

Opening Speech by German Parliamentary Secretary Mr Michael Müller
European Wind Energy Conference 2006
February 27, 2006
Athens

President,
Minister Sioufas,
Commissioner Dimas,
Ms Thomsen,
Ladies and Gentlemen,

I am delighted to have been invited to the European Wind Energy Conference 2006 here in Athens. My special thanks to the European Wind Energy Association, which has shown great commitment, in organising this event, now for the fourth time. This Conference underlines once again the important place wind energy has in Europe: we are facing the challenge of giving energy supply in Europe an environmentally sound structure in the long term, and wind energy plays a key role here. This is and will remain a concern of the German government too.

Three weeks ago at the Global Ministerial Environment Forum in Dubai, Federal Environment Minister Sigmar Gabriel called for this century to be made "the age of energy innovation". Energy innovation – that included energy efficiency, energy saving and the use of renewable energies, which form the "fuel" for this new age. Renewable energies are already a cornerstone of the successful German climate protection policies. In 2005 the use of renewable energies led to savings of approximately 84 million tonnes CO₂ in Germany. Wind energy, Ladies and Gentlemen, is one of the "engines of innovation" in the "age of energy innovation".

Germany has contributed substantially to the development of this engine of innovation: at the end of last year a total of 17,574 wind turbines with a total capacity of 18,428 MW were installed in Germany. This corresponds to around 45% of the European wind energy capacity installed from Lisbon to Tallinn. Last year

1,808 MW of new wind energy capacity were installed in Germany. While this is around 11% less than the previous year, in 2005 exports clearly compensated manufacturers and suppliers for the decline in the domestic market. Last year, turnover in wind turbine manufacture in Germany covered a market volume of around €5 billion.

Wind energy in Germany now stands for innovation: over the past years German engineers have steadily improved the efficiency of installations, for example with better wing profiles and optimised control mechanisms. Capacity increases were also achieved with new generator concepts, while more robust components reduced maintenance costs. Today, three German wind turbine manufacturers are global pioneers in the development and production of wind turbines of the 5 MW class. Germany already has 10 turbines with a capacity of 5-6 MW.

Last year, in spite of unfavourable wind conditions, wind energy was the main contributor to electricity generation from renewables, with around 26.5 billion KWh. This is equivalent to a share of around 4.3% of total gross electricity consumption in Germany. For all renewable energies together, the share was 10.2%. Thus Germany is well within schedule to meet the renewables expansion targets for 2010 agreed at European level. Wind energy is a necessary component in achieving this, and at the same time helps to increase the security of Europe's electricity supply.

The expansion of renewable energies is therefore not only an economic factor for Europe. Renewable energies also benefit people! 75,000 people have found work – and thus a secure livelihood – in the European wind energy industry. The use of wind energy in multi-megawatt volumes is not restricted to industrialised countries. More and more, wind turbines are being erected in developing and newly developed countries – in India alone around 880 MW of wind energy capacity were installed in 2004. Renewable energies provide millions of people with access to electricity, thus enormously improving their living conditions and reducing poverty. The major plus point of renewables: the cost of generating 1 KWh of electricity is falling steadily.

Wind energy now costs only half of what it cost 10 to 15 years ago. Every year costs for wind energy drop by 4 to 7 %!

Conflicts over the distribution of energy resources will increase further in future. Because the price of fossil energies such as oil and gas will continue to rise, developing countries, which are already at a disadvantage, will barely be able to afford expensive energy imports any longer. This will stand in the way of their growth. The resulting tensions will fuel the global potential for conflict. Renewable energies offer a cost-effective alternative to this scenario – an alternative which can already be implemented. As a consequence, they contribute to preserving peace.

At international level therefore numerous efforts are being made to advance the use of renewables. The International Conference for Renewable Energies, renewables2004, and the political follow-up process accelerated the expansion of renewable energies throughout the world. The main outcome of the conference, the International Action Programme (IAP) covers nearly 200 actions and commitments from all regions of the world. Last November the first follow-up conference, BIREC 2005, took place in Beijing, with great success. BIREC emphasised the importance of cooperation between developing and developed countries in the global expansion of renewables and the need to develop a review mechanism for existing international commitments and initiatives. Also at BIREC the private sector, particularly the wind turbine manufactures, intensified their dialogue with key politicians.

One of the key follow-up activities to renewables2004 is the Renewable Energy Network for the 21st Century — REN21, involving governments, international organisations, industry – Arthouros Zervos is one of the vice chairpersons of the steering committee - , the scientific community and representatives of civil society. Germany supports the development and the work of REN21. At BIREC 2005, REN21 presented the first reliable survey of the expansion of renewable energies, "Renewables 2005: Global Status Report".

