Title: **Renewable Energy Development in Germany**

Speaker: Parliamentary State Secretary Astrid Klug

Occasion: International Grid-Connected Renewable Energy Forum

Date/Location: 01.02.2006, Mexico

Minister Canales Clariond,
Ms Sierra,
Mr Good,
Mr Zervos,
Ladies and Gentlemen,

Thank you very much for your invitation. The expansion of renewable energies is a focus of German environmental and energy policy. The main point I would like to make is that just as the previous government, also the **new government, which I'm representing, will stay committed**. We will continue our engagement for the expansion of renewable energies on a global scale, just as we will proceed with the successful national policies. I am therefore very pleased to speak at this conference on the development of renewable energies in Germany.

A modern energy supply follows the guiding objective of sustainable development. It combines security of supply, ability to compete and environmental compatibility. Renewable energies are particularly suited to fulfilling these criteria.

They ensure **climate protection**. The use of fossil energy sources oil, coal and gas have gives rise to harmful emissions causing major damage and costs, in particular climate change. Climate researchers all agree that global temperatures must not rise by more than 2 degrees Celsius compared to preindustrial levels. Warming by more than 2 degrees considerably increases the risk of irreversible and catastrophic damage.

Renewable energies **secure our energy supply** –also in the medium and long term. Fossil energies oil, coal and gas are not infinitely available. Oil and gas resources are concentrated in politically unstable regions. At the same time demand is rising. In particular newly industrialised countries such as China and India are recording rapid growth. Over the past months, prices for electricity, oil, gas and coal have shot upwards, at times dramatically.

Therefore, in common with many other countries worldwide - as can be seen from the great interest here – Germany has decided to **vigorously increase the use of renewables in all areas** of energy supply: in electricity, heat and fuels!

We have set ourselves **ambitious goals** for this: the German Government aims to increase the share of renewable energies in electricity consumption to 12.5% by 2010 and to at least 20% by 2020. By 2050, the aim is to cover around half of Germany's total energy supply with renewable energies.

The **development to date** shows that we can achieve these goals: at present we have a renewables' share of over 10 % in the **electricity sector**. It has doubled in only a few

years. This expansion momentum will continue and we think that we can even reach around 25% by 2020.

Ladies and Gentlemen,

In Germany, the most important instrument in the electricity sector is the **Renewable Energy Sources Act (EEG)**. Installation operators are guaranteed the purchase of their electricity with specified feed-in tariffs for around 20 years. Grid operators must purchase this electricity and pay for it according to the EEG. The costs are then passed on to the consumers. Through this system, **investment security** is created which is crucial for the expansion of renewable energies. An expert from my Ministry will present this system in more detail tomorrow.

The Renewable Energy Sources Act (EEG) is not only the most effective support for renewables, it is also the most **cost-efficient**. In countries with quota systems such as Great Britain and Italy, costs for wind energy are sometimes double the costs as in countries with feed-in tariffs (e.g. Spain, Germany). This was also communicated by the EU Commission end of 2005.

For this reason not only German wind turbines but also the Renewable Energy Sources Act (EEG) itself has become an export hit: today **16 of the 25 EU Member States and almost 40 countries worldwide** have a feed-in system.

In order to further optimise feed-in systems, the **Feed-In Cooperation**, initiated by Spain and Germany at the *renewables2004*-conference in Bonn, was started. The goals include promoting experience exchange between countries with feed-in systems and supporting other countries in the introduction and improvement of such systems.

Ladies and gentlemen,

The expansion of **renewable energies** must include all technologies: wind, hydropower biomass, solar and geothermal energy. This applies to electricity supply, to heat and cooling supply and to transport.

