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EVENTS, CONFERENCES

XIIth Wind Energy Forum, 30 November 2010, Warsaw, Marriott Hotel

We invite you to participate in the XIIth Wind Energy Forum. The Forum is an opportunity to meet and exchange opinions with other persons related to the wind energy sector. Representatives of the authorities and institutions crucial for the operation of the RES market are invited to participate in the Forum meetings.

The subject of the Forum will be selected soon. Certainly it will be the most current problem of the wind energy sector.

Registration for the Forum will start in September.

More details soon.



VIth „Wind Energy Market in Poland” Conference and Exhibition, 12-14 April 2011, Warsaw-Ożarów Mazowiecki, Mazurkas Conference Centre



We invite you to participate in the VIth „Wind Energy Market in Poland” Conference. This is the largest wind power industry event in Poland. In 2011 the Conference will last three days and for the first time it will be accompanied by an exhibition. Each year the Conference is attended by foreign investors interested in the construction of wind farms in Poland, representatives of the energy transmission and distribution sector, as well as representatives of industry associations. The Conference is a unique opportunity to meet representatives of governmental institutions and the Parliament responsible for the regulation and development of the wind energy market in Poland.

The exhibition offer is available on the [PWEA](#) website.

More details soon.

Please record both days in your calendar!

IREW Prize

The second edition of the IREW prize



For the second time in 2011 Polish Wind Energy Association will award the **IREW Prize**. It will be received by a person or group of persons who will publish the most interesting and honest text featuring wind power. The publication should contribute to the promotion of wind energy or present ecological, social or economic benefits of wind power. The prize is to distinguish the author and the publication which among many other texts would discuss wind power issues in the most competent way.

The prize is PLN 10 000 and a statuette.

The prize may be awarded to individuals or groups of persons. Awarded materials must be published or broadcast between 1 April 2010 and 24 March 2011.

Publications may be submitted until 25 March 2011. Announcement of the winner and awarding ceremony will be held during the Gala Dinner accompanying the VIth “Wind Energy Market in Poland” Conference.

The first edition of the prize was awarded to Mr. Piotr Cieśliński for an article published in Gazeta Wyborcza (“[A green island in the hub of the universe](#)”); distinctions were awarded to Mrs. Magdalena Krowicka and Mr. Przemysław Chudy, whose article was published in „Ekologia Przemysłowa” (“Breeze or gale: opportunities and limitations to wind power development in Poland”), and to Mr. Tomasz Zubilewicz for material broadcast in TVN (“Opening of the Łęki Dukielskie wind farm”).

Prize Regulations are available at: <http://www.psew.pl/konkurs.htm>

You are welcome to join!

PWEA ACTIVITY

NREAP approval conference

A National Renewable Energy Action Plan approval conference was held on 6 July in the Ministry of Economy. The meeting was attended by PWEA representatives: Mr. Krzysztof Prasalek and Ms. Katarzyna Michalowska-Knap. The Ministry was represented by three members of the Professional staff and, at the beginning of the meeting, Ms. Head Iwona Gawłowska. Key conclusions:

1. PWEA's application for full rejection of the NREAP and development of a new document was not approved. The Ministry's employees will correct the existing document. A corrected document is to be developed by end of July, to be submitted to Brussels by the end of August.
2. PWEA representatives particularly emphasized the issues related to:
 - a) deficit in biomass balance. In accordance with the PWEA's opinion on the NREAP the deficit amounts to 1810 ktoe, i.e. approximately 21050 GWh. A request has been made to make up for the deficit primarily through the use of wind power as the least expensive renewable energy source of the future.
 - b) erroneously defined full load equivalent of wind turbines. Due to the installation of not only brand new turbines in Poland, but also machines decommissioned in other states, the ratio is low. To achieve the assumed energy output it is necessary to install more wind capacity – approximately 8400 MW instead of 6110 MW proposed in the NREAP.
 - c) the Ministry's of Economy arguments referring to the statement that low wind power capacity in the draft NREAP (6100MW) stems from the position of PSE-Operator, who claims it to be the maximum safe level. PWEA representatives presented an analytical report by Franciszek Buchta, Ph. D., Eng., which proves much higher safe capacity levels in the system. Polish Wind Energy Association is of the opinion that the wind installed capacity that should be included in the NREAP forecasts amounts to at least 10.5 – 11 GW. Simultaneously we are of the opinion that entirely safe wind penetration in the NPS, amounting to 10.5 - 11 GW, should be increased in the case of investment in the construction of new power lines.