Ladies and Gentlemen,

At a European level it is pleasing to see the European Commission consistently pursuing the implementation of the 2001 directive promoting the generation of electricity from renewable energy sources in the electricity internal market. Its Communication of December 2005 revealed particularly positive effects in those countries which use feed-in tariff systems to secure a fixed fee for electricity from renewable energy sources – i.e. also from wind energy – especially in Germany, Spain and Denmark. The report moreover weakens the argument put forward by critics of feed-in systems that the costs of the promotion are too high: the Commission clearly established that in the case of wind energy, costs for electricity generation are higher in countries which use quotas and certificates to promote this energy source. Certificates provide less investment security than fixed feed-in tariffs and create higher costs through risk surcharges.

Having described the successes achieved in Europe in the utilisation of renewable energies, allow me to briefly consider what remains to be done for the further expansion of wind energy utilisation in Europe:

1. We must not rest on our laurels with regard to this initial success in wind energy expansion in the EU. The high investments in the expansion of wind energy more especially need long-term reliable framework conditions. We need a more long-term perspective than that provided by the current directive. As soon as possible, the EU must lay down expansion goals for renewable energies in the EU up to 2020. I call on the Commission to submit proposals for this before the end of this year. Germany would like to address this topic in its EU Presidency in the first half of 2007.
2. The great potential of future wind energy utilisation lies offshore. To enable offshore wind parks to become a reality soon, hurdles in the licensing procedure must be removed. It is a major success that in Germany 11 licences for offshore wind parks have already been granted, together covering a capacity of more than 3,300 MW. I would like to stress at this point that

licences can only be granted after the economic benefits have been weighed against the impacts on the marine environment.

3. The second major hurdle that we must overcome is the problem of grid integration for wind turbines. Especially relevant factors in this are non-discriminatory grid access for installations using renewable energy sources, enhancing grid transmission capacity and establishing intraday trading for electricity. These requirements were noted in November last year by the European Energy Ministers' Council in the *Copenhagen Strategy on Offshore Wind Power Development*. Together with our partners, Germany will carry this process forward in an EU policy workshop which we will hold at the beginning of 2007. One outcome of this workshop is expected to be an action plan for the expansion of offshore wind energy utilisation in Europe.

Why are these activities so important to me? Offshore wind energy utilisation still holds high potential for Europe which we can use relatively cheaply. In order to exploit this potential, however, greater efforts are still needed. In Germany offshore wind energy capacity will only increase significantly as of 2007/2008. By 2020 I expect 12,000 to 15,000 MW of installed offshore capacity. To achieve this, in 2004 we adopted the revised Renewable Energy Sources Act; we are thus pursuing a clear expansion strategy for offshore wind energy utilisation which takes account of the large coastal distances and water depths in Germany's exclusive economic zone. We are also accompanying this expansion with the German industry's foundation for offshore wind energy, established in 2005, which will erect the first offshore test field off the island of Borkum. In the foundation policy-makers and industry stakeholders work together. I expect this to trigger the entire German offshore development. Further momentum for an environmentally sound expansion is provided by transboundary cooperation, for example the joint declaration by Germany and Denmark on cooperation in the field of accompanying environmental research in wind energy utilisation in the North and Baltic Seas.

Onshore, where suitable areas are becoming rarer in Germany, the expansion potential lies in repowering – replacing existing wind energy turbines with new, higher capacity turbines. In Germany, installed onshore wind energy capacity can be expected to increase from 18,400 MW in 2005 to approximately 25,000 MW in 2020. Here too we see cooperation as the key: at the renewables2004 Conference in Bonn we initiated with our neighbour France the French-German Growth Initiative Project on Wind Energy. In future this will make an increasingly important contribution to the expansion of wind energy.

In Germany the dena grid study laid the basis for medium-term planning of electrical transmission grids for transferring wind energy from the north to the load centres in central and southern Germany. A follow-up study is being prepared and will deal with wind energy integration beyond 2015. Here too, efficiency is our approach – the efficient use of existing grids and plant technologies. We first want to review the potential for optimising existing grids with regard to integrating electricity from wind energy into the interconnected system. This potential includes improved forecasts for wind energy feed-in, the introduction of intraday trading and better use of grid capacity through line temperature monitoring. Storage technologies such as those used by a leading German wind turbine manufacturer in an autonomous system will also be part of a future energy supply. Against the background of an evolving balancing energy market and rising electricity prices, storage technologies are also becoming more important.

A sustainable energy supply bids farewell to the concept of "more and more, bigger and bigger" and instead aims to deliver energy services; alongside centralised electricity generation in environmentally sound large-scale power plants, our approach is based on decentralised utilisation and an intelligent combination of different energy sources such as renewables and combined heat-power generation.

We are on the brink of a fundamental change of course in energy policy. Conflicts, dependence and ecological crises will increase if today's extensive energy utilisation

continues to be pursued worldwide. Increasing the use of renewables presents an opportunity to actively counter this.

Let us concentrate our efforts and take best possible advantage of the potential and opportunities. In this spirit I would like to wish you a successful conference!