

Feed-in Tariff For Renewables

A stimulous package without public borrowing

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Speech at the 6th EU PV Industry Forum
Hamburg, 23. September 2009

Ladies and Gentlemen,

It is a great honour and pleasure for me to speak to you today about policies for fighting against economic crises, as well to protect the climate and to secure our energy supply.

The major crises confronting the world today – the global economic crisis, the climate crisis, the energy supply crisis, the wars over oil and the peace crises revolving around the desire for nuclear weapons capability – are all connected with the problems of our present energy supply system. It is not without reason that the outbreak of the financial crisis coincided

precisely with the temporary peak in the price of oil. Millions of homeowners in the United States were suddenly unable to meet the interest and principal payments on their toxic loans when their heating and gasoline costs more than trebled within just a few years.

For all of the aforementioned crises there is only one effective solution: A 100 percent conversion of our energy supply to renewable energies. Given the rapid pace of expansion of renewable energies, the possibility of a swift switch appears realistic. To accomplish this, however, it will become increasingly necessary to also resolve challenges to the integration of renewable energies into the power grid. Smart Grid systems are indispensable in a power supply network that builds entirely on renewable energies.

Stimulus packages that do not require the commitment of public financial resources are hardly receiving any attention in the public debate or even the policymaking process; measures of

this kind presuppose an incentive for investment from the private sector. By taking targeted regulatory measures on the markets, governments and parliaments can incentivise private investments and, in this way, put in place stimulus packages to invigorate the economy without incurring new debts.

Since 2000, the Renewable Energy Sources Act (EEG) has made it possible for a new sector of the economy to be built up in Germany: a renewable energies industry that is heavily dominated by small and medium-sized enterprises. And this has been done largely without public financial support. Statutory regulation has created hundreds of thousands of jobs without any new public debt being incurred, while actively promoting climate protection and laying the foundation stone for the provision of independent, clean energy supplies from domestic sources. The statutory regulatory measures that have been implemented are centred around the principle of feed-in tariff.

Renewable energies, especially solar power, are said to be too expensive, a burden for the economy, power sources that cannot grow fast enough to replace fossil and nuclear power.

All these arguments are wrong. Renewables stabilise the economy in Germany and help to solve the problems of economic crises; they create many new jobs and promote new investment. Renewables prevent high energy costs and are the most successful contribution to climate protection.

In 2000, the Members of the German Bundestag set a target in the Renewable Energy Sources Act for 12.5 percent of electricity to come from renewable sources by 2010. We were told that this target was unrealistic and unachievable. And yet today a 16 percent share had already been achieved.

This shows that renewables can grow much faster than is often assumed. What is crucial is the political framework, such as feed-in tariffs.

Renewable electricity is increasing at such a rate that worldwide electricity demand could be met by renewables within a few decades.

This is possible if effective legislation is implemented all over the world.

Prime evidence of the development of renewable energies is the rapid increase in the number of jobs in this industrial sector over the last few years. In 1998, only 30,000 people were employed in the renewable energies industry in Germany, just as many as in the nuclear power industry. By the end of 2008, the number of people employed in the renewable energies sector had increased to nearly 300,000. Experts expect that approximately 500,000 renewable energies jobs will be created by 2020.

Introduction costs for renewables are also minimal for power consumers. The additional cost of the electricity bill for a typical

household in Germany would be less than three euros per month.

In Germany, a new industry could be created within seven years with feed-in tariffs and other measures, such as research programs or facilitations in approvals.

Germany's experience is important if we look at the details of the world crisis.

Thus most economists, financial experts and governments were taken completely by surprise by the oil price hikes of recent years because they believed in the almost inexhaustible availability of resources, at least over the next several decades. Only a few who were in the know, like the Energy Watch Group (EWG) or the Association for the Study of Peak Oil and Gas (ASPO), warned of the impending oil crisis.

Scientific studies such as those from the Energy Watch Group paint a worrying picture, concluding that global oil extraction passed its peak in 2006.

No energy policy in the world is prepared for the now coming rapid drop in oil resources. And the problems are similar in the case of natural gas, coal and uranium. All conventional energy resources are limited and will lead to increasing economic and social problems in the years to come.

Ladies and Gentlemen,

The self-supporting, positive power of renewable energies has put them on course for undreamt-of success. All the forecasts of maximum possible growth rates have been surpassed by far.

If you compare the market development of photovoltaics in Germany, Japan and the United States, you can easily see how important functional laws are for technological development.

Thanks to the Renewable Energy Sources Act, Germany quickly closed the technological gap with Japan at the beginning of this decade and has now forged ahead.

There was no such legislation with feed-in tariff in the United States and Japan in the past, which is why no such market could be developed in those countries.

Ladies and Gentlemen,

the Renewable Energy Sources Act (EEG) that entered into force in Germany in 2000 was originally supported only by Social Democrats and Greens. It was enacted in the German Bundestag against the votes of Conservatives and Liberals.

But the further introduction of renewable energies also hinges on the ability of the political sector to quickly find and implement solutions for the integration of renewable energies into the power grid. The fluctuating feed-in from the large supply of wind and solar power is now already encountering integration

problems in the grid. It is often claimed that these problems can only be resolved if a certain share of the base load is generated by nuclear and coal-fired power plants. This is also the political rationale for demands by the CDU/CSU and the FDP for extension of the operating lives of nuclear power plants and by the SPD for the construction of new large coal-fired power plants.

