

Mind the gap



Photo: istock

Why is EU energy policy post-2020 an issue?

It's 2011, just nine years away from 2020 when the EU's main climate change and renewable energy legislation expires. Right now – with the EU's 2020 goals to increase the share of renewable energy in the overall energy mix to 20% and to cut carbon emissions by 20% – the EU is leading the world in terms of renewable energy deployment, exports and promotion.

Today, because the EU has been ahead of the game in renewable energy, Europe gets approximately 20% of its electricity from renewable energy sources, including 5.3% from wind energy. That share will increase up to 2020 when, under the terms of the EU's renewable energy directive which sets legally binding targets for renewable energy in Europe, 34% of the EU's total electricity consumption will come from renewable

energy sources, with wind energy accounting for 14%.

But how will we keep our leadership, retain our competitive edge, and keep cutting emissions from the power sector whilst continuing to create thousands of green jobs and billions of Euros in export revenue? Will decision-makers leave the EU in a policy vacuum post-2020?

The road to 2050

In 2009 European leaders committed to cutting carbon emissions in the EU by 80-95% by 2050 in order to keep dangerous climate change in check. However, after 2020 there is a gap of 30 years with very little policy guidance so far. Investors and planners need medium-term signals in order to carry-on investing in the solutions that are already fighting climate change, like wind

energy, that will allow us to meet the 2050 target.

Investors need the EU to put in place a framework with targets that take us up to 2050. This may seem like a long time ahead but it is only one investment cycle away. Moreover, due to the long lifetime of fossil fuel power plants (35-45 years for coal and 30-35 years for gas), the commitment by Heads of State means that no new carbon-emitting plants should be built after 2015 if we are to meet our 2050 greenhouse gas commitments.

This means that decision makers must act now. They need to decide during the current European Commission and Parliament – that is, by the end of 2014 – on a new and visionary legal framework for the power sector. They need to set new, binding renewable energy targets for 2030.

What needs to be decided?

A binding renewable energy target for 2030

The EU's 20% renewable energy target by 2020 is proving to be a success by driving growth in renewables. We need to repeat that success. A binding 2030 renewable energy target should be set. This would give the power sector a vital stepping stone, taking it from an expected 34% renewable electricity in 2020 to 100% renewables by 2050. The European Renewable Energy Council has called for this target to be set at 45%; EWEA backs that call.

A 30% domestic emissions cut by 2020

Europe needs to cut its domestic greenhouse gas emissions by 30% by 2020 compared to 1990 levels. A tougher target – the current target is 20% – would boost green growth, create sustainable jobs

and slow down climate change. By 2009 we had already managed to reduce emissions by 17%, but we can go much further.

Carbon cutting targets for 2030, 2040 and 2050

EU leaders have agreed that greenhouse gases must fall by 80-95% by 2050, but we need intermediary steps to help us get there. A target of 30% domestic greenhouse gas reductions by 2020, followed by further reduction targets for 2030 and 2040 would provide the necessary stability and predictability to provide a strong political signal of the future direction and keep Europe on the green track.

An Emissions Performance Standard

The most effective and technology-neutral way

of ensuring a carbon-free power sector by 2050 would be to ban carbon emissions from new power plants installed after 2015. This could be achieved with a binding Emissions Performance Standard on all new power plants after 2015. Given the challenge of developing a sufficiently flexible electricity system, the EPS could alternatively be set at around 350g CO₂/kWh in 2015, equivalent to the emissions of a new gas plant.

What can this achieve?

By 2050 the EU could be powered 100% on renewable electricity, with wind power accounting for 50% of that.



“A 45% renewable energy target for 2030 needs to be agreed”

Josche Muth

Deputy Secretary General, European Renewable Energy Council

“We’ve known for decades that fossil fuel prices go up. On the other hand we have the certainty that renewable energy costs go down.”

“Between 2005 and 2010 the newly installed capacity of 45 GW of wind already reduced emissions

by about 80 million tonnes. So renewables reduce emissions, and we don’t have any time for trial and error of strategy. You have to use the instruments that have proved to be successful.”

“We have the agreement by Heads of States’ to

reduce greenhouse gases by 80-95% but this is a target which is in 2050, this is a long way. What you need are milestones that need to be agreed and there we really see the need for a binding renewable energy target of 45%.”

