

With ambitious EU legislation, wind energy can provide huge benefits to Europe

"Wind has delivered the most promising results out of all renewable energy technologies so far, with 57 GW of total capacity installed in the EU by the end of 2007. In order to ensure that this trend continues, we need to have a secure and favourable EU legislative framework", EU Energy Commissioner Andris Piebalgs told delegates at the opening session of the European Wind Energy Conference (EWEC) today in Brussels. The EU Commissioner - Chairman of the EWEC 2008 Conference also emphasised the need to consider renewable energy solutions beyond 2020 and far into the future.

A swift adoption and implementation of the European Commission's proposed Renewable Energy Directive is essential to ensure a secure, sustainable and competitive energy future in Europe, delegates heard this morning. Decision-makers at national and European level stressed the importance of a stable, flexible legislative framework. They outlined their vision for the EU legislation and how this will deliver a new generation of energy supply.

The European Commission's proposed Renewable Energy Directive has generally been well received by the wind energy sector, although some improvements could be introduced by the European Parliament and Member States. Furthermore, it still remains to be established beyond any doubt that Member States are legally entitled to remain in control of their national mechanisms. Speakers at the opening session of EWEC retained the overall positive note as they presented their views on how such legislation can help achieve the EU's binding target of 20% renewables in the energy mix by 2020.

Andris Piebalgs, EU Commissioner for Energy, opened the event as chairman of the conference by highlighting the European Council's wish for a rapid agreement on the proposed Renewable Energy Directive during the French Presidency in the second half of 2008.

Britta Thomsen, Member of the European Parliament, stressed that there are certain important elements the European Parliament would like to see included in the proposed Renewable Energy Directive.

"Clearer guidelines are needed for the national action plans, and a list of elements to be included. The European Commission also needs to be able to monitor the action plans, and have enforcement mechanisms so it can react if Member States are not meeting their goals." Ms Thomsen also emphasised the importance of efficient support schemes at national level, and asked for sectoral targets for electricity, heating and cooling, and transport at Member State level.

Andrej Vizjak, Minister of the Economy in Slovenia, which holds the current EU presidency, said, that greater investment is needed in wind energy "in order to breach the gap between the EU's goals, and today's reality". Currently, 80% of energy subsidies go to traditional fuels and nuclear energy, with just 20% going to renewables.

The time to act to meet such goals and to tackle climate change is short, stressed **Paul Magnette**, Federal Minister for Energy and Climate in Belgium, who emphasised that "the window of opportunity to act is closing". One key step for increasing and improving wind energy's share of the power mix, he said, would be to focus on increasing research efforts.

Manuel Pinho, Portugal's Minister of Economy and Innovation, warned that if quick steps were not taken towards a better use of renewables, the EU would go from importing 55% of its energy to 66% by 2030, making the economy even more dependent on energy from third countries. He presented Portugal's renewable energy mix, a combination of hydro and wind power, as a combination ideal for providing flexible, indigenous electricity at competitive energy prices.

Arthouros Zervos, President of EWEA, looked at the current wind energy situation and presented the association's new report, *Pure Power: wind energy scenarios up to 2030*. The report introduces development pathways for wind energy up to 2010, 2020 and 2030, studying the probable effects on electricity, greenhouse gas emissions and the EU economy.

He said, "There is no contradiction between economic growth and large-scale deployment of wind energy – on the contrary. Wind energy is a precious commodity that brings numerous benefits to our society. Not only does it revitalise the economy, it also creates new jobs, reduces EU dependency on imported fossil fuels, and facilitates better functioning electricity markets - which is desperately needed."

Wind energy currently meets 3.7% of EU electricity demand. *Pure Power* shows that the European Commission's goal of increasing that share to 12% by 2020 is certainly achievable. In 2007, wind power capacity in the EU increased by 8.5 GW, and on average, wind power capacity needs to increase by 9.5 GW per year over the next 13 years to reach 180 GW and meet 12-14% of EU power demand in 2020.

180 GW of wind in 2020 would produce 477 TWh of electricity, of which 133 TWh would come from offshore wind. This is equivalent to supplying the needs of 107 million average EU households. Wind power on this level would represent 18.1% of the total installed electricity-generating capacity in the EU, which is over half of the renewables contribution needed for the binding target. With the appropriate legislation, real benefits – economic and environmental - can be generated by wind energy for the whole of Europe.

