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Energy Commissioner

**The Commission's vision for  
renewables**

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Speech at the Euro case annual conference "How can Europe meet its 2020 renewables target?"

**London, 3 November 2008**

Good morning and thank you for this chance to set the scene for today's conference and recommend to you the "climate-energy" package proposed by the Commission earlier this year. It is a package that I believe is bold and ambitious, reasonable and balanced – and today I will expand on why this is the case.

### **Where will the RES come from?**

In January 2008 the Commission proposed a package of Directives that would implement its "20-20-20" targets: 20% renewable energy, 20% greenhouse gas emissions reductions, and 20% improvement in energy efficiency – all to be achieved in 2020. The Commission's analysis showed that these 20% targets are feasible on all fronts. But I'm going to focus on the renewable energy target. I must also add that, as part of the 20% renewable energy target, there is a 10% target for renewable energy in transport: this had already been agreed by the EU's Heads of Government. Clearly, the expansion of renewable energy will have to accelerate significantly across Europe, and not least in the UK. But it can be done.

Our analysis suggests how Europe might get there. We estimate that as much as 34% of electricity will be produced from renewable energy sources, of which 12% will probably come from wind. We will see strong growth from Combined Heat and Power installations using biomass. Solar, as we will hear later, will play its role – and we expect the costs of solar energy to decline by 50% by 2020<sup>1</sup>. Renewables in the heating sector could double to around 18%, using more biomass, efficient CHP and household heating. Renewables in the transport sector could also expand quite significantly by 2020, using both biofuels and electricity in vehicles. The technology-specific sessions later today will explore the prospects of these individual technologies and how they will contribute economically, as well as environmentally, towards reaching the renewables target.

### **Country examples**

My job is not to tell the UK how to meet its target. But I would like to use the opportunity today to tell you some of the good things we see in other Member States.

#### **Spain**

We hear about the variability of wind energy. Well, wind electricity in Spain provides about 10% of electricity on an average day, and on 18 April this year (a Friday – not a weekend) the contribution of wind reached 32% of Spain's power needs. Spain has managed to integrate wind energy into its network through a better grid management strategy (including forecasting) and investment in equipment. Spain is also pioneering the use of solar thermal power generation at the Abengoa plant near Seville.

#### **France**

France has a tidal energy project at Rance that has been supplying renewable electricity into the French national grid since 1967. Although modest in size, at 500 GWh a year – it does have the virtue of actually existing. Furthermore, it produces electricity at a cost of approximately 12 Euro-cents per KWh. I should mention here, that I recently visited the Severn Estuary to learn for myself what options were being examined for harnessing tidal power here in the UK.

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<sup>1</sup> Solar PV

## **Portugal**

Portugal too wants to invest more in marine energy, and has announced plans for 1 GW of capacity to be put in place within the next decade. Last September, Portugal inaugurated the world's first "wave farm", consisting of three wave energy converters, developed by the Scottish company Pelamis Wave Power. This "wave farm" has an installed capacity of 2.25MW, enough to meet the average electricity demand of more than 1,500 Portuguese homes. A second phase of the project is now planned to increase the installed capacity from 2.25MW to 21MW using a further 25 Pelamis machines.

## **Denmark**

Let us not forget that one of the ways of helping to meet the renewable energy targets is to reduce total energy use – in which case, the same amount of renewable energy production makes a higher proportion of the total. For example, about 75% of Denmark's district heating is produced in combined heat and power plants that generate both heat and electricity simultaneously, and 40% of this is without any CO2 emissions at all thanks mainly to the use of biomass. Basically, this CHP technology raises a 40% rate of efficiency to 90%, and so less fossil fuel is used and less CO2 produced. This illustrates nicely how the different targets (RES, GHG and energy-efficiency) are all linked.

## **Latvia**

Finally, a word about "the country I know best". I give this example because sometimes options are sitting there waiting to be discovered. Latvia has enormous under-exploited biomass potential. About 55% of the surface area of the country is covered by forests. A recent study presented to me suggests that between 33% and 60% of Latvia's total energy consumption could potentially be met by indigenous biomass. Coupled with hydro-power, this suggests that Latvia could potentially be almost carbon-free for its power and heating needs.

## **The Directive**

Following extensive discussions with stakeholders, we came forward with the legislative package in January 2008. Here, we strived to address all the problems that the renewable energy sector faces today:

First, there needs to be a stable policy regime: legally binding targets for each Member State would be fixed – differentiated according to their specific circumstances. These targets would set the goals. We also require Member States to prepare "National Action Plans" which spell out how they will reach the targets: we don't prescribe sectoral shares for electricity, or heating and cooling, but Member States will have to assess and determine for themselves where the growth will come from. They will also have to explain what the shares will be and what instruments will be used to ensure the targets are reached. In the meantime, the Directive sets an "indicative" trajectory that Member States will be expected to meet in order to show that they are "on track".

