

Wind energy - a pillar of global energy policy

Growth - supply security - climate protection

Speaker: Juergen Trittin, Federal Minister for the Environment, Nature Conservation and Nuclear Safety of Germany

Occasion: World Wind Energy Conference

Beijing, 01.11.2004

Vice Minister Zhang Guobao,

Mr. Maegaard,

Mr. Dexin,

Mr. Rae,

Ladies and Gentlemen,

Wind energy is steadily expanding its share in energy supply. Many parties contribute to this. The World Wind Energy Conference is globally committed to increasing the use of wind energy. I would like to thank you, Mr. Maegaard, for this. And my special thanks to you, Vice Minister, and to our host country China, whose commitment to renewable energies is exemplary.

Wind energy sailing ahead

We can say today, here in the dynamic city of Beijing, that wind energy has achieved global take-off.

Since 1998 we have witnessed an unparalleled success story:

in 1998 around 10,000 MW were installed worldwide

At the end of 2003, over 40,000 MW

At the end of 2004 it will probably be over 50,000 MW and

nearly 100,000 MW are predicted by 2008.

This boom embraces both developed and newly industrialised countries.

Boom in Germany

Germany is the global leader in wind energy and holds second place in photovoltaics.

A total of around 16,000 MW of wind energy capacity are currently installed in Germany. In a normal year we generate around 28.5 billion KWh of electricity. Today, renewable energies contribute around 10% of electricity consumption - over two and a half times more than five years ago.

By 2020 we aim to produce 20% of our current electricity requirement from renewables.

To this end, we must also utilise the potential of wind at sea for wind energy. By 2010 we want to achieve 3,000 MW offshore. By 2025/30 we anticipate between 20,000 and 25,000 MW installed capacity - in depths of up to 40 m. These electricity volumes need to be integrated into the grid.

In Germany 50,000 people currently work in the wind energy sector. Overall, the renewables sector in Germany employs more than 120,000 people. Turnover of all branches of renewable energies now amounts to around € 10 billion.

Renewable energies avoid around 60 million t CO₂ emissions per year in Germany.

We owe and will continue to owe this rapid development primarily to the Renewable Energy Sources Act (EEG):

It guarantees for 20 years a specified minimum fee for electricity from renewable energies. It commits grid operators to the priority purchase of electricity from renewables. The costs of the higher feed-in rates are distributed among all electricity consumers. This costs an average family one euro per month.

France, Austria, Portugal, Spain and the Czech Republic have in the meantime introduced similar regulations on electricity feed-in and fees, or are preparing to do so. Systems with a guaranteed minimum fee allow rapid growth while offering electricity generation costs which compare favourably to other support systems. They appear to be the most effective instrument.

At present, more than 70% of all wind energy installations are in Europe. But many countries in Asia and in North and South America are now accelerating their expansion of wind energy.

Growth in China

Let us look at the example of China: In 2003, the People's Republic increased the expansion of wind energy by 46%. That is equivalent to almost 100 additional MW. China now has a total installed capacity of 571 MW. Germany will continue to do all in its power to support this development.

I understand that China is also discussing the introduction of an electricity feed act similar to the German Renewable Energy Sources Act.

In June 2004, China set itself the goal of generating 10% of its electricity from solar and wind energy and from small-scale hydropower plants by 2010.

In absolute figures this means: By 2010 China aims to install 60 GW - that is 60,000 MW - of additional capacity from renewable energies. This amount will be doubled again by 2020. This is an extremely ambitious target. It is four times today's installed capacity in Germany. It is ten times China's current nuclear capacity and 30 times that of the two nuclear power plant blocks now under construction.

With its admirable increase in the use of renewable energies, China is also making an important contribution to climate protection. Renewable energies and greater energy efficiency will enable a booming economy to satisfy its energy hunger sustainably.

The rapid increase in the use of wind energy has major advantages - not only for China. It is a classic win-win option.

