



Ślupsk, January 21, 2013

**Offshore wind energy - an opportunity
for the development of maritime
industry and coastal regions**
- conference summary



OFFSHORE WIND ENERGY

**an opportunity for the development of
MARITIME INDUSTRY AND COASTAL REGIONS**

January 21, 2013, Słupsk

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Table of contents

Introduction	5
1. Session I – „Conditions for the development of the maritime industry and offshore wind energy“	7
2. Session II – „Offshore wind energy and regional development“	11
3. Session III – „The influence of science and education on the development of offshore wind energy“	14
4. Summary	16

Introduction

Conference „Offshore wind energy - an opportunity for the development of maritime industry and coastal regions” took place on 21st of January 2013 in Słupsk Technological Incubator, in Słupsk (Poland).

The event was coordinated by the Foundation for Sustainable Energy, Słupsk Technological Incubator, Hanseatic Higher School of Management and Pomeranian Regional Development Agency.

The conference was held under the patronage of the **Polish Senate Marshal** - Bogdan Borusewicz, **the Minister of Transport, Construction and Maritime Economy** (MTBiGM) - Sławomir Nowak, **Marshal of the Pomorskie Voivodeship** - Mieczysław Struk and **Marshal of the Zachodniopomorskie Voivodeship** - Olgierd Geblewicz. **Kazimierz Kleina, Member of the Polish Senate**, held an organizational patronage over the conference.

SMDI Advisory Group, Ernst & Young Poland, windhunter prognoza, akademia wiatru, Maritime Institute in Gdańsk and Polish Offshore Wind Energy Society were substantive partners of the event.

The purpose of the conference was to evaluate the development perspectives of Polish coastal regions based on the offshore wind energy and maritime industry. During the conference the potential economic benefits arising from the development of offshore wind energy in Polish maritime areas were presented. Also, the participants presented the system environment for offshore wind energy in Poland. The participants of the conference identified the barriers which prevent the development of the sector and presented solutions that would allow the use of economic and social potential of the sector.

The conference was inaugurated by a video statement of the former Prime Minister and the former President of the European Parliament professor Jerzy Buzek, who stressed that the development of offshore wind energy is purposeful, not only because of the need to fulfill the objectives of the energy and climate policy of the European Union, but also because of the impulse for the development of coastal regions, which is associated with the construction of offshore wind farms.



The event was attended by **over 300 participants**, including many representatives of the government, parliament and local authorities: **the Secretary of State in the Ministry of the Environment and the chairman of Civic Platform in Zachodniopomorskie** - Stanisław Gawłowski, **the Undersecretary of State in the Ministry of Transport, Construction and Maritime Economy** - Anna Wypych - Namiotko, **Member of the Polish Senate, chairman of the Budget and Public Finance Committee, deputy chairman of Pomorskie Regional Board of Civic Platform** – Kazimierz Kleina, **Deputy Marshal of the Pomorskie Voivodeship** - Wiesław Byczkowski, **Deputy Marshal of the Zachodniopomorskie Voivodeship** - Andrzej Jakubowski, **Member of the Board of the Pomorskie Voivodeship** – Czesław Elzanowski, **Deputy Director of the Department of Fisheries in the Ministry of Agriculture and Rural Development** - Rita Kameduła - Tomaszewska, **director of the Maritime Office in Słupsk** - Tomasz Bobin, **Parliament Members:** Piotr Bauć, Terasa Hoppe, Zbigniew Konwiński, **Senate Members:** Leszek Czarnobaj, Roman Zaborowski, **President of Słupsk** - Maciej Kobylński, **Mayor of Byków** - Ryszard Sylka and **Mayor of Ustka** - Jan Olech.



In the photo from the left to right: President of FNEZ Maciej Stryjecki, director of the Maritime Office in Słupsk Tomasz Bobin, Secretary of State in the Ministry of the Environment Stanisław Gawłowski, Member of the Polish Senate Kazimierz Kleina, Undersecretary of State in the Ministry of Transport, Construction and Maritime Economy Anna Wypych-Namiotko, Deputy Marshal of the Pomorskie Voivodeship Wiesław Byczkowski.

The conference was divided into three sessions. The first session was about the conditions for the development of offshore wind energy, the second about the relation between the offshore wind energy and maritime industry, and the opportunities for regional development based on maritime

industry and offshore sector, and the third about the role of science and education in the development of maritime industry and offshore energy.

Each session began with presentations prepared by the national and foreign experts, which introduced the discussion with panelists and participants of the conference.