PWEA addressed to the Ministry of Economy an official notice concerning the abovementioned issues.

PWEA participated in a session of the Senate's National Economy Committee on 6 July 2010

On 6 July 2010 PWEA representatives (Christoph Sowa, Karol Lasocki) accompanied by a lawyer participated in the session of the Senate's National Economy Committee. The subject of the session was the information concerning the effects to date of the Act amending the Energy Law and certain other acts dated 8 January 2010. Apart from the interested Senators the session was attended by Deputy Minister for Economy, Joanna Strzelec - Łobodzińska and Director of Department for Promotion of Competition in the Energy Regulatory Office, Halina Bownik - Trymucha. PWEA representatives emphasized the following issues:

- expiry of the first deadline for payment of advances on the interconnection fee on 10 May 2010 demonstrated that the adopted statutory solutions so far did not result in unlocking connection capacity. Therefore, we put forward a demand to focus the legislator's attention on creating conditions for the development of grid infrastructure;
- the amended provisions in the current wording do not ensure sufficient transparency of the connection procedure; therefore, an improvement of the current regulations is required;
- some power system operators request investors to submit extracts from a local spatial development plan also including the terminal, whose submission in the area of the terminal is usually not possible. Hence the amendment to the Energy Law implemented to allow for market development is used to hinder investment in wind sources.

PWEA comments to assumptions to the National Greenhouse Gas Emission Reduction Programme

On 13 July Polish Wind Energy Association in a letter to the Minister for Economy presented its remarks concerning assumptions to the National Greenhouse Gas Emission Reduction Programme. In accordance with PWEA wind power – and more broadly, renewables – have been discussed too marginally.

Objections apply among others to lack of clearly and transparently specified fundamental selection criteria for areas, priorities and directions of intervention and measures. In PWEA opinion the selection of reduction options shall be made not only on the basis of emission reduction costs, but additionally also on the basis of technological life cycle assessment (LCA). It is worth noting that wind power is a proven technology, demonstrating one of the lowest CO₂ emission reduction costs – also when counted in accordance with the LCA methodology, and shall become the foundation of further GHG emission reduction in Poland.

Furthermore, the discussed document also omits a very important direction of changes, i.e. the development of power grids with regard to the needs of the renewable energy sector.

The „Assessment of GHG reduction potential in Poland by 2030” report attached to the assumptions to the NGHGERP contains a number of controversial results, incompatible with the European Commission’s documents, substantive errors and unsubstantiated recommendations. It is unreliable, for no representative of the renewable sector participated in its development.

Realisation of Poland’s accession obligations in the area of RES

On 24 June a session of the Environmental Protection, Natural Resources and Forestry Committee concerning the Information concerning the implementation of Poland’s accession obligations in the area of environmental protection stemming from the Treaty of Accession of the Republic of Poland was held. On 23 June Polish Wind Energy Association addressed to the Chairman of the Committee and its members and information concerning the implementation of targets in the area of RES.

At the end of 2009 the indicative target is estimated to be fulfilled in approximately 75% (the share of renewable electricity in national electricity consumption at the end of 2009 amounted to approximately 5.5% - all RES generated approximately 8.6 TWh of electricity, with gross electricity consumption by domestic consumers at the level of 149 TWh). Already today one could clearly state that the target for the development of renewables assumed by Poland for year 2010 will not be achieved!

Given the current national electricity consumption the shortage in RES electricity production amounts to approximately 2.5 TWh.

