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Offshore wind energy – a climate-friendly power system

Check Against Delivery
Seul le texte prononcé fait foi
Es gilt das gesprochene Wort

Speech at the European Offshore Wind Conference 2009

Stockholm, 14 September 2009

Ministers, Ladies and Gentlemen,

It is a pleasure for me to be with you here at the 2009 edition of the European Offshore Wind Conference. Not only is Stockholm a beautiful venue for such an event, it also seems a very appropriate choice for the occasion given the city's close relationship with the sea.

The Swedish government has huge responsibilities this autumn. As the Presidency of the EU, one of its key tasks will be coordinating the EU's efforts to securing an ambitious, fair and truly global climate agreement at the UN summit on climate change in Copenhagen next December. Neither Sweden nor the EU is able to guarantee a successful outcome, of course. The whole world must be ready to contribute to a successful outcome. Lots of political will, careful preparation and hard work will be required.

Why do I start with that? Well because I think any discussion of offshore wind should have as one of its starting points the challenge of climate change. As you know, it is now widely accepted that developed countries by 2050 will have to make very significant cuts in their greenhouse gas emissions, in the order of 80%, if we are to have a chance of limiting climate change to a manageable level. In practice this means that in the course of the next three to four decades our electricity generation system needs to become carbon neutral.

In that context the winds over Europe's seas represent a vast, indigenous resource of clean energy. The European Environment Agency recently published a study of the wind energy potentials in Europe. The Agency estimated that the economic potential for energy production from offshore wind is more than 3000 TWh in 2030, or almost 80% of expected EU electricity consumption by then. This estimate, even made on a conservative basis, such as not assuming any production from waters with a depth of more than 50 metres, underlines how much potential offshore wind has.

In other words, offshore wind can deliver a critical contribution to a more climate-friendly power system.

In addition, of course, offshore wind energy can make a significant contribution to improving security of energy supplies in Europe, and to creating jobs and generating economic development. Earlier this year the Commission published a study on the economic and employment impacts of renewable energy. The study shows that the sector is already very important in terms of employment and value-added. New industries with a strong lead market potential have been created, which contribute about 0.6% to total GDP and employment in Europe. This development is likely to be accelerated as current policies are improved in order to reach the agreed target of 20% RES in Europe by 2020. By then, renewable energy could well give jobs to more than 2,8 million citizens in Europe, and that is only with moderate expectations as regards exports to other countries.

Wind energy will be a key part of this – for each MW installed around 7,5 jobs are created directly in the wind industry, and some estimates suggest the total effect is roughly twice that. Offshore wind will be a growing part of that – a European Wind Energy Association study from January suggests that by 2025 offshore could well take over as the dominant source of jobs for employment in the wind industry, with almost 200.000 jobs.

The opportunities that offshore wind represents, not least for coastal communities, are impressive. Offshore wind has started to become the substitute industry for a declining shipbuilding sector. Just last month, it was announced that one of the biggest shipyards in Denmark, where more than 3000 people work, will stop making ships once the current orders have been delivered in a few years time. While some other activities will continue, hundreds, if not thousands, face unemployment. Fortunately, it is now being considered to convert the place into a research and production facility for renewable energy which could not only avoid or mitigate the job losses, but would also strengthen further the already strong EU position on offshore wind and maybe other renewable energy technologies. For more examples, look at what offshore wind has already done to places like Cuxhaven and Bremerhaven in Northern Germany, or to some ports in the UK (such as Felixstowe, Lowestoft and Belfast).

I know that there are some who remain sceptical about offshore wind. Perhaps because they have personal experience with the technical, economic or other administrative challenges of building and operating an offshore wind farm. Perhaps because the profitability and risk profile seems less attractive than for the "safer" and simpler onshore alternative. Perhaps because there has been talk about a future boom in offshore wind for more than a decade now, and it somehow seems to remain something "yet to happen".

For the benefit of those people who might have doubts, allow me to repeat two points that I also made in my speech at EWEA's wind conference in Marseille in March this year:

The first one is my confidence in the wind industry in general, even in times of economic difficulties: *if* there is a sector which has the fundamentals on its side, I would think it *is* the wind sector. While there is uncertainty about many things, two things appear fairly certain: electricity demand is likely to continue to increase in the coming decades, and the need to address climate change will impose ever tougher constraints on how that electricity is produced.

Secondly, one of the key challenges in the future development of renewable energies will be social acceptance: as the number of installations multiply, so will the number of conflicts and cases where resistance from local communities prevent projects from going forward. We must work hard to make communities see the bigger picture and to preserve, or even improve, the positive image that citizens generally have of renewable energies. It will not be easy. In fact, I think the "not-in-my-back-yard" phenomenon may prove to be the biggest challenge to the 2020 targets. Offshore wind farms also meet resistance, and the seas are not as free of competing activities as many believe, but in most cases the conflicts are manageable and the projects less likely to fall victim of local political reservations.