1. Session I – „Conditions for the development of the maritime industry and offshore wind energy”

The first session was inaugurated by **Aleksander Gabryś from Ernst & Young - the main Substantive Partner of the conference**. He presented the most important factors that determine the investment decision in the offshore wind energy sector. He also presented the expected scale of development of offshore wind energy in Europe. According to the estimates offshore wind energy in Europe should reach **44 GW of installed capacity in 2020**. Development of the sector will involve capital investment of about **165 billion euros**. According to Ernst & Young expert, in order to exploit the potential of offshore wind and to be able to effectively obtain project financing, Poland will have to create a competitive economic and regulatory conditions compared to Great Britain and Germany.

The most important conclusion of the presentation of Aleksander Gabryś is the fact that **only the adequate profitability of the investment, the stability and predictability of the regulatory environment, supported by ambitious quantitative goals, will allow Poland to use the potential of offshore wind energy, which will lead to the development of Polish coastal regions**.



In the photo from the left to right: Undersecretary of State in the Ministry of Transport, Construction and Maritime Economy Anna Wypych-Namiotko, representative of EDP Renováveis Enrique Álvarez-Uría Berros, Vice-president of PGE Energia Odnawialna S.A. Michał Prażynski, President of FNEZ Maciej Stryjecki, Manager in the Business Advisory Department in Ernst & Young Aleksander Gabryś.

The second presentation was introduced by the **President of the Foundation for Sustainable Energy (FNEZ), Maciej Stryjecki**, and was about the legal, political and infrastructural development of offshore wind energy in Poland. President of FNEZ Maciej Stryjecki referred to the conclusions of the presentation of Aleksander Gabryś and analyzed the extent to which appropriate conditions for the development of offshore wind farms are currently being met in Poland. Without a doubt, the launch of the first round of the issuance of location permits, in which 14 locations have already been indicated for the OWF projects, was a big success. Unfortunately, the most important factors determining the implementation of these very capital-intensive and risky investments: a stable and effective regulatory environment and the possibility of grid connection, still are not met in Poland, therefore the initial investment interest begins to decrease. **Maciej Stryjecki proposed solutions that would enable dynamic development and the use of the potential of OWF sector in Poland.** The most important solutions are **to identify and include quantitative targets into strategic documents of the energy sector at the level of about 6 GW of installed capacity in the years 2025 to 2030**, which will provide economies of scale and lead to development of manufacturing of wind power components by multinational companies in Poland. As a consequence it will reduce the cost of construction of OWF. The second action is the **fast adoption of a support system, which will be attractive to investors as well as will promote cost-optimizing solutions.**

Support system should be set up either in the RES Act, or under a separate legislative package. Maciej Stryjecki also stressed the need for **additional support for pilot projects**, which are burdened with additional risk, and the necessity of **creating the right conditions to launch the "second round" of the development of offshore wind energy in terms of location and connection possibilities.** According to President Maciej Stryjecki, the final element for the appropriate **development of the sector in Poland will be the development of logistics facilities and personnel support based on existing ports, shipyards and coastal research centers.**



In the photo from the left to right: Member of the Polish Senate Kazimierz Kleina, Secretary of State in the Ministry of the Environment Stanisław Gawłowski, Undersecretary of State in the Ministry of Transport, Construction and Maritime Economy Anna Wypych-Namiotko, representative of EDP Renováveis Enrique Álvarez-Uría Berros, Vice-president of PGE Energia Odnawialna S.A. Michał Prażynski, Manager in the Business Advisory Department in Ernst & Young Aleksander Gabryś, President of FNEZ Maciej Stryjecki.

After two introductory presentations a **discussion panel "Maritime industry and offshore wind energy in the context of the Polish economic and energy policy"** began and was moderated by Maciej Stryjecki, with the participation of: **Anna Wypych-Namiotko** - Undersecretary of State in Ministry of Transport, Construction and Maritime Economy, **Stanisław Gawłowski** - Secretary of State in the Ministry of the Environment, **Kazimierz Kleina** - Member of the Senate, chairman of the Budget and Public Finance Committee, **Enrique Álvarez-Uría Berros** – representative of EDP Renováveis, **Aleksander Gabryś** - Manager in the Business Advisory Department in Ernst & Young and **Michał Prażynski** - Vice-president of PGE Energia Odnawialna S.A.