The opening session was followed by a press conference at which the ministers discussed what needs to be done to ensure Europe reaches the 2020 target and carries on developing renewables and wind energy into the future.

EWEA Chief Executive **Christian Kjaer** concluded the press conference by saying, "We have seen that, provided the correct legislation is put in place soon, Europe can go a long way towards an energy supply that is superior to the business-as-usual scenario, offering greater energy independence, lower energy costs, reduced fuel price risk, improved competitiveness and more technology exports".

Over 3000 people are attending EWEC, which runs over four days until 3 April. The conference sessions are accompanied by an <u>exhibition</u> at which over 200 companies are present. Other sessions cover national policies, grid integration, offshore wind and project finance. On 2-3 April a <u>wind energy finance forum</u> will be held for the first time ever, and another first is the <u>job fair</u> on 2 April, which will bring together potential employers and employees in the sector.

For more information on EWEC, please click here.



Global wind installations pass 100 GW, and are predicted to rise to 240 GW by 2012

Wind energy is booming worldwide. Following another record year in 2007 with over 20 GW of new wind capacity, and additional installations at the beginning of 2008, the global wind market has now passed 100 GW. On the second day of the European Wind Energy Conference (EWEC) in Brussels, the opportunities and challenges facing the world's leading wind energy markets, plus the huge potential for the future, were discussed.

Steve Sawyer, Chief Executive of the Global Wind Energy Council (GWEC), opened the session by presenting GWEC's new publication, *Global Wind Energy Report 2007*, which provides an overview of the situation worldwide and its impressive recent expansion.

"Due above all to the stronger than anticipated growth in the US and China in recent years, and China's emerging manufacturers, which are helping ease global supply, there has been an unexpectedly strong increase in wind deployment all round the world," he explained. "As a result, GWEC now foresees the global wind power market growing by over 155% to reach 240 GW of total installed capacity by 2012".

Birger T Madsen, from BTM Consult, explained that his company forecasts 140,000 MW of annual installations over the next thirteen years, which will give a cumulative installed capacity of nearly 1 million MW (1,000 GW) by 2020.

"1,000 GW of capacity will enable wind power to provide 7–8% of the world's electricity demand by 2020," he added.

There are many markets worldwide whose development will help ensure this wind energy expansion. Senior Energy Specialist from the World Bank, Søren Krohn, looked at some of those with the most potential. Mexico is a "fully developed market for independent power producers", but has transmission issues and supply bottlenecks to overcome. Turkey has a "feed-in tariff system, which gives access to a wholesale market". Meanwhile in Morocco "there is a strong government commitment to wind energy, with a target of 1,000 MW of installed capacity by 2012, up from the current total of 124 MW".

One country which has already started installing significant amounts of wind energy is the US, which in 2007 added a record 5.2 GW of capacity to reach 16.8 GW. This accounted for about 30% of the country's new power-producing capacity in 2007. In Europe, wind energy made up 40% of new energy installations last year.

Rob Gramlich, from the American Wind Energy Association (AWEA), presented a new draft report, entitled 20% wind vision – a collaborative technical report. The document shows that it is technically and economically possible for 20% of US electricity to come from wind by 2030, up from just over 1% today.

Rob Gramlich stated that "we need to install over 16 GW annually in order to reach the 300 GW by 2030 that will give us the 20% of electricity from wind. We need to change people's perceptions so that they see that benefits such as jobs and a stronger economy are closely linked to our choice of power-generating technology."

While the North American wind industry is booming, South America has been slower taking off. Despite its vast natural resources, there is only 530 MW of wind capacity currently installed there. Christian Grütte from Leonardo Venablers in Spain presented the South American wind market. He outlined the reasons for the continent's slow start, citing political instability, lack of attractive incentives, limited grid access and restricted turbine supply as the major barriers.

He concluded that "South America has a potential wind energy capacity of more than 300 GW. In the coming years, governments should start introducing the reliable investor incentives and objectives the region's industry needs, in order to begin to fulfil this potential".

