

How to promote renewable energy? German and European perspectives

Speech by Rolf Hempelmann, Member of the German Bundestag

Ladies and Gentlemen,

It is evident already that 2007 is shaping up to be a key year for both international and German climate and energy policy. Internationally as well as nationally we have completed an extremely intensive programme and formulated a number of ambitious climate targets. The European Commission's energy package, as well as the climate declaration issued at the G8 summit, are proof that this is a subject that is at the very top of the agenda not only nationally but in the international community too.

Climate change is a central challenge of the 21st century. There can no longer be any doubt that global warming is manmade and unstoppable. It may be too late for us even now to prevent the damage and costs that we must expect as a result of this. But if we act decisively, we can contain them to a considerable extent.

In April 2007 the Federal Government adopted a climate agenda for Germany, the declared aim of which is to cut greenhouse gas emissions by 40% by 2020. One part of this journey had already been mapped out by the Kyoto Protocol, in which Germany pledged to cut its greenhouse gas emissions by 21% with respect to the 1990 level. By 2006 we had achieved around 18%, which is equivalent to a saving of some 225 million tonnes of carbon dioxide.

In the light of the climate goals we have set ourselves in the international community, it is clear that in the coming years we will have to adjust our national energy policies very considerably to meet this challenge. The European Union has set a target of a 30% cut in CO₂, conditional on other countries following suit. At this year's summit in Heiligendamm, the heads of state and government of the G8 countries actually lent their support to a 50% reduction by the middle of the century. In plain language this equates for the industrialised countries such as Germany to a reduction of 60 to 80%.

There is no lack of acknowledgement of the need for climate protection at present. But what we must do now is identify the concrete measures we need to take to

achieve these targets – particularly with a view to the forthcoming post-Kyoto negotiations in Bali.

Recently the Federal Government agreed on the adoption of an integrated climate and energy programme. This comprises key elements and identifies some 30 associated detailed measures in the areas of energy generation, energy efficiency, transport and consumer behaviour, as well as estimated costs. The paper forms the basis for a comprehensive package of legislation which is to be agreed in cabinet and communicated to the Bundestag ahead of the climate change conference in Bali. The key elements relate to three approaches with which we hope to achieve our reduction targets: energy savings, better energy efficiency and a massive expansion of renewable energies.

I want to start with the last point and then move on to energy savings and efficiency. Expanding renewable energies through the use of state-of-the-art technologies is crucial to climate protection and security of supply. The most important engine powering this expansion is an instrument that we have been using and continuously updating for the past 16 years now and which many other countries of the world have borrowed: I refer to the Renewable Energy Sources Act (EEG) which regulates the feed-in of electricity from renewable energies to the grid.

The Renewable Energy Sources Act is a response to the EU Directive on the Promotion of Electricity produced from Renewable Energy Sources – this includes energy produced from biomass, wind power, solar power, hydropower and geothermal heat. Currently some 13% of electricity fed into the grid in Germany comes from renewable sources. We want to increase this figure to 25-30% by 2020. In the area of primary energy we want to achieve an increase from just 6% today to at least 16% (thus helping us meet the EU target of 20%). This is ambitious but it will be all the easier to achieve, the more able we are to further improve the efficiency of the support scheme.

The Renewable Energy Sources Act has four core elements. Firstly, it gives priority to the connection of electricity generation plants using renewable energies to the general electricity supply grid; secondly, it obliges grid operators to buy the electricity generated from renewables; thirdly, the fee paid by the grid operators for the electricity, based on costs, is set for a given period, usually 20 years, thus providing investment certainty; and fourthly, the differential cost resulting from the legislation

vis-à-vis conventionally procured electricity is passed on the final consumers. For new installations the annual rates of payment are degressive in order to fully exploit all cost reduction potential and help make electricity generation from renewable energies competitive.

Despite its success, the legislation requires constant updating. We are currently preparing an amendment to the Act in 2008. While the basic structure will remain the same, we need to regularly review it in terms of efficiency aspects and adjust the payment structure as well as the support period and the degression stages in line with current knowledge and understanding. We cannot allow a situation, for example, in which particular energy technologies receive too much support at the expense of other industries. The legislature will therefore have to examine whether the fees paid for photovoltaics can be further reduced to create scope for more support in other areas such as biomass or offshore windpower.

Our overriding goal here is to create self-supporting markets. By promoting investment in sustainable electricity generation technologies we want to ensure that renewable energies can compete with conventional forms of electricity generation. What we want to do is not to subsidise renewable energies on an ongoing basis but to help them stand on their own two feet in the market. True diversity of supply will contribute to our supply security. At the same time the expansion of renewable energies offers considerable opportunities for the German economy. Indeed, the sector has now developed into an engine for jobs. Because of Germany's position at the forefront of developments, German companies are highly competitive internationally in many areas of technology – exports already total several billion euro.

