSOCIATION
Renewable Energy House

Biomass Sector

Pellets production is growing rapidly in Europe Pellets will significantly contribute to the renewable contribution by 2020

Pellets Roadmap for Europe

Significant pellet market penetration in Europe is currently focussed on a small number of member states including Sweden, Denmark, the Netherlands, Belgium, Germany, Austria and Italy. In other EU member states markets are still in an early stage of development but with signs of dynamic growth. Experience in existing markets show that pellet use can grow extremely fast if the proper framework conditions exist. In Italy for example the market of pellet stoves grew within 10 years from virtually zero to over 250.000 stoves sold per year. In Austria the market share of pellet heating systems grew within 10 years to over 12 % of all new sold boilers for residential heating.

Three different types of pellet markets have developed in Europe. Pellets that are mainly used in power plants – this is the case in Belgium and the Netherlands pellet market. The U.K. could become another large power plant market for pellets. A second group of markets combines large scale and small and medium scale use – this is the case in Sweden and Denmark. In the third type of market pellets are predominately used for heating in residential or commercial buildings. Within this last sector stove markets can be distinguished from markets where pellets are also used in boilers or commercial applications. Typical stove markets are Italy or the U.S.A. In these markets pellets are only distributed in bags.

In Austria and Germany pellets are predominately used in residential and commercial boilers for heating. In these countries bulk delivery is the rule.

Up to now the raw material for pellets production was mainly sawdust and wood shavings of big saw mills and wood processing companies. However, this resource in some countries is almost fully used and, therefore, there is a need for other types of feedstock. Raw material such as wood residues, wood from forest thinnings and short rotation coppice, agricultural residues can be used to produce pellets. This wide range of feedstocks allows that up to 2020 a target for pellets production of 60 to 80 million tons seems achievable. At the moment (2008) more than 440 pellet plants in Europe produce about 7,5 million tons of pellets per year and ensure a reliable supply . The number of plants is increasing continually due to the dynamic market development.

Biomass Sector

EUROPEAN BIOMASS ASSOCIATION
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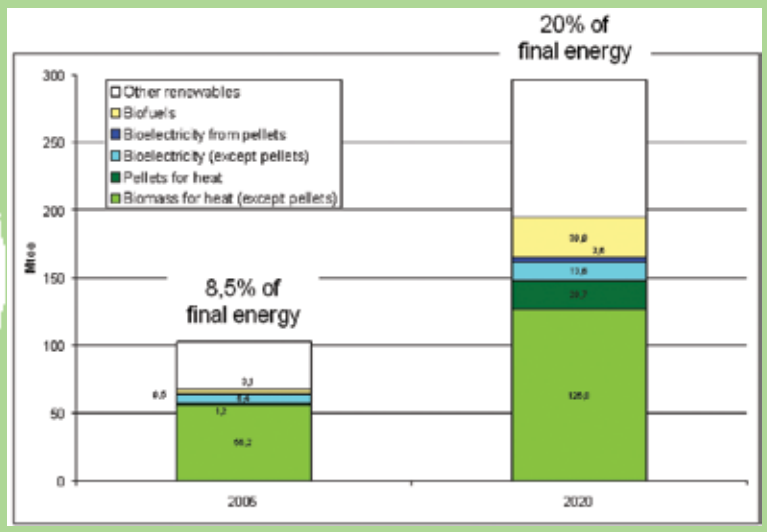

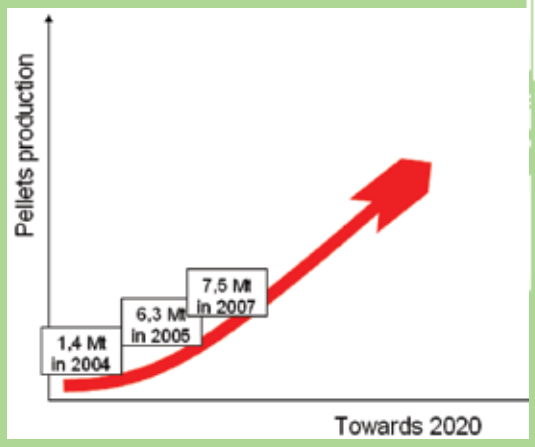

FUTURE DEVELOPMENT

The European Directive on Renewables sets the target of a 20% share of renewable energy by 2020. In 2005 bioenergy contributed to 66% of all renewables and it will still contribute very significantly in 2020. Biomass for heat and derived heat from biomass (heat from district heating and cogeneration plants) is by far the main renewable energy source in Europe with 57,5 Mtoe in 2005.