Second, there is need for flexibility in order to reach the targets in a cost-effective way. So, in addition to the flexibility of setting their own sectoral targets, Member States are free to decide on the instruments and measures to be used: it could be the on-going use of obligations on suppliers (such as with biofuels today), renewable energy obligations, or so-called "ROCs" in the UK context – in the electricity sector – perhaps together with feed in tariffs for novel or small scale technologies. It could include more support for household biomass heating or solar hot water systems... these are ideas that are being aired in the UK. Flexibility is also allowed between Member States. Member States may choose to undertake collaborative bilateral or multilateral projects, or transfer an over-achievement by one Member State to compensate for an under-achievement by another. All these options for flexibility lead to greater cost-effectiveness in meeting the targets.

We also modify the existing regime for electricity to ensure that electricity imported from third countries can count towards Member States' renewable energy targets: so Member States can invest in cheaper renewable energy sources within the EU and in neighbouring countries... helping to build biomass power plants in Albania or the Ukraine, for example, or solar plants in north Africa... These can be much more profitable investments, and so both parties benefit: we get cheaper renewable energy to count towards the target; they get new sustainable energy infrastructure.

Third, improvements need to be made to the administrative and planning regimes. As Commissioner I have found that there is not one Member State of the 27 where people are satisfied with the planning regime for renewable energy. There is not one Member State out of 27 where the administrative arrangements and procedures could not be simpler and clearer. The Directive aims to tackle this, and in so doing, have a direct impact on reducing the costs industry faces in developing renewables.

Fourth, we need to focus more attention on electricity grid access for renewable electricity: we already have a legal framework for this, but it doesn't appear to be strong enough, or its implementation adequate enough. Green electricity is going to have to grow substantially in order for us to reach our targets, and any aversion to decentralised or distributed generation, or concerns about intermittency, have to be overcome – as they HAVE been overcome in some countries (I already mentioned Spain).

Finally, given the wide debate on biofuels, our Proposal establishes tough but effective criteria to ensure that the biofuels used in Europe generate real greenhouse gas and other benefits – and indeed, lead the world in establishing strict criteria for biofuels sustainability.

So this is our Proposal. There are a range of obstacles facing the development of renewable energy in all Member States, and we have tried to address each of them. Since we published the proposed law in January, it has been working its way through the European legislative process. Discussions are now intensifying between the EU's 27 Energy Ministers in Council and Members of the European Parliament. Throughout all of this, I have continued to meet with Ministers myself – including UK Ministers John Hutton and Ed Miliband – to hear their concerns and to try and help address them.

We very much hope that the Council and European Parliament will agree this new framework by the end of this year.

As already mentioned, the renewables Directive is just part of package. Our efforts to improve the Emissions Trading System and to cut greenhouse gas emissions by 20% will clearly work in tandem.

Improving energy efficiency is still the most cost-effective means of reducing emissions – we already do a lot in this area – emissions standards for cars (currently being strengthened), labelling regimes, eco-design minimum efficiency standards, and energy efficiency codes for buildings. Action is being taken on all these fronts and will be strengthened in the coming year. In a matter of days, the Commission will publish its second Strategic Energy Review together with our plans for revising and improving key elements of our energy efficiency legislative framework.

So the Commission believes it has put forward a coherent package that will help all of us in Europe meet our energy and climate change goals – and importantly, help persuade *other* regions of the world to act.

## **Costs**

Let me now touch on the economic aspects of the energy and climate package and of the renewables Proposal in particular. To begin with, I should note that our analysis of the package suggests that the short term net financial and economic costs of the package will be very modest. There is clearly a direct cost of the policy, but it is relatively minor, and we believe that there is a clear medium-term gain.

For the UK, we estimate the costs as being up to about 0.41% of GDP, or a little under £1 billion a year by 2020. This compares favourably with the billions of pounds used in the UK's banking rescue package. Even compared with the normal "business as usual" energy investments that are needed to replace aging power plants and infrastructure, the quantities are relatively small and the overall gains clearly significant and worthwhile.

## **Economic crisis**

All of which brings me to my final point: there are those who are saying that we can no longer afford such a package.

In response, I would say that there are a range of safeguards already in the package to address the issues: energy intensive industries and internationally exposed sectors can be protected - we have a framework for that. The auction revenues raised by auctioning in the Emissions Trading Scheme will provide a huge source of revenues that governments can use to soften the economic burdens. I would even say that EU companies face less uncertainty in terms of carbon constraint than many of their competitors in the US, in Japan, or in other industrialised countries. But more importantly, it is time to realise that we don't have a long-term choice about developing a low carbon economy. Climate change, vulnerability to high fossil fuel prices and energy security mean that we must not let current market turmoil distract us.

## **Conclusion**

So my message today is that we have a very clear vision of how the renewable energy targets will be met – and I welcome the UK Government's fleshing out of its own ideas in the Consultation document launched by the Prime Minister last June.

The sessions later this morning will explore the technologies that will help us meet our objectives and the ways in which the growth of renewable energy can be encouraged. These are important issues and I wish you a successful conference.

Thank you for listening.