One of the South American countries with the best wind resources is Chile. Cristobal Garcia-Huidobro from Centinel presented the development of wind energy in Chile. Initially dependent on gas from Argentina, the country was left stranded when its neighbour cut off supplies in 2004. This eventually led to discussions on a renewable energy law, which came into force in March 2007. The law obliges generators with over 200 MW of installed capacity to meet a 10% renewables target.

Chile's first ever wind farm began operations in December 2007. Currently at just 18 MW, an additional 70 MW should come on line soon, and a second wind farm project is under development.

The chairman of the session, Peter Brun from Vestas, concluded by underlining, as all the speakers had done, the strong worldwide potential of wind energy.

He said, "Globally, we can see strong market trends, but there are still a lot of unclear areas and obstacles. The trends alone are not enough. We need policy stability and transmission planning. In this way, we can show policy-makers that wind is not a niche or 'alternative' form of energy, but a mainstream source of power."

In a later session, various awards were presented. Four Poster Awards went to René Cattin, Florian Bertsch, Simon Watson and Gabriele Michalke for their innovative and interesting designs.

The Scientific Award was presented to Stig Oye for his outstanding work in wind energy technology. The Excellent Young Wind Doctor award, given for the first time at this year's EWEC, aims to bring recognition to recently graduated PhD students. It was won by Dr. Jason M. Jonkman and Dr. Tonis Sant.

For more information on EWEC, please click here.



Tens of thousands of high skill jobs to be filled in wind energy

Tens of thousands of high skill jobs need to be filled to continue the high growth rates of the global market for wind energy technology. The biggest need is for technical profiles. For the first time at the European Wind Energy Conference (EWEC) today, the European Wind Energy Association (EWEA) held a specialised job fair, bringing 300 potential employees and 30 of the sector's leading companies together within the professional framework of EWEC.

"A very large part of our lives is spent at work and people are paying more and more attention to the products and services they help produce. The wind energy business needs to fill tens of thousands of jobs over the coming years to sustain the high growth" said Christian Kjaer, EWEA's Chief Executive. "Above all, Europe needs to educate far more technical staff and engineers to maintain its global leadership position in wind energy," he continued.

The wind energy sector employs thousands of people in Germany, Denmark and Spain - all pioneering countries in wind energy - where it has given local economies a significant boost. In Spain, a total of 35,000 jobs related to wind have been created, and 80,000 in Germany – of which 28,000 come from the machinery industry alone. There are 21,600 jobs of this nature in Denmark.¹ EWEA uses a tentative figure of 150,000 wind energy-related jobs in the EU altogether. According to the EC-funded MITRE project report, this could more than double by 2020, providing 368,000 new jobs in Europe.

The most sought-after profiles are in areas such as electrical or mechanical engineering, aerodynamics, project development, installation, and operations and maintenance. However, the rapid growth rate of the companies in the wind energy sector also requires a broad range of managerial profiles.

Visitors to the job fair were all very enthusiastic about wind energy and the career paths it offers. Fabrice Schurmans from Belgium, a bio-engineering student, said, "Renewable energies – and wind energy in particular – can help European energy independence. Wind energy is becoming ever more important, so I want to get involved now." Patricia Sánchez from Spain, studying for a Master's in Fluid Mechanics, agreed. "Wind energy is a sector which is going to grow and grow - it offers great employment opportunities."

The 30 organisations that participated in the job fair included: 3E - Airtricity - Alstom - Clipper Windpower - Colruyt - Electrabel - Electrawinds NV - Enercon - Gamesa - GL Group -Harakosan Europe B.V - ISET - LM Glasfiber - Mecal - Nuon-WEOM - Pauwels International NV - Proven Energy - REpower Systems AG - Risø DTU - SAMTECH - Siemens – Wind Power A/S -SINTEF Energy Research - Smulders - Valorem and Valréa SAS – Wind Prospect Group -WindVision - Winwind Oy

¹ Spain - AEE, 2006; Germany - BMU, 2006/VDMA, 2007; Denmark - DWEA, 2006

For more information on EWEC 2008, please click here



With increased research, renewable energy can supply more than 20% of Europe's energy demand

Delegates at the closing session of the European Wind Energy Conference and Exhibition (EWEC) today were reminded of the benefits that wind energy can bring. Provided a stable legal framework is put rapidly into place at European level, wind energy will bring security of energy supply, a stronger economy and a boost to employment, as well as helping tackle climate change. Speakers at the session focused on countries and regions which have already gone beyond the EU ambition level for wind power and other renewables.