To reach the 2020 target AEBIOM estimates that 147,5 Mtoe biomass should be used in the heat sector (including derived heat). Pellets are still playing a minor role but taking into account the experience of a few leading countries and provided a biomass heat policy is implemented, pellets use is growing much faster than traditional technologies.

Therefore, it can be estimated that the use of pellets for heating purposes in the residential, services and industrial sectors might reach 50 Mt in 2020, corresponding to 22 Mtoe. Demand will also increase for power production and the future development in this sector depends on political decisions. It might reach additional 20 to 30 Mt pellets or more if current polices stay in place, which corresponds to 10 Mtoe biomass and about 1/3 bioelectricity if converted in a coal fired power plant.

It should be noted that targets are nowadays calculated as percentages of the final energy consumption, which favours very much heat and cogeneration compared to sole electricity production.

AEBIOM, with help of proPellets Austria
info@aebiom.org

AEBIOM has published a pellets roadmap where the information about the pellets use in Europe, pellets potential to contribute towards 2020 RES target, the barriers to its use and possible solutions are provided. The pellets roadmap can be downloaded on AEBIOM website: www.aebiom.org

ENCROP

Int. Conference on ENERGY CROPS
Creating Markets for Heat and Electricity
Pulawy, Poland, September 21/22, 2009

A part of European ENCROP project, this conference aims to promote the production of energy crops in Europe. The two days conference will focus on policy issues, agronomic aspects of energy crops with a stronger emphasis on different possibilities to use these crops for bioenergy as well as practical issues such as contracting, logistics, etc. A study tour to the Kozienice power plant (co-firing of coal and energy crops) and an energy crop trial site will take place on the second day.

Visit www.encrop.net for more details.

AEBIOM
EUROPEAN BIOMASS ASSOCIATION
Renewable Energy House

Projects

Hungarian Small Enterprises for Biotechnology and Biohydrogen (R)evolution

Envihorizont Ltd, a new member of AEBIOM and a member of Hungarian Union of Biomass Product Line, is carrying out a research on biotechnological processes and the use of different types of biomass for energy purposes.

The company has developed an integrated system for microalgae production and use. Algae plant uses large quantities of CO2 for its growing process and is cultivated in closed photobioreactors and open photosyntetical reactors. The main component of growth substrate is thermal water (Hungary is very rich in thermal sources). The algae is used for nutrition, biosynthesis, algoil (biofuel) purposes and the process waste will be delivered to biogas plants. The H2 directly produced by Hydralg type photobioreactors is converted to electricity or is used to upgrade biogas. The renewable biogas energy is converted efficiently by a gas engine to electricity and heat.

Based on our experiences we would like to extend the R&D in the following ways:

- develop and produce the family of high performance photobioreactors
- cost effective prebreeding algae cultivation methods
- special enzymatic membrane reactor
- design, authorize and operate optimal the integrated microalgal factories
- elaborated the sustainability conditions for microalgal bioenergy production.

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EUBIONET 3

EUBIONET III project – Solutions for biomass fuel market barriers and raw material availability

The EUBIONET III (the continuation of EUBIONET II) project supported by the Intelligent Energy for Europe programme aims to increase the use of biomass fuels in the EU by finding ways to overcome existing market barriers. It is coordinated by VTT in Finland. The EUBIONET II project showed that only 50% of solid biofuels are exploited today. Even though the potential is huge, it is not easy to exploit it due to the technical, legislative, information (lack of it), trade and administrative barriers for biomass use.