Panelists agreed that efforts should be made to introduce solutions that would enable the development of renewable energy technologies in the Polish energy sector, and that **offshore wind energy is the most natural solution for Pomerania. The development of offshore wind should be supported by representatives of coastal regions in the government and parliament.** It is important to seek such regulatory and system solutions that will enable the development of the domestic maritime industry, which will provide support, construction and maintenance of offshore wind farms and will contribute to the development of coastal regions. Representatives of government insisted on the need to maintain balance between all forms of use of Polish maritime areas. **Panelists put emphasis on the necessity to begin consultations with the fishery sector.** An opportunity to work on a dedicated offshore wind energy system solutions package was mentioned, in case of further delays in works on the Renewable Energy Sources Act.



In the photo from the left to right: Member of the Polish Senate Kazimierz Kleina, Secretary of State in the Ministry of the Environment Stanisław Gawłowski, Undersecretary of State in the Ministry of Transport, Construction and Maritime Economy Anna Wypych-Namiołko, representative of EDP Renováveis Enrique Álvarez-Uría Berros, Vice-president of PGE Energia Odnawialna S.A. Michał Prażyński, Manager in the Business Advisory Department in Ernst & Young Aleksander Gabryś, President of FNEZ Maciej Stryjecki.

Representatives of investors stressed that the legal and regulatory environment of the sector still needs changes that will ensure the appropriate level of the support and competitiveness of the Polish market for international capital. They informed that **Poland cannot rely on investment in offshore wind energy, if works on support system are not completed.**

Investors also expressed support for the proposal to launch the second round of site selection for OWF and an increase in the connection possibility, which would allow a larger group of entities to invest in the Polish market. They also supported the call for determining stable, long-term targets for offshore wind energy, which will increase investment certainty and allow cost optimization. Investors have stated that changes in Polish offshore wind sector were positive. They hope the changes will continue and the process of improving the system environment of offshore wind energy will accelerate in Poland.

One of the main conclusions of the discussion was that a government programme that defines objectives and the necessary actions can help to create conditions for the development of the maritime energy and industry sector.

2. Session II – „Offshore wind energy and regional development”

The session was initiated by a presentation of the German experience in the development of coastal regions based on offshore wind energy, which was presented by **Gert Proba**, Business Development Director at Rostock Business and Technology Development GmbH. Gert Proba showed how offshore wind energy has led to a development of port of Rostock, stressing that it is an **extensive process and should be started as early as possible in Poland.** He assured that the natural conditions in the Baltic Sea are comparable to the North Sea and the Polish maritime areas and maritime industry have great potential, and **there is no doubt that Polish coastal regions are competitive.**



In the photo from the left to right: Deputy Marshal of the Pomorskie Voivodeship Wiesław Byczkowski, Deputy Marshal of the Zachodniopomorskie Voivodeship Andrzej Jakubowski, representative of AREVA Wind GmbH Niccolo Samarelli, President of the Pomeranian Regional Development Agency Mirosław Kamiński, Deputy Director in the Department of Fisheries in the Ministry of Agriculture and Rural Development Rita Kameduła-Tomaszewska, representative of the National Marine Fisheries Research Institute Eugeniusz Andrulewicz, Member of the Senate Kazimierz Kleina, Business Development Director at Rostock Business and Technology Development GmbH Gert Proba.

Mariusz Witoński, the Vice President of the Polish Offshore Wind Energy Society (PTMEW), in the second introductory presentation explained the **national and international experience in creating the legal, political and infrastructural development of the maritime industry**. According to Mariusz Witoński offshore wind energy is an excellent opportunity for regional development and growth. **If offshore wind energy projects in Poland are developed, they will lead to the creation of 9,000 new permanent jobs in the Polish shipbuilding industry**. Mariusz Witoński presented the experience of Polish companies in the maritime industry, which provide foreign markets with wind farm components and ships used in the construction process of offshore wind farms. He stressed that Poland should seek to benefit from the situation on the European market and support the development of ports and shipyards, which already supply the German and British markets with specialized vessels and components of wind farms. **To use the Polish potential in this field, it is necessary to establish a stable law for offshore wind energy** and national and regional politicians have to create favourable conditions for the Polish maritime industry.

Member of the Polish Senate, Kazimierz Kleina, was the moderator of the second discussion panel, with: **Wiesław Byczkowski** - Deputy Marshal of the Pomorskie Voivodeship, **Andrzej Jakubowski** - Deputy Marshal of the Zachodniopomorskie Voivodeship, **Tomasz Bobin** - director of the Maritime

Office in Słupsk, **Rita Kameduła-Tomaszewska** - Deputy Director in the Department of Fisheries in the Ministry of Agriculture and Rural Development, **Eugeniusz Andrulowicz**, representative of the National Marine Fisheries Research Institute, **Mirosław Kamiński** – President of the Pomeranian Regional Development Agency and **Niccolo Samarelli** from AREVA Wind GmbH.