In the notice to the Committee PWEA requests a critical assessment of the current Progress of Poland’s implementation of the targets laid down in the Accession Treaty and to tackle the potential negligence related to the new commitments made by our country.

Full letter to the Committee ([see](#)).

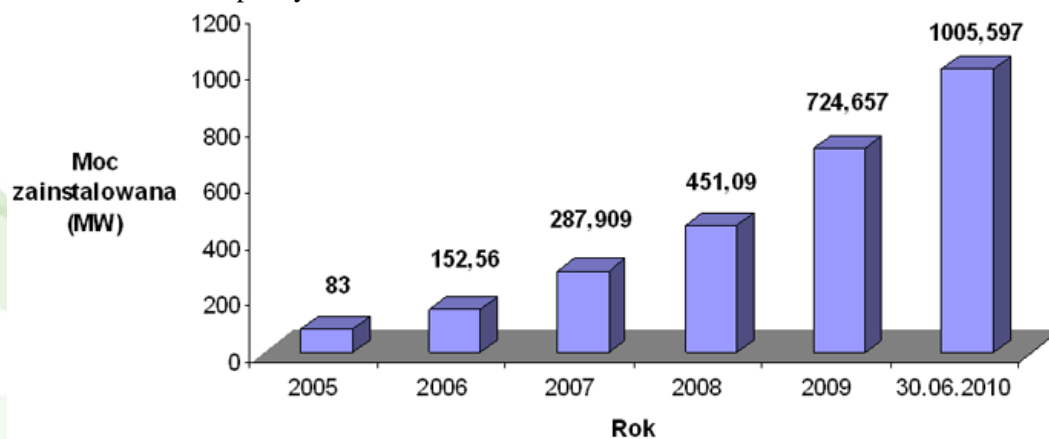
MARKET

First 1000 MW of installed capacity achieved

At the end of June total installed wind capacity in Poland reached 1005.6 MW. Achieving this milestone lasted more than 5 years.

The Energy Regulatory Office announced that at the end of June this year total installed wind capacity in Poland reached 1005.6 MW. Achieving this milestone lasted more than 5 years, as according to the data of the regulator in 2005 the installed capacity of wind farms amounted to just 83.28 MW.

However, the dynamics of connection of new wind farms has been growing over time. At the end of 2006 installed wind capacity was 152.56 MW, in 2007 it was 287.91 MW, in 2008 – already 451 MW and approximately 724.6 MW at the end of 2009. It means that during the first half of the current year the installed capacity of wind power has increased by approx. 281 MW, which is almost as much as the total installed capacity at the end of 2007.



Installed wind capacity growth in Poland

At the end of June this year the installed capacity of wind farms - the 1005.6 MW - accounted for approx. 44% of total capacity of Polish RES installations, amounting to 2281.79 MW not including co-firing installations.

Source: WNP

2009: 62% new capacity from RES

Last year saw a 17 GW increase in renewable capacity, what comprises 62 percent of total new capacity installed in the EU in (27.5 GW), says the European Commission's and Joint Research Centre's report published on 5 July. From 27.5 GW new capacity built in 2009 as much as 37.1 percent (10.8 GW) is wind power; gas comprises 24 percent, PV – 21 percent, coal – 8.7 percent, oil and biomass – 2.1 percent each, waste combustion plants – 1.6 percent, nuclear power – 1.6 percent and hydro – 1.4 percent.

The report demonstrates that already today the EU countries have 74 GW of installed capacity in wind farms, almost twice as much as the European Commission's target laid down in the White Paper. European Wind Energy Association (EWEA) predicts that in 2020 this figure will increase to 230 GW of which 40 GW will be offshore.

19.9 percent (608 TWh) of total electricity consumption in Europe (3042 TWh) in 2009 was covered from renewable energy sources. The highest share was of hydro power (11.6 percent), followed by wind (4.2 percent), biomass (3.5 percent) and solar energy (0.4 percent).