National biomass programmes and biomass fuel potentials are analysed especially for different industrial residues and agrobiomass. International trade of biomass fuels is promoted to help demand and supply meet each other, whilst trying to secure the availability of industrial raw material at reasonable price. Price mechanisms will be analysed and new CN codes for biomass fuels will be proposed. Certification and sustainability criteria for biomass fuels will be discussed in co-operation with market actors. Implementing of CEN standards for solid biofuels will be enhanced. Bioenergy use will be promoted by raising awareness on biomass heating aiming at fuel switch to biomass.

Expected results of the project

- proposals on how to overcome biomass fuel trade barriers identified in the previous action EUBIONET II, in particular for international trade, price follow-up and price mechanisms,
- the most practical sustainability criteria and certification schemes for biomass fuels,
- analysis of biomass heating and cooling in order to promote the fuel switch from fossil fuels to biomass,
- identification of unexploited biomass fuels from industry and agriculture and suggestions for improving the quality of these fuels,
- proposals of wood biomass use taking into account the availability and price of industrial raw material and its mobilisation,
- enhancing biomass use via co-operation and information dissemination among different market actors.

AEBIOM, info@aebiom.org

www.eubionet.net

Projects

Developing biomass cofiring in China

Project CHEUBIO was a specific support action within the European Commission's Sixth Framework Programme. This two year duration project ended on November 2008. The overall objective was to determine and establish the basis by which the EU industrial companies might enter the co-firing power generation market in China, which offers very significant potential.

The key project deliverables (on biomass potential in China, possibilities for EU companies to introduce their technology in China, Chinese legislative framework etc) are made available on the AEBIOM website www.aebiom.org/CHEUBIO. There are still possibilities to engage with Chinese stakeholders via project partners.

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Bioenergy in Motion – a movie

In order to promote the deployment of biomass heating and cooling technologies, a movie was made available in June 2008 showcasing successful applications in individual households, large buildings, district heating systems and industries. This movie is now available in two separate DVD versions: both are in the following languages: EN/CZ/EE/BG audio; on top of that one will have EN/FR/DE/ES subtitles, and the other EN/LT/LV/RU/PL/HU/SK/SLO/HR/RO/EL/PT/IT subtitles. This movie addresses practical potential and possibilities, investment opportunities, and the policy context of biomass heating and cooling. Three country-tailored versions of the movie are made, covering Bulgaria, Estonia and the Czech Republic respectively.

The project was co-ordinated by BTG (The Netherlands) and financed under the Sixth Framework Programme.

AEBIOM, info@aebiom.org

www.bioenergy-in-motion.com

Creating markets for RES

RESTMAC project has come to an end. AEBIOM was one of 11 partners for the RESTMAC project, which was coordinated by EREC (European Renewable Energy Council). The project aimed at developing and implementing a concise, well targeted and thematic approach to ensure the dissemination and uptake of selected RES technologies by the market.

Deliverables available:

- AEBIOM brochures on pellets, energy crops and forest residues
- list of stakeholders (under request)
- roadmap of the biomass technologies

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www.erec.org

European platform for small scale biomass heating

The platform is an alliance of the following European associations:

AEBIOM

EFA, ECA, ESCHFOE

The primary goal of the platform is to further optimise the products and services they offer in order to:

- Increase energy efficiency
- Lower emissions
- Ensure safety

The platform aims at contributing to the development of relevant key policies of the EU, as well as supporting Member States in developing their national Renewable Action Plans, as required by the Renewable Energy Directive. This includes coordinating the activities targeted at EU-institutions.

Thomas Muehl

European Platform for Small Scale Biomass Heating

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World Bioenergy Association

World Bioenergy Association (WBA) was founded and had its first board meeting on 28 May at the World Bioenergy 2008 Conference in Sweden. On the same day WBA had a "birthday party" at the fair.

The birthday celebration was a great success with almost 300 participants. 13 organisations applied for affiliation and around 40 asked for more information about WBA. With the president Kent Nystrom upfront the World bioenergy Association includes the members from the following countries: India, Canada, Belgium/Europe, USA, Japan, Kenya, Zambia, Australia and China.