Combine these two elements – climate change and social acceptance – and you have one very clear conclusion: we will need offshore wind energy to deliver our energy and climate policy targets.

In the countries or regions where there is a potential, but where policymakers have not yet come to this conclusion, I am sure they eventually will. The political and socio-economic benefits of this technology are simply too significant. That in turn means that the sector can count on sustained and even increasing political support as we go forward. This of course is important for potential investors, whether it is in wind farm projects or in expanding the supply chain capacity by ordering new manufacturing facilities, cable laying or installation vessels, etc.

You may also have seen news reports last week about the UK oil and gas company *Ramco Energy*, which has decided upon a radical shift of strategy to focus on offshore wind power. The company, which is going to change its name to *SeaEnergy*, will become the only company listed on the UK's Alternative Investment Market that is purely focused on offshore wind.

The first of many, I hope.

At EU level, this genuine political commitment to offshore wind is relatively new but – I hope you will agree - very robustly demonstrated during the mandate of the current European Commission:

Late last year the Commission adopted its first ever Communication specifically on offshore wind energy, and in the second Strategic Energy Review committed itself to play an active role in facilitating the development of an offshore grid in the North Sea.

In May 2009 agreement was reached on a financial support programme in the context of the Economic Recovery Plan for Europe which allocated € 565 million from the EU budgets for 2009 and 2010 to offshore wind related projects. There was a very positive response to the call for proposals carried out this summer: numerous good and mature projects were received and it is expected that it will be possible to commit the entire budget to around 10 projects which, in total will represent more than € 4 billion worth of investment. This is the beginning of what I believe will be a significant scaling-up of financial resources dedicated to low-carbon energy technologies. Increased funding is an important pre-condition for boosting innovation related to offshore wind, so as to further reduce costs and maintain Europe's global leadership in this field

These projects financed by the European Economic Recovery Plan should be seen as a first step in the implementation of European Wind Industrial Initiative that was set out in the Commission's Strategic Energy Technology Plan. In the coming weeks, a technology roadmap for the Initiative will be published as part of the announced Communication on Financing Low Carbon Technologies.

In July, the European Investment Bank granted € 300 million to finance the BELWIND project in Belgium. It is the first time that the EIB has assumed project finance risk for an offshore wind farm, and another sign of growing confidence in this sector.

That said, we know of course that there are still significant challenges ahead.

We know that financing offshore projects, especially the large ones, remains difficult – in part because of the sheer scale of the individual projects. We know that some Member States with significant offshore wind potentials are yet to put in place specific support mechanisms. Until they do so, the viability of projects will, of course, remain a real issue. On this second point, I hope and trust that these Member States will address this problem when developing their National Renewable Energy Action Plans, that must be submitted to the European Commission by June next year under the new Directive on renewable energy. It is obvious that there is a need to differentiate support between different renewable energy forms, and that, for the foreseeable future, an extra incentive will be required to convince investors when it comes to offshore wind energy.

The issue of grid integration and accommodation of larger quantities of variable generation is also tricky, but I can assure you that many people across the continent are now thinking about this. The issue is also firmly on the radar screen in Brussels. By way of example, some of the projects which will receive support under the Recovery Plan that I mentioned before will address aspects of this challenge, and will hopefully demonstrate new and innovative solutions.

Challenges are there to be overcome, and, more than many others, the offshore wind sector has proven itself capable of doing just that. Let me conclude by illustrating this point with a little anecdote: last week the Commission's audio-visual service re-issued from its archives the first ever documentary on energy policy produced by the Commission's own audio-visual services¹. Shot in 1981 at the height of the second oil crisis, a key focus of the policy at that time was to push the EU electricity generation system away from oil, towards coal and nuclear, but also – in the longer term – to alternative energy sources. A number of solutions were put forward in the film, among which solar energy was presented as the most promising. Both Concentrated Solar Thermal Power and biofuel production from algae were mentioned. Almost three decades later, these two technologies are still considered promising – but have not yet seen much in terms of deployment. In contrast, offshore wind was not mentioned in the 1981 video – and yet today, the capacity in operation is counted in Gigawatts. This sector has proved that it can make things happen. I for one am very confident that it will continue surprising the sceptics in the next decade or two.

Thank you for listening.

¹ http://ec.europa.eu/avservices/download/video_download_en.cfm?prodid=631&name=I000205INT1.rm&type=3&src=1