In accordance with the authors of the report, if the growth rates of renewable installed capacity to date are sustained, in 2020 up to 1400 TWh of electricity may be produced from RES, what would comprise approximately 35-40 percent of total electricity consumption in the EU.

Source: CIRE.PL / Rzeczpospolita

Offshore wind heads for record year

118 new offshore wind turbines with total capacity of 333 MW were fully connected to the grid in the first half of 2010. In addition, 151 turbines (440 MW) were installed but not yet connected to the grid. For comparison – in the entire 2009 installed offshore capacity in Europe amounted to 577 MW.

To date in Europe, being the world's offshore leader, there are 948 offshore wind turbines in 43 fully operational offshore wind farms, with a total capacity of 2 396 MW.

A report is available at ewea.org

Source: EWEA

Increased allocation to Measure 9.4 Production of energy from renewable sources

We would like to inform that in accordance with the demands presented by PWEA in the letter of 31 May 2010 to Minister Elżbieta Bieńkowska, the Minister has decided to increase the allocation to Measure 9.4 Production of energy from renewable sources under the Infrastructure and Environment Programme by approximately PLN 112.7 million PLN.

Due to the strong interest in Measure 9.4 Production of energy from renewable sources under the Infrastructure and Environment Programme, the Minister of Regional Development Elżbieta Bieńkowska on 5 July 2010 made the decision to increase the allocation to Measure 9.4 by approximately PLN 112.7 million by reallocating funds within the Priority Axis IX of the Operational Programme Infrastructure and Environment: Environment-friendly energy infrastructure and energy efficiency.

The Ministry of Regional Development allows the possibility of further increase of funds for Measure 9.4, depending on the course of project implementation in other Measures and the development of potential savings under Priority IX of the OP IaE.

Source: Ministry of Regional Development

NREAP delays will slowdown investment

Slow pace of works on the "National Renewable Energy Action Plan" may threaten green energy investors.

Already today the Ministry of Economy announced that it will send the NREAP to the European Commission by the end of August. However, a two-month delay in development of the document will in accordance with the Institute for Renewable Energy translate into decreased interest in the Polish "green" energy market. Furthermore, investment risks directly related to the lack of a stable legal framework and state policy will increase.

'The delay pleases certain circles, for instance the national corporate energy sector. To date, due to a long list of climate issues and prolonging negotiations and disputes between the government and the European Union, it was not possible to develop a reliable business plan for the coal energy sector. At the same time the EU invested in RES (almost 2/3 of all new energy investments in the recent years). A significant delay in final approval of the Polish NREAP by the Commission will result in Poland suffering from a slowdown in the renewables sector similar to that experienced by the professional energy sector. The latter gains not only by stopping gradual loss of market position, but also through the decrease – if only temporary – of its market value given new IPOs', explains Grzegorz Wiśniewski, President of Institute for Renewable Energy. As he says, this may be the very beginning of more significant trouble for renewables.

'This year the EU funds for years 2007-2014 will actually be exhausted. The increased risk related to the delay in the development of the NREAP as well as the low quality and non-ambitious approach adopted in the current draft of the NREAP, which lacks credibility and specific support schemes, the world of finance, to date RES-friendly, may start to avoid the sector in Poland due to the political and legal risks. Until the "system" NREAP is approved, the RES sector is exposed to temporary and not necessarily well-thought actions and often empty gestures such as the "biogas plant in each commune", while it lacks a protective umbrella extended at least until 2020' explains Grzegorz Wiśniewski.

The delay in submitting the „National Renewable Energy Action Plan” will also contribute to the Poland's failure to meet further deadlines related to the implementation of the EU's Directive 2009/28/EC.

"Poland does not portend meeting the second key deadline – legal implementation of the Directive by the end of the current year. In the current situation the penal procedure entails financial sanctions, probably in the form of cutting the EU funds still available to Poland in the 2007-2014 perspective, of which only an insignificant proportion (less than 1 percent instead of recommended 4 percent) was allocated to RES', President of the Institute for Renewable Energy explains.