In the photo from the left to right: Deputy Marshal of the Pomorskie Voivodeship Wiesław Byczkowski, Deputy Marshal of the Zachodniopomorskie Voivodeship Andrzej Jakubowski, representative of AREVA Wind GmbH Niccolo Samarelli, President of the Pomeranian Regional Development Agency Mirosław Kamiński, director of the Maritime Office in Słupsk Tomasz Bobin, Deputy Director in the Department of Fisheries in the Ministry of Agriculture and Rural Development Rita Kameduła-Tomaszewska, representative of the National Marine Fisheries Research Institute Eugeniusz Andrulowicz, Member of the Polish Senate Kazimierz Kleina.

The representatives of regional authorities assured that offshore wind energy is a part of a regional development strategy, as part of the plan to reinforce energy security in the northern Poland. They expressed the necessity to support the technology which allows the revitalization of the shipbuilding and port industry. It was noted that **offshore wind energy can be a great opportunity for the development of smaller ports**, such as Ustka or Darłowo, which should develop infrastructure facilities and prepare to support the construction and maintenance of offshore wind farms. Member of the Polish Senate Kazimierz Kleina suggested that if the right conditions for investment are created, **Darłowo could become a center of the maritime industry as Gdynia**, providing support for offshore wind farms located around Słupsk Bank. A representative of a foreign investor, the manufacturer of turbines for offshore wind farms, expressed the willingness to invest in production lines in Poland. He also stressed that the support of the Polish government and the clear statements concerning the quantitative targets for the development of offshore wind energy are necessary.

The targets for the development of offshore wind energy must at the same time meet the requirement of a "break-even point" of investing in new factories, for example of offshore wind turbines. Such a threshold can be reached with 6-7 GW of installed capacity target in 2030.

The next part of the discussion was dominated by representatives of the fisheries concerned about possible restrictions on fishing areas due to the construction of large-scale offshore wind farms. Government representatives assured that the process of issuing location decisions was established in a way to protect all users of maritime areas, including fishermen. Sites located in areas important for fishery industry were given a negative opinion by the Minister of Agriculture and Rural Development. In response to a complaint by a representative of the fisheries, that permits for the construction of wind farms were issued without consultation with fishermen, President of FNEZ Maciej Stryjecki explained that **issued permits are only called "permits for the construction of the OWF", but in fact they do not allow to start the construction. They also do not determine the final quantity, size and location of an offshore farm. Investors will be required to carry out public consultations at the second stage of the investment process, during the environmental impact assessment procedure.** Maciej Stryjecki said that after the research of the maritime environment and the completion of the report on environmental impact of the wind farm, anyone interested will be able to read the entire document and give their comments to the Regional Director for Environmental Protection (RDOŚ). Before issuing the decision on environmental conditions, which determines the quantity and location of particular energy plants, RDOŚ must refer to all the comments from the public consultation process. Representatives of the fisheries expressed a strong desire to participate in the public consultation process in order to be able to communicate their concerns and expectations to the investors and authorities.

3. Session III – „The influence of science and education on the development of offshore wind energy”

The third session was opened by a presentation of **Monika Zajkowska**, rector of the Hanseatic Higher School of Management (WHSZ), on cooperation between business and science in the development of offshore energy industry, and by a presentation of **Juliusz Gajewski** from the Maritime Institute in Gdańsk, on research programmes in Europe related to the development of offshore wind farms.

The presentations emphasized **the need to involve the government in support of academic centers and research programmes** which will minimize investment risk and thereby reduce financing costs of offshore wind. Attention was also drawn to the fact, that the possibility of the development of offshore wind energy in Poland will require **qualified staff involved in the preparation, installation and operation of the projects, and it needs the development of higher education.**

The discussion panel about **the importance of maritime research centers and R&D cooperation in creating regional development based on maritime industry and offshore wind energy** was held with: **Czesław Elzanowski** – member of the board of the Pomorskie Voivodeship, **professor Marek Grzybowski** from Gdynia Maritime University, **Tadeusz Żurek** - Head of the Bureau of Energy Planning in the Department of Economic Development of the Marshal's Office in Gdańsk, **John Sturman** – president of the board of the Institute of Marine Engineering, Science & Technology, **Juliusz Gajewski** – representative of the Maritime Institute in Gdańsk, **Roman Synowski** – president of the board of windhunter group and **Artur Stawikowski** – technical director in Green Power Polska. The panel was moderated by **Władysław Pędziwiatr** - Chancellor of WHSZ.