“Investors are ready to put their money into renewables”



Niels Ladefoged

Member of the Cabinet of Commissioner Hedegaard, Climate Action

“We know that investors are ready to put their money into energy infrastructure, into renewables, but they want clear signals from policy mak-

ers. 2020 is not enough. Clearly we must start thinking beyond that.”

“To get a head start in the transition to a low-

carbon future, it’s so important that we give a clear vision to the energy sector, including the grid operators and the grid investors.”



“There is not enough investment in the energy system”

Folker Franz

Industrial Affairs Director, BUSINESS EUROPE

“When are we ready to come up with a 2030 framework, such as in 2007 when the Commission came up with a ground-breaking energy

package? The earlier we come out with it, the better because that increases certainty.”

“There are not enough investments happening in

Europe in the energy system.”

“We don’t have the right situation that pushes market actors to invest in grids.”

“Fukushima very much changes the prospects for wind energy”



Fiona Harvey

Journalist, The Guardian

“We’ve had the tragic incident of the Fukushima plant in Japan. As a consequence of that we’ve

had some very dramatic changes in energy policy around the world...this very much changes the

prospects for wind energy.”



“When are we going to open the political debate for 2030 targets?”

Claude Turmes

MEP, Group of the Greens/European Free Alliance

“When are we opening the political debate for 2030 targets? If we do, then of course we will

stick to the 2020 logic which is a binding greenhouse gas target, plus a stronger and binding

target for efficiency, plus a stand alone binding renewable target.”

Voicing their support

Arthouros Zervos, President of the European Wind Energy Association:

“EU energy policy needs to be geared up to reach the Heads of State commitment of reducing greenhouse gas emissions by 80-95%. What’s more, to keep its pole position in terms of competitiveness, we need a legally binding target for renewables of 45% by 2030 as this would make up a clear signal for investors and unlock crucial private investments.”

José Manuel Barroso, President of the European Commission:

“The renewable sector faces its most important test in the coming decade. That of moving from an alternative source of energy into the primary source of energy supply. I believe that is going to happen.”

“Increasing the use of renewables is central to building a new economic model. Over the last five years we have created 300,000 new jobs on our continent by actively developing the renewable energy sector. If we continue at this pace, this could mount to 1.5 million jobs by 2020, locking in a virtuous circle.”

“Renewable energy is neither a luxury nor a distraction. Investing in the right renewable research, infrastructure and regulatory environment is core business for the EU.”

Günther Oettinger, European Commissioner for Energy:

“Since 2050 is quite some time away, if we are to continue to promote a

stable framework for the growth of renewable energy, we must start to consider the renewable energy targets we need for 2030. The renewable energy industry has already called for 45%.”

Connie Hedegaard, European Commissioner for Climate Action:

“We need to start the transition towards a competitive low carbon economy now... the longer we wait, the higher the cost will be. As oil prices keep rising, Europe is paying more every year for its energy bill and becoming more vulnerable to price shocks.”

“The low carbon economy can be built by further developing proven technologies that exist already today.”

“When we talk about the electricity sector, not the total energy consumption, but electricity, then I think by 2050 we’ll have 100% renewables in Europe. I think that is perfectly doable.”

“[It is] high time to start discussing a 2030 renewable energy target [in order to] provide the [renewables] sector and investors with predictability.”

Sandrine Dixson-Declève, EU Director, The Cambridge Programme for Sustainability Leadership:

“Business leaders... are convinced that more ambitious short and medium term targets are essential to help drive up the carbon price and incentivize the low carbon investments needed to both reach the EU’s climate goals and exit the recession.”



Julian Scola, Communication Director, EWEA:

“As question marks grow over the future of oil and nuclear, renewable energy is ever more widely perceived as the solution, and the forthcoming EU energy roadmap and draft grid legislation take on new importance.”

Rudi Anschober, Regional Minister for Energy of Upper Austria:

“By 2030 Upper Austria will cover 100% of its electricity demand from

renewable energy sources. Regions are going ahead and putting in place the measures on the ground to make Europe take a truly sustainable pathway, Brussels needs to follow our example and catch up!”