During the first year WBA is going to publish its magazines, make a plan for developing a global certification system, develop a web site, create platforms for: business "match-making"; researchers to meet to exchanging results etc.

Kent Nyström

Interim President, WBA

www.worldbioenergy.org

EUROPEAN BIOMASS ASSOCIATION
Renewable Energy House

Associate Members

KELAG Wärme Info-Box and Contact:
1.600 GWh heat sales volume
80 district heating systems 45 of them based on bio mass
1.000 Energy Service plants
230 employees

Ökofen

Starting from 1 January 2009, Austrian company Ökofen is expanding to Belgium and Netherlands with their pellet boilers and solar panels.

It was the first company to introduce their entirely automatic pellet stoves and remains one of the most eminent producers in Europe. They have companies in Germany, France, Switzerland, and now also in Belgium.

The company provides a big choice of pellet boilers and storage systems for heating purposes. The power ranges from 8 to 56 kW and the storage systems from 450 kg to 14 tons of pellets.

Eline Lewyllie info@okofen.be www.okofen.be

KELAG Wärme Company

The KELAG Wärme Company is the largest Austrian wide heat energy provider which produces heat based on renewable energies and industrial waste heat and are a subsidiary of Kelag - the Carinthian energy utility.

Our customers are offered customised solutions corrersponding to their energy needs using our district heating network and Energy Service plants. The demand currently exceeds 1600 million kilowatt hours annually.

KELAG Wärme is responsible for around 80 district heating networks, located in population centres throughout Austria. More than 45 district heating plants use bio mass as their primary source. These networks provide heating for households, businesses and industry, as well as for public spaces.

The company uses renewable energies such as wood chips, bark, pellets, landfill- and biogas as well as industrial waste heat whenever it is possible – in the interest of our customers and our environment.

Safety and reliability, high efficiency and economy as well as environmental protectionand low financial risks are the main advantages for our costumers. We offer “Heat-Tailormade”.

Our business networks are expanding constantly, not only within Austria, but also into our neighbouring countries and South-Eastern Europe. Associate companies are working within the markets of Germany, The Czech Republic, Slovenia Italy,Bulgaria, Romania and Croatia.

With the help of its business network KELAG Wärme is aiming to become a european-wide supplier of green energy.

KELAG Wärme GmbH
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www.kelagwaerme.at

Hargassner wood chip and pellet boilers

HARGASSNER was founded in 1984 in Weng (Austria) by Anton Hargassner. As a pioneer in wood chip and pellet heating, Mr. Hargassner built up a reputation in terms of quality and customer satisfaction. Hargassner has been developing, producing and marketing wood chip heating systems for two decades, while its experience with pellet systems goes back to about 10 years. The company offers several types of eco-friendly heating systems including pellet, wood chips, industrial and multifunctional boilers (using various energy crops, wood chips and wood pellets) ranging from 9 to 200 kW power.

Hargassner’s production capacity is about 6,000 – 8,000 wood chip boilers and pellet boilers per annum. To date, it has supplied more than 34,000 heating systems to its clients. In the meantime, the company employs more than 120 qualified staff and is still growing!

Hargassner’s products have received numerous awards and certifications. The deciding factors for the large international awards received by Hargassner include many technological achievements concerning the combustion of wood chips and wood pellets.

Exports are handled by branch offices and agencies in Germany, France, Switzerland, Italy, Belgium, the Netherlands and Spain. Exports account for over 60% of the turnover and continue to increase steadily. Hargassner is currently seeking additional international sales partners in order to increase the export ratio even further.

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www.hargassner.com

Associate Members

EUROPEAN BIOMASS ASSOCIATION
Renewable Energy House

Join AEBIOM as an associate member

AEBIOM seeks to raise the profile of bioenergy companies at European level and to better represent the bioenergy sector within the EU institutions. AEBIOM has already organised four workshops in the European Parliament where associate members working in the biomass field debated on the necessary actions at EU level in order to better promote the use of biomass.