Source: WNP.PL

Wind farms – yes, but not recycled

‘The number of wind farms in Poland continues to increase, what is one of the assumptions to Directive 2009/28/EC on the promotion of the use of energy from renewable sources now being implemented. Unfortunately, 80% of grid connection applications pertains to obsolete wind turbines of small capacity, imported from Germany and Denmark; these occupy the best wind power sites’, says PWEA President Jarosław Mroczek. ‘These are old machines, with a capacity of 500 – 700 kW. This makes good, energy efficient sites to be exploited with technologically poor equipment lacking spare parts and producing poor quality electricity’, adds Mroczek.

How significant the treat caused by obsolete turbines may be was learned by the inhabitants of the village of Horni Vitkov in the Czech Republic (Chrastava district). In autumn last year one of the six 500 kW wind turbines built there was subject to auto-destruction, most likely caused by strong wind. The turbines usually come from Western Europe, usually from Germany, where after being worn out they are sold to the Czech Republic at the price of scrap.

Their technical condition is not subject to official verification. To avoid similar failures, we should invest in modern technologies. Part of the public is against development of this energy sector in Poland. If we continue to import old turbines that may be destroyed, the sector may lose the rest of the support. What is more important, efficiency of the worn-out equipment is poor.

Source: Ekopartner

How do Polish companies feel on the wind power market

Polish companies are just learning how to earn on the wind energy boom. Wind farm development will benefit primarily the world’s leaders.

In July this year in Poland wind turbines reached the capacity of 1000 MW. Had we assumed that their actual installed capacity by 2020 will reach only 8000 MW, which is the capacity that may be connected to the grid in the opinion of PSE Operator, the investors may allocate more than €10 bn to wind power in Poland (counting €1.5 million for 1 MW of installed capacity).

Most profit will go to wind turbine manufacturers. As it stems from the analyses carried out by European Wind Energy Association (EWEA), on average approximately 75 percent of construction costs of 1 MW of installed capacity is the cost of purchase of the turbine. However, the Polish labour market and the tax office will not benefit soon.

‘Wind turbine manufacturers did not invest in Poland, for the wind energy market is growing at a pace of approximately 200 MW per year. The analyses demonstrate that launching wind turbine production on a market is profitable when annual capacity growth exceeds approximately 500 MW’, says Jarosław Mroczek, President of Polish Wind Energy Association and President of Szczecin’s EPA company, a developer of wind farm projects. The capacity growth is too slow,

whereas the wind projects market is in very good condition. This is because large energy groups, such as Enea or Tauron Polska Energia, do not develop the projects themselves – they are ready to purchase projects. Wind power development also creates new sales opportunities for steel structure manufacturers (production of wind turbine towers). The number of companies producing the towers in Poland is increasing. In accordance with EWEA calculations, estimated share of the tower's value in the costs of installation of 1 MW of wind power is approximately 6.5 percent.

'I think that Polish companies have somewhat missed the launch of the onshore wind sector. However, in the case of offshore, whose potential we estimate at 1.5 GW, the situation will be better. There are companies which already today start cooperating for instance with the Danish Skykon group' says Grzegorz Wiśniewski, President of the Institute for Renewable Energy.

Polish companies also earn during the construction phase of a wind farm investment, comprising 10-15 percent of the entire investment value.

'It is estimated that despite relatively low growth rates of the wind energy sector in Poland already more than 2000 people are employed by it', says President Jarosław Mroczek. The popularity of wind power is increasing not only among large investors, such as energy groups or investment funds. Smaller installations are an interesting market for domestic manufacturers.

Source: WNP.PL

A giant booms the economy

A giant investor operating in the Goleniów Industrial Park attracts first co-operators, what may result in as much as a couple of hundred additional jobs.

A huge LM Wind Power factory producing wind turbine rotor blades measuring a couple of tens of metres of length is one of the flagships of the Goleniów Industrial Park. Already today it employs more than 300 people, with target employment to reach 1200. More importantly, it is a magnet for co-operators and suppliers collaborating with the company. Their emergence will lead to another 200 jobs

Source: Kurier Szczeciński

TECHNOLOGY

Stabilisers will allow for construction of drifting offshore wind farms

DeepCwind – a consortium established by R&D centers and private companies – is working on a technology allowing offshore wind farms to maintain blue water stability even during most severe gales.