Gerhard Stryi-Hipp, President of the Renewable Heat and Cooling Technology Platform:

“If we are serious about moving towards a truly sustainable energy system in the EU, renewables need to be boosted and a target for the next decade would do just that.”

Timeline on renewable energy legislation:

1997: European Commission publishes a white paper setting out a strategy for achieving a 12% share of renewables in the EU’s energy mix.

2001: 21% non-binding target adopted in a directive on the promotion of electricity from renewable sources as part of the EU’s measures to deliver on commitments made under the Kyoto Protocol.

2007: Commission publishes Renewable Energy Roadmap calling for a binding target of a 20% share of renewable energy in the overall mix

by 2020. Target agreed in the same year by EU leaders.

2008: Commission publishes Renewable Energy Directive setting individual renewable energy targets for all member states.

2009: European Union adopts the Renewable Energy Directive.

2010: EU Member States outline National Renewable Energy Action plans detailing how they will increase their renewable energy contribution by 2020.

March 2011: European Commission publishes communication on the EU’s Low Carbon Roadmap for 2050. It states that a 93-99% cut in CO₂ emissions in the power sector by 2050 is essential.

May 2011: European Renewable Energy Council launches its call for a 45% binding target for renewable energy by 2030.

June 2011: European Commissioner for Climate Action, Connie Hedegaard, and European Commissioner for Energy, Günther Oettinger, indi-

cate support for a 2030 renewable energy target.

What’s next?

Autumn 2011: European Commission will publish its 2050 Energy Roadmap.

2014: End of the current European Commission and Parliament by which we need to have a 2030 target in place.

A higher goal

Did you know that the wind power industry is expanding so fast that both EWEA and the European Commission have consistently underestimated the future wind power capacity they expect to be installed?

In 1997 the Commission set a non-binding goal of 40 GW of wind power by 2010. The 40 GW was reached five years early, and by 2010 the target was exceeded by more than double: by the end of 2010 there were 84.3 GW of wind power in Europe, providing 5.3% of EU power demand.

In 2003 EWEA set targets of 75 GW of wind power capacity by 2010 and 180 GW by 2020, which was before the European Union expanded to include central and eastern European countries. Following the admission of Romania and Bulgaria in 2007, EWEA increased its targets. This time it expected 80 GW by 2010, 180 GW by 2020 and 300 GW by 2030.

In 2007, the EU agreed a target of a 20% share of renewable energy in the EU's overall supply by 2020, leading EWEA to once again raise its 2020 and 2030 targets to 230 GW and 400 GW respectively. Given the sector's track record, we're confident these targets will be met. In August, EWEA released a report, 'Pure Power', containing its scenarios for onshore and offshore wind power deployment in the EU, ahead of the European Commission's Energy Roadmap 2050, due to be published later this year.

According to 'Pure Power', electricity production from wind power is expected to increase from 182 Terawatt hours (TWh) or 5.5% of the total EU demand in 2010, to 581 TWh or 15.7% of the total demand in 2020.

By 2020 the electricity production from wind energy will be equivalent to the total electricity consumption of all households in France, Germany, Poland, Spain and the United Kingdom together.

By 2030 1,154 TWh (28% of total demand) would be produced by wind power, more than the EU's predicted 241 million private households are expected to consume in 2030. Today, wind power produces electricity equivalent to the consumption of 50 million average EU households.

With this amount of wind power in place, Europe would be on the path to having 100% renewable electricity by 2050 with wind power contributing 50% of this.

What else do renewables need to keep on growing?

- Investment in the electricity infrastructure that will deliver power from onshore and offshore wind farms and other forms of renewable energy to consumers.
- A single EU electricity market that allows all power technologies to compete on a fair basis.
- Investment in research to develop even more efficient and better adapted wind turbines and other renewable technologies of the future.