Panelists agreed that the development of offshore wind energy is a **vast challenge for Polish scientific and research centers**. At the same time the creation of appropriate support for the sector by **ensuring qualified staff that can handle all stages of the investment process, is a great opportunity for Polish research centers**. The pre-completion research of the marine environment, and research programmes carried out with the involvement and support of the government, will also be an opportunity for the development of coastal research centers, Polish technology, innovation and increasing competitiveness of the Polish maritime industry. The panelists stressed the **need for a well-coordinated, close cooperation between science and business, to offer adequate research, development and educational support for the sector**.



In the photo from the left to right: member of the board of the Pomorskie Voivodeship Czesław Elzanowski, professor Marek Grzybowski from Gdynia Maritime University, Head of the Bureau of Energy Planning in the Department of Economic Development of the Marshal's Office in Gdańsk Tadeusz Żurek.

4. Summary

Conference "Offshore wind energy - an opportunity for the development of maritime industry and coastal regions" was the first such major event in Poland, dedicated to offshore wind energy in Polish maritime areas. The event gained the most, so far, interest of representatives of the ministries, administration, regional and local authorities and local entrepreneurs who would participate in development of offshore wind farms projects.

Such a broad group of participants allowed relevant discussion about the conditions of the development of offshore energy industry in Poland, and their impact on the development of coastal regions. The participants of the conference, including **representatives of the government, parliament, regional and local authorities, declared support for the construction of offshore wind energy projects in the Baltic Sea.**

The most important achievements in favour of the creation of offshore wind energy market in Poland:

- change in the maritime law, which made it possible to successfully indicate several areas for the development of offshore wind farms,
- issuing 14 location permits for offshore wind farms and connection conditions that allow the construction of 2.2 GW by 2025,
- starting the production in Polish shipyards of modern vessels for transport and construction of offshore wind farms, and the production of components of wind farms in Polish ports,
- the interest of domestic and foreign investors in the Polish offshore wind energy market and industry,
- political will at the national, and especially, regional level for the development of offshore wind energy.



In the photo from the left to right: Secretary of State in the Ministry of the Environment Stanisław Gawłowski, Member of the Polish Senate Kazimierz Kleina, Undersecretary of State in the Ministry of Transport, Construction and Maritime Economy Anna Wypych-Namiotko.

The most important problems, that block the development of offshore wind energy in Poland, are:

- lack of a stable and efficient support system for generating energy in offshore wind farms,
- lack of long-term goals, defining the share of offshore energy in Polish energy mix, and the scale of possible support of this technology,
- lack of a coordinated policy of the government and local authorities for the offshore energy industry.

The most important tasks, which will exploit the potential of offshore energy development, are:

- creating a programme of development of offshore wind energy and industry, which will identify targets and instruments to achieve them, and coordinating actions of implementation of the programmes at various levels of administration,
- passing a support system which will allow effective construction and operation of offshore wind farms, and which will be competitive with foreign support systems and will allow securing investment capital,
- increasing connection possibilities for OWF by verifying issued connection conditions for onshore wind farms,
- preparing the second round of localization selection for OWF through competitions, in which investors will apply for location decisions and the grid connection conditions,

- regional policy, aimed at maximizing the potential of small and medium-sized ports and maritime industry in Darłowo, Ustka, Słupsk, in order to create a modern service and supply chain centers for offshore wind farms, competitive to the German market,
- regional education and research policy, aimed at the creation of human resources and technological base for the domestic maritime industry and offshore wind energy.



In the photo from the left to right: Prezes FNEZ Maciej Stryjecki, director of the Maritime Office in Słupsk Tomasz Bobin, Secretary of State in the Ministry of the Environment Stanisław Gawłowski, Member of the Polish Senate Kazimierz Kleina, Undersecretary of State in the Ministry of Transport, Construction and Maritime Economy Anna Wypych-Namiołko.

The participants of the conference discussed a number of solutions which will enable the construction of offshore wind farms in Polish maritime areas, and the development of industry in Polish ports forming the support infrastructure for the sector. In particular, the participants drew attention to the need to accelerate works on the renewable energy sources act and the introduction of efficient and stable support system tailored to the specifics of the technology, as well as the inclusion of quantitative targets for the development of offshore wind energy in strategic documents of the energy sector for the years 2020 to 2030. A necessity of involvement in the implementation of OWF projects of research centers and dialogue with the representatives of fisheries sector has also been stressed.



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