The importance of political frame works were pointed out by two incidents last year. First, the flourishing Spanish market collapsed within months due to legislative errors and over-compensation of solar power. Last year the Spanish decided on a Cap System. To some extent Spanish lobby groups were responsible for that, because they asked for too much compensation and did not recognize the risk of financing solar power with tax-payers money. The result of the new Cap System was the collapse of the whole Spanish photovoltaic market.

Completely different was the outcome at the European level. Here the European Commission submitted a proposal which would have abolished all feed-in tariff systems in Europe. Had this proposal been realized, the PV market in Germany and other European countries would have collapsed as well – probably even worse than the Spanish market. The damage for the European economies would have been enormous.

However, the European Photovoltaic Industry Association EPIA and the European parliament were able to repel the proposal of the European Commission. Due to the excellent job of the reporter in European Parliament, the green parliamentarian Claude Turmes could prevent the imminent disaster of the European PV-market.

Both examples demonstrate how important optimal political framework are and how important the work is by association on national and international level.

It will be very important to defend now the German market also in the next years. Until other big markets will be created this will be of crucial importance for the development of photovoltaics. We did see after the last elections in Germany what can happen after a change in government. After the elections the biofuels got taxed and the market of pure biofuels was destroyed. It is for the German biofuel industry the same disaster, as the Spanish disaster for photovoltaics.

In the last years we could see many attacks in Germany on the EEG mainly by the conservative media. In the last weeks we got a new discussion – this time about cheap Chinese Modules and competitiveness of the German PV industry. We could read that the German PV-Industry were not competitive and would disappear in the next years. Therefore it would be silly to support photovoltaics. I personally reacted on this nonsense by press statements. But we have to be aware that this discussion is part of a preparation to reduce dramatically the PV-compensation by more than 30% after the elections in case we

will become conservative-liberal government. This would destroy the German market und thereby the world market.

I support every effort to reduce costs especially by technological innovation. Therefore we need by far more investment in research and development by the Governments and by the industry. I am looking with great interest on the developments in the United States which want to increase there budget dramatically. Unfortunately the present German government intends to do the contra dictionary and to reduce its budget for PV-Research by more than 20%.

The conservatives and the liberals concentrate on nuclear while the social democrats still want new coal power plants. They did not realize that Wind and Photovoltaic do not fit to inflexible big power stations which can not react very far on the grid fluctuations. If somebody wants a high share of wind and solar than he has to change to a compatible energy structure.

We must replace the inflexible base load power stations based on nuclear and coal to expand the renewables in Germany and elsewhere. We need flexible and adaptable power stations and new storage systems. The green fraction of the German parliament commissioned a grid study which was recently finished. The study provides new and promising details on how to integrate the growing renewable energy sector into the grid. Moreover the integration of huge amounts of electricity from North Africa is described in this study. This electricity could also be produced by big photovoltaic power plants. It is not limited to concentrated thermal solar power systems.

Ladies and Gentlemen,

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The fast growing business of wind energy, photovoltaic, biogas and geothermal energy are highly enjoyable. This development provides room to meet the challenges of the global financial, climate and energy crises.

I appreciate the fast growing renewable energy industries in China, India and USA. These markets now offer a challenge for the technological leadership of the European PV-industry. It is therefore essential to optimize our political frameworks in Germany and Europe. Besides the preservation and optimization of feed in laws it is necessary to open new capacities for feeding in electricity. This can only work if we seriously phase out nuclear and do not build new coal power plants.

It is indispensable for the world wide growth to create new markets. The latest Chinese program for the development of Renewables is an important milestone. Also the US-market seems to become stronger with the Obama administration. I welcome the activities in the US-Congress to introduce feed in tariffs according to the German EEG.

I will meet in October with Congress-members in Washington again to exchange experiences about the ideal feed-in-legislation. Already in April I presented a comprehensive paper which describes the political basics for the introduction of feed-

in-tariffs in Washington. If you are interested you can download the paper from my home page.

Ladies and Gentlemen,

The renewable energy industry has had a roaring period of growth in the last years. It became an important industry sector and is backing the Germany economy. The future role of renewables and especially photovoltaic is very important for the economic development. The EPIA study "Set for 2020" shows clearly, that a fast growth to 12 % electricity share in the EU by photovoltaic is possible and brings a lot economic benefits.

But the renewable energy sector has recognized that further growth is only possible if conventional power plants are being shut down. An extension of nuclear power and the construction of new coal power plants are incompatible to a further growth of Renewables. Therefore it could be very dangerous if political forces are elected in Germany next week that support coal and nuclear power.

To take climate protection serious and to become independent of expensive conventional energies, an accelerated growth of Renewables is indispensable.

Political stability is essential. All I can do is to appeal to you here at the PV SEC to recognize your own interest and to act accordingly, both, in economic and political issues.

This would be the best way for an active climate protection, for a secure power supply and an important contribution to combat economic crisis.

Thank you very much for your attention.