Wind power installed in Europe by end of 2010 (cumulative)

European Union: 84,324 MW
 Candidate Countries: 1,418 MW
 EFTA: 478 MW
 Total Europe: 86,321 MW

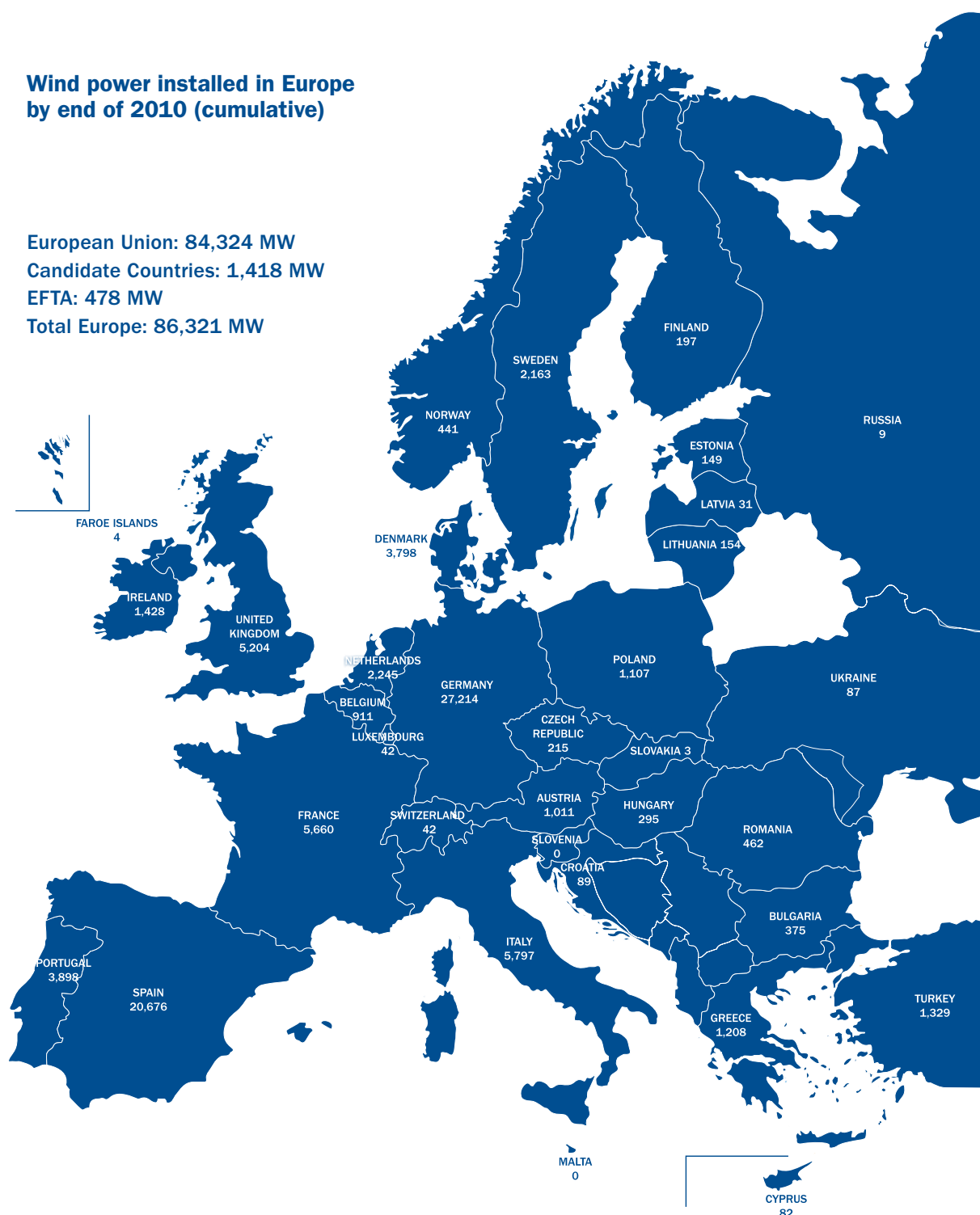


Photo: ACCIONA-J.Campos_Boira

About EWEA

EWEA is the voice of the wind industry, actively promoting wind power in Europe and worldwide. It has over 700 members from almost 60 countries, including wind turbine manufacturers with a leading share of the world wind power market, plus component suppliers, research institutes, national wind and renewables associations, developers, contractors, electricity providers, finance and insurance companies, and consultants. This combined strength makes EWEA the world's largest and most powerful wind energy network.

Tel: +32 2 213 1811 - Fax: +32 2 213 1890 - E-mail: ewea@ewea.org - www.ewea.org