All workshops produced a list of recommendations setting out further actions. The most recent workshop on biogas will result in a "Biogas Roadmap in Europe" to be published on AEBIOM website www.aebiom.org

Besides the workshops, AEBIOM provides companies an opportunity to network, receive the latest information on EU legislation, calls for proposals, events, etc and actively participate in the lobbying process at EU level.

For more information, please contact rechberger@aebiom.com

4Energy Invest - www.4energyinvest.com
AB Borlänge Energi - www.borlange-energi.se
AE&E Austrian GmbH & Co KG - www.aee-austria.at
AFPI - www.turveteollisuusliitto.fi
AGRANA Beteiligungs GmbH - www.agrana.com
Biomaxx Technology GmbH - www.biomaxx.eu
Biopower International - www.biopower.nl
Biowanze - www.wanze.be
CEPI - www.cepi.org
CHOREN Industries GmbH - www.choren.com
Consulting with a purpose - www.cwp-ltd.com
Danish Biofuel Holding - www.danishbiofuel.dk
De Smet Engineers & Contractors - www.dsengineers.com
EC Bioenergie Gmbh - www.bioenergie-heidelberg.de
Econova Energi AB - www.econovabiotech.se
EDORA - www.edora.be
Electrabel - www.laborelec.com
Ena Energi AB - www.enae.se
Energiecomfort - www.energiecomfort.at
Energies Alternatives SPRLU - www.girretzpierre.be
Envihorizont Ltd. - www.envihorizont.hu
ETA Heiztechnik GmbH - www.eta.co.at
Fachverband der Holzindustrie Österreichs - www.holzidustrie.at
Ferry Group - www.ferrygroup.com
Fröling Heizkessel- und Behälterbau Ges.m.b.H - www.froeling.com
GEE Energy GmbH & Co. KG - www.gee-energy.com
Genol Gesellschaft m.b.H. & Co - www.genol.at
Global Natural Resources Holding AG - www.gnr-holding.com
Göteborg Energi AB - www.goteborgenergi.se
GreenStream Network GmbH - www.greenstream.net
Hadfield Wood Recyclers & Son Ltd - www.hadfield.co.uk
Hargasser GmbH Hackgut -Pelletsheizung - www.hargassner.at
Harjedalens Miljobransle AB - www.hmab.se
Hawkins Wright Ltd. - www.hawkinswright.com
Hungarian Bioenergy Competence Centre HBCC - HU
Itradec - www.itradec.be
Jenz GmbH - www.jenz.de
KELAG Wärme GmbH - www.kelagwaerme.at
KÖB Holzfeuerungen GmbH - www.koeb-holzfeuerungen.com
KWB- Kraft und Wärme aus Biomasse GmbH - www.kwb.at
Lantmännen Energi - www.lantmannenenergi.com
Latgran Ltd. - www.latgran.com
Lindner & Sommerauer Heizanlagenbau SL - www.sl-heizung.at
MAWERA GmbH - www.mawera.com
ÖkoFEN GmbH - www.pelletsheizung.a
Österreichischer Kachelofenverband - www.kachelofenverband.at
Palazzetti - www.palazzetti.it
Paul Rudolf AG - www.rudolf-ag.at
pro2 Anlagentechnik GmbH - www.pro-2.de
proPellets Austria - www.propellets.at
Raiffeisen Leasing Gmbh - www.raiffeisen-leasing.at
REECO GmbH - www.energie-server.de
RENERGIE GmbH - www.renergie.at
Schiedel AG - www.schiedel.at
SEEG Mureck - www.seeg.at
Seeger AG - www.seeger.ag
Söderenergi AB - www.soderenergi.se
Sveaskog AB - www.sveaskog.se
Svenska Biogasföreningen - www.sbgf.info
Svenska Torvproducentföreningen - www.torvproducenterna.se
Swedish Association of Pellet Producers - www.pelletsindustrin.org
Swedish Wood-fuel - www.tradbransle.se
UAB Region komunaliniu atlieku deginimo gamykla - www.atliekudeginimas.lt
URBAS Maschinenfabrik GmbH - www.urbas.at
Vapo Ltd - www.vapo.fi
Vattenfall AB Värme Norden - www.vattenfall.com
VICTAM International - www.victam.com
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