Key-note speaker **Janez Potočnik**, EU Commissioner for Science and Research, introduced the session by highlighting the crucial role that research will play in going beyond the ambitious 20% target.

"Wind energy is a remarkable European success story. Europe is a global leader in the sector thanks to the skill of the research sector," said Commissioner Potočnik.

"But it is clear that we need more than a "business-as-usual" approach. The current mechanisms and models of cooperation for wind energy are insufficient to meet the challenges faced by the EU energy policy. By encouraging European Industrial Initiatives, we will strengthen energy research and innovation undertaken by industry and its partners. So a European Wind Industrial Initiative is a timely opportunity", said Commissioner Potočnik, referring to the European Commission's Strategic Energy Technology Plan (SET-Plan), which was adopted by the EU Council at the end of February 2008. A further initiative for research is the European Wind Energy Technology Platform (TPWind), whose Strategic Research Agenda, which will be released later this year, highlights the sector's research priorities.

Commissioner Potočnik was followed by representatives of some of the best-performing European areas for wind energy. Schleswig-Holstein in Germany gets over 30% of its electricity from wind. **Dietrich Austermann**, regional Minister of Science, Economic Affairs and Transport, spoke of the 7,000 jobs that have been created in the region through the use of wind power, the €3 billion that has been invested in the sector and the business opportunities created.

"Wind energy has been a real business success for the region. Some of the leading wind plant manufacturers and service providers have relocated there," he explained.

The correlation between wind energy and a strong economy can also be seen in Denmark. The country is the world's third most competitive economy according to the World Economic forum, and 21% of its electricity comes from wind energy.

Anne Højer Simonsen, Deputy Director General, Ministry of Climate and Energy, Denmark, said, "The Danish example shows that there is no contradiction between a competitive economy and large amounts of wind power. Since 1980, Denmark's economy has grown 75%. We are aiming to have 30% of our electricity coming from wind energy by 2025."

Ricardo González Mantero, Director of Energy and Mining, EREN, Spain looked at the Castilla y Leòn region of Spain, which gets half of its electricity from wind power. He discussed the policy

tools that have helped the renewables development (including the wind energy plan of 1999) and the heavy investment in wind in the last decade. He then outlined the essential elements for a significant energy contribution from renewables and wind energy.

"To enable a strong wind energy share, the most important things are dialogue, the exchange of knowledge and experience, favourable resources and political and public commitment", he concluded.

At EWEC this year there were a record 6,000 participants from 82 different countries. EWEC 2008 drew to a close this afternoon, as EU Commissioner for Science and Research Janez Potočnik awarded the wind energy sector's most prestigious prize – the Poul Ia Cour prize - to Jos Beurskens from the Energy Research Centre of the Netherlands (ECN), for his outstanding achievements and many years' service in the field of wind energy. Afterwards, Belgium handed over the role as host of EWEC to France, where next year's conference will be held, in Marseille, on 16-19 March 2009.

Jean-Louis BAL, Director for Renewable Energy at the French Agency for Energy and Environment (ADEME) said, "ADEME is delighted that the European wind industry has selected France for its annual conference in 2009. This prestigious event will focus attention on the abundant, yet largely untapped, wind energy potential in France and facilitate a discussion on the main barriers and challenges to the mainstream exploitation of this indigenous resource. The EWEC 2009 event will also help deliver sustainable solutions to energy markets across Europe."

Arthorous Zervos, EWEA President, concluded that "The four days of discussions and presentations at EWEC 2008 have reinforced the importance of wind energy as a potent energy and climate solution for Europe and the rest of the world. We have seen exactly how crucial it is that the European Commission's proposed Renewable Energy Directive is effectively and quickly adopted and implemented. In this way, Europe will benefit from all wind energy has to offer, and witness the coming of a new generation of energy supply."

For more information on EWEC 2008 please click here To find out about EWEC 2009 please click here TPWind website