The most significant obstacle to be avoided during construction of blue water offshore wind farms is the fact that large and heavy rotor blades make turbines susceptible to capsizing, in particular with



higher waves. Shallow water turbines are built on foundations driven in the bottom; however, in the case of blue water installations such a solution would be impractical.

Without ready, proven solutions that could help to keep the turbines vertical, DeepCwind is testing three different concepts on 1:50 models in special wave-simulating pools on University of Maine in Orono. One solution is a huge drifting pipe with a massive keel and additional anchors. The second concept is based on fixing the turbine to the bottom using cables, similarly to many drilling platforms. The third concept is based on a pair of partially submersible

platforms balances similarly to a catamaran and additionally fixed to the bottom using cables.

The studies will allow the consortium to select a solution for the second stage of tests, when the engineers will build a 30 m model of a wind turbine (1:3 scale). In spring 2012 the prototype is to be installed 4 km from the shore of the Monhegan Island, when it will drift 120 m above the sea bottom.

The prototype is to allow for the assessment of behaviour of an actual wind turbine during particularly severe gales. ‘What is beautiful in a scaled model is that we may simulate the largest gale of the 50-years within a couple of weeks’, says Habib Dagher of University of Maine, Director of the DeepCwind consortium, meaning that the waves affecting the prototype will be three times as high as for a full-sized turbine with a height of 90 metres.

The first full-sized, 3-5 MW machine is to be installed offshore in 2014.

Source: New Scientist/ xtech.pl

Works on a method for more precise wind speed forecasts

A calculation method and software allowing for forecasting wind farm output is being developed by Tomasz Rubanowicz of Electrical and Control Engineering Faculty. His application may save wind farm owners from paying stipulated penalties stemming from erroneous assumptions. Precise forecasts facilitate power grid control by operators and optimum resource allocation.

Currently available applications are expensive; usually owners of small wind farms cannot afford to purchase it. Furthermore, it is imprecise, with forecast errors reaching 15-20 percent. Low precision of power forecasts may have adverse economic effects for a company, stemming from additional fees.

The scientist, directed by Professor Elżbieta Bogalecka, Ph. D., conducts research related to the assessment of reliability of production and meteorological data, the selection of forecast model structure, the assessment of known analytical models, the determination of neuron model structure, simulation and experimenting. His purpose is to implement the calculation method. The tool will be useful for subjects responsible for power grid balancing and wind farm owners.

Source: PAP

Turbine City

Most likely Norway has the best wind power conditions worldwide. Its shoreline is the longest and windiest in Europe.

The oil industry gave Norway energy independence, experience in this sector of the economy and a tremendous investment capital. Now it is time to exploit the potential of its location and new ecological technologies that will bear the country's energy demand and additionally offer the sale of surplus electricity.



A design by the Portuguese ON OFFICE assumes the use of renewable energy sources in quite unusual way. The designers propose to create living space in wind turbines.

The design assumes construction of 49 turbines with a capacity of 8 MW each along the shore. The total capacity would amount to 329MW. This would allow for supplying approximately 120 000 households located both inside and outside the modern structures. Only one megawatt of 329 produced by the wind turbines will be sufficient to power the infrastructure.

Construction of hotels, spas and museums in turbines would boost tourism and increase public awareness concerning the use of renewable energy sources.

Stavanger is known for many natural attractions; furthermore, this is the oil capital of the country. Owing to the construction of wind turbines a true „sustainable revolution” is about to come here. The Stavanger turbines have the chance of becoming the new icons of the country, comparable to the largest architectonic symbols, without colliding with the image of the ancient city.

Location: Stavanger coast, Norway. **Area:** 31.500 m² (hotel, museum)

Source: Green2magazyn.pl