But I would like to come back to the Federal Government's programme, which concentrates on the proportion of renewable energies not only in electricity generation, but also in heat supply and in the mobility sector. The final energy demand for heat energy in Germany is double that for electricity. There is considerable potential for savings here; we talk about the "sleeping giant" in this context. We intend to increase the share of renewable energies used in heat generation from the current figure of 6% to 14% by 2020.

Around one quarter of energy is consumed in the transport sector. We therefore intend to continue on the course we set for the mobility sector in the Biofuel Quota

Act. This legislation requires the fuel industry to blend petrol and diesel with a given percentage of biofuels. We are committed to raising this quota to 20% by 2020. In this context we are preparing a sustainability ordinance which will provide safeguards to ensure that raw materials grown for biofuels are produced on a sustainable and environmentally compatible basis. It would certainly be unacceptable to promote biofuels under the banner of climate protection which were actually harmful to the climate in terms of CO₂ balance because of highly problematic production methods. The sustainability ordinance will therefore require that in order to qualify for the preferential tax treatment they currently enjoy, biofuels must be produced and used in a sustainable way. In addition, fuels with a favourable greenhouse gas balance will receive an advantage in the market over rival products.

Further cornerstones of our energy and climate policy are efficiency and energy savings. The buildings sector is one particular area where there is considerable potential in this respect – for example in the specification of minimum standards for heat and cold insulation. Alongside the climate protection aspects which exist in the regulatory framework governing new buildings, there will also be incentives to improve energy efficiency in existing buildings. Our CO₂ building renewal programme not only contains incentives to reduce harmful greenhouse gas emissions (poor insulation leading to overheating of houses, for example, increases emissions), it also provides stimulus for local value added and employment, as well as keeping down energy costs for consumers. This example alone shows that climate protection does not have to be a one-way street in terms of cost. Climate protection measures can stimulate growth in the economy and help keep down costs for consumers. Seen in this light climate protection is not only a challenge, it is also an opportunity.

Despite the rapid expansion of renewable energies, we will not be able for the time being to stop generating electricity from fossil energies. This applies, as I see, to the Philippines in the same way as it does to Germany, where the proportion of fossil energies in the energy mix is still very high. This is why the aspect of energy efficiency in particular is crucial. I believe therefore that as well as researching technologies in the area of renewable energies, we must also press on as quickly as possible with modernising our existing conventional power stations. Replacing old inefficient power stations will make a huge contribution to climate protection. In Germany, therefore, we have put in place conditions for the second period of EU-wide emissions trading which will penalise inefficient installations in favour of those meeting the best available technology standard. In a further important step, we are

promoting highly efficient technologies such as combined heat and power generation and low-CO2 technologies such as carbon capture and storage (CCS).

Looking at the whole picture, however, it is clear that ultimately the best strategy for cutting CO2 is to avoid unnecessary energy consumption. This is where consumers play an important role. Ultimately many emissions result from unnecessary use of energy. If consumers change their ideas – and this is entirely feasible as climate warming is becoming increasingly tangible and, in particular, energy prices are rising – they can achieve a lot by doing small things: replacing conventional light bulbs which waste energy with low-energy light bulbs, buying more fuel-efficient cars, installing intelligent heat insulation in their homes. In the medium term, as they stop wasting energy and switch to efficient household and electrical appliances, consumers will also notice a positive effect on their bank balances. It is in fact a fallacy that a higher standard of living necessarily means high energy consumption.

A supply-driven market alone will not alter consumer behaviour on a lasting basis. What is more important is to raise consumers' awareness of their own energy consumption. That is why we have plans to introduce smart measuring and metering equipment as part of our efficiency programme. Consumers will adopt energy-saving and cost-cutting habits only if they know how much energy they are consuming. It is also necessary, however, to have an appropriate regulatory framework (such as minimum efficiency standards in housebuilding), as well as investment incentives (such as support for integrating climate-friendly heating and cooling technology in buildings). We are also lobbying in the EU for dynamic and transparent efficiency standards for electrical appliances – similar to the Japanese top runner programme. As well as making a significant contribution to climate protection, such measures also help to create new markets and improve the competitiveness of our own products in the global market.

We can indeed seize this challenge as an opportunity. To pre-empt the discussion we are about to have, however, I would just like to say that we should not hope that there is one answer to climate change that will make us all happy. Every country must seek a solution that is appropriate to its own geographical conditions. I look forward now to hearing about energy strategies on the Philippines.

Thank you for your attention.