- Wind energy has taken on a pioneering role in the electricity sector. In the meantime over 18,000 megawatt of wind energy capacity have been installed in Germany.
- Hydropower ensures a constant flow of electricity and is thus still an important pillar for base load supply.
- Biomass is important for all three sectors: in the electricity market, the heating market and for fuels.
- The solar energy market is really hotting up – especially with regard to photovoltaics. An estimated 500 megawatt capacity was installed in Germany last year – more than ever before. This now puts Germany ahead even of Japan. In the field of Concentrating Solar power (CSP), our companies have developed high-class technology for use in sun-rich countries.

The need to invest in renewable energies is no longer seriously questioned. According to surveys, 81% of Germans want even more renewable energies. Acceptance is very high.

Ladies and gentlemen,

Renewable energies are already a cornerstone of the successful German **climate protection** policies. In 2005 the use of renewable energies led to savings of 80 million tonnes CO2 in Germany. This is more than the savings made by many countries under the Kyoto Protocol.

But renewable energies not only play an important role for climate protection and for security of energy supply. They are also a driving force behind jobs and exports. In Germany around 150,000 people now work directly or indirectly in the renewable energy sector. Renewables have generated a total turnover of around 12 billion euros per year.

Ladies and Gentlemen,

I would now like to present to you the second pillar of our renewable energy strategy: The **important international activities** which we have triggered.

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.

The successful implementation of the **International Action Programme** has major impacts on global climate and social development: in 2015, CO2 emissions should be reduced by 1.2 billion tonnes per year - this corresponds to around 5% of global emissions in the year 2015. The implementation of the International Action Programme brings about investments of around €300 billion and up to 300 million people would have access to electricity for the first time.

The Mexican government has made an important contribution to the Action Programme. Further important contributions are the announcements by the **World Bank** and the **GEF** that they would considerably strengthen their commitment in the field of renewable energies. I am delighted to see that GEF and the World Bank are underlining this intention with this top-level event.

At the beginning of November last year the first follow-up conference to *renewables2004*, the Beijing International Renewable Energy Conference (BIREC 2005), successfully took place, with 1300 participants from 100 countries. 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.

One of the key follow-up activities to *renewables2004* is the development of an international network for renewable energies, the **Renewable Energy Network for the 21st Century — REN21**, involving governments, international organisations, industry, 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 worldwide, **"Renewables 2005: Global Status Report"**. According to this report, one sixth of global primary energy consumed comes from renewables. Large-scale hydropower and traditional, less efficient biomass utilisation account for the lion's share of this. Nevertheless, small-scale hydropower plants, wind, solar, geothermal energy and

efficient biomass utilisation are rapidly catching up. Not only in the North but also in the South.

The **REN21 secretariate**, which will be provided by UNEP and the German GTZ, will begin its operation very soon, in February 2006 in Paris. REN21 has taken on the task of tracking the progress made in the implementation of the Bonn Action Programme and preparing information on this for the Commission for Sustainable Development (CSD). We are working towards the **upcoming sessions of CSD, which should decide on a meaningful review arrangement** for the global increase of renewables and the implementation of international, actions and commitments like the International Action Programme of Bonn and other initiatives on renewable energies and energy efficiency which have been launched since the 2002 World Summit on Sustainable Development in Johannesburg. I would like to invite all countries represented here, especially Mexico, to support this process, which will start this year in CSD 14 and will hopefully result in a operational outcome at CSD 15.

Today, REN21 proves that it is capable of actively addressing the challenge of strengthening the high-level political dialogue on renewable energies. REN21 is also present here at this event, with numerous of its participants and members of the steering committee taking part. I am happy to see that the Vice Chair of REN21, Arthouros Zervos, will be the next speaker.

To conclude, I would like to highlight the main points of my presentation:

- Firstly, German policy has created a strong expansion of renewable energy in Germany, particularly in the field of wind energy but also photovoltaics and biomass. The main driver for that has been the renewable energy sources act.
- Secondly, with the new government in place, the support for the further development of renewables will continue.

Ladies and Gentlemen, I wish this event every success. Thank you for your attention.