Renewables create access to a modern energy supply. Thus, supply security is established for billions of people. Renewables make it possible to bring electricity to isolated regions as well. Wind energy enables such regions to develop, and creates employment opportunities outside the agriculture sector. This prevents rural exodus. Wind energy is one of the most dynamic and innovative growth markets. It also offers "old economy" sectors such as the steel and construction industry major opportunities. Companies which in the past built concrete shells for nuclear power stations today construct foundations and towers for state of the art offshore wind energy turbines. Even suppliers of nuclear technology are adapting: Siemens AG purchased Bonus Energy A/S, the second largest Danish wind turbine manufacturer. Siemens expects annual growth rates of 10%. Renewable energies make countries less dependent on oil imports and create supply security. This is an important factor for economically vibrant countries with a rapidly growing energy requirement. The crude oil price more than doubled this year, rising from \$ 25 to over \$ 50 per barrel. We have to expect permanently high oil prices. We must break away from oil. In many places wind energy can already compete with fossil fuels.

Global development and climate protection

Climate change threatens the very survival of poor societies. In rich societies it causes immeasurable damage.

The hurricanes of this storm season destroyed 90% of Georgetown, the capital of the small island state of Grenada. The foundation of its export - nutmeg - was swept up and washed away. In Florida, three hurricanes have caused over 25 billion dollars worth of damage in this year alone.

We must all work to ensure that the global temperature does not rise by more than 2 °C. We must take decisive action against climate change.

Russia's decision to ratify the Kyoto Protocol is the breakthrough for international climate protection. For the first time, there is an internationally binding ceiling on the emission of greenhouse gases. To combat climate change and transform global energy structures we depend on binding multilateral processes.

Kyoto is the necessary prerequisite for global climate protection. Now, climate protection must be given a long-term perspective.

More countries must avoid greenhouse gases. This applies in particular to the major per capita emitters - especially the USA. This is a matter of global and ecological justice. We need new targets up to 2030. Germany has proposed that the European Union commits itself to reducing its greenhouse gas emissions by at least 30 % by 2020. Germany would then commit to reducing its emissions by a total of 40% by 2020.

The Kyoto process will be a further boost to the increased use of renewable energies in North and South. It will give even greater impetus to wind energy expansion. Emissions trading and the clean development mechanism will increase the demand for renewable energies.

To support the increased use of renewables in North and South, the German Government hosted renewables 2004 in June this year. The Conference was a great success. At the beginning of June the price of crude oil rose unexpectedly to \$35 a barrel. At the time this was a shock. Today - with the price at \$ 50 per barrel - many companies and economies would now wish a return to that position.

At renewables2004 in Bonn, 3000 participants from 154 countries adopted a political declaration. In it, they share the vision of renewable energies becoming a most important widely available source of energy. The aim is to create access to renewable energies for one billion people by 2015. Otherwise it will not be possible to halve the number of poor people by this date - the target set by the international community in its Millennium Declaration of 2000.

In order to create access to renewables for one billion people, a comprehensive action programme was adopted. The International Action Programme of renewables2004 contains almost 200 commitments and actions by governments, international financial institutions, private business and civil society, aimed at increasing the use of renewable energies. The contributions came from every continent and were voluntary.

If all these measures are fully implemented, the International Action Programme alone will enable 1.2 billion t CO₂ to be avoided in 2015. Added to this are savings achieved through increased demand, because renewable energy installations will become cheaper.

At renewables2004 we agreed to review the implementation of the voluntary commitments under the International Action Programme in the framework of the Commission for Sustainable Development. We want the United Nations to monitor the implementation of our Action Programme.

Germany's goal and China's goal are equally a part of this. Without the increased use of wind energy, it will be impossible to achieve these goals. It is therefore a positive sign that this year's World Wind Energy Conference is taking place here in Beijing.

Wind energy is no longer a niche energy. Wind energy is a pillar of a modern energy policy.

Wind energy permits development, growth and employment.
Wind energy creates supply security.
Wind energy is indispensable for climate protection.

Each new wind park is visible proof that the age of renewable energies has begun.