## emissions out 30%

A European Wind Energy Association publication

### www.ewea.org/freshai

### Moving to 30% emissions cuts



Europe needs to cut its greenhouse gas emissions by 30% by 2020 compared to 1990 levels to boost economic growth, maintain its technology leadership and keep climate change in check.

The current target - a 20% cut - has become easy to meet because of the recession: we have already reached 17%.

A 30% cut by 2020 is a crucial first step to the 80-95% emissions cut by 2050 agreed by the Heads of State, essential in industrialised countries to avoid the global temperature rise of 2°C or more that would have catastrophic climate impacts. What is more, a 30% cut is essential if Europe is to maintain its leadership in renewable energy technologies like wind energy, create new

jobs and become more competitive, and not lose ground to other countries.

Rather than relaxing its climate ambitions as the international climate negotiations seem to make little headway, the EU must put Europe's economic interests first and move to a 30% emissions reduction target.

### A wind of change

Wind energy can play a crucial role in helping meet a 30% target. While the fossil fuels traditionally used in the electricity sector produce lots of  ${\rm CO}_2$ , wind energy produces no greenhouse gases, and can be deployed and begin reducing emissions immediately.

And because wind turbines do not consume fuel and their operation and maintenance expenses are low, the marginal cost of wind power is minimal. Therefore, an increase in the amount of wind power in the electricity mix means that more expensive and polluting technologies (oil, coal and gas) are pushed out of the market, avoiding more CO<sub>2</sub> and bringing electricity prices down.

Wind energy is already fighting climate change: in 2009, wind power in the EU avoided the emission of 106 million tonnes (Mt) of  ${\rm CO}_2$ .

In 2020, 230 GW of wind energy in Europe will avoid the emission of 333 million tonnes of  ${\rm CO_2}$  per year, 29% of the 20% emissions reduction target, or 19% of a 30% emissions reduction target.

### **Costs and benefits**

The benefits of a move to 30% outweigh the costs. The International Energy Agency has stated that "every year of delayed investment in more low-carbon sources adds €300-400 billion to the price tag". Remaining at 20% results in a much higher, more expensive reduction effort post-2020.

### The costs

• Due to the economic recession the absolute cost of meeting the 20% target has gone down from €70 billion to €48 billion per year in 2020, or 0.32% of GDP, according to the European Commission.

•The cost of reaching a 30% target is now estimated at €81 billion per year in 2020, just €11 billion higher than the price tag for the 20% target two years ago.

### The benefits

- Investing in renewable energy will create wealth and jobs in the EU, especially if using technologies like wind power manufactured locally.
- •GDP would grow by 0.6% more.
- •There would be a net job creation of 1 million.

- Energy security would improve and €40 billion could be saved in oil and gas imports in the year 2020.
- •There would be health and financial benefits from lower pollution of €12.6-22 billion per year.
- It would allow the EU to meet the IPCC's scientific advice that by 2020 industrialised nations must have reduced their emissions by 25%-40% to give us a 50% chance of avoiding dangerous climate change, a 2°C temperature rise.





## "Europe has a selfish interest in being ambitious"

Connie Hedegaard EU Climate Action Commissioner

"Yes there are the international negotiations. Yes there is conditionality. But there is also Europe's own selfish interest in being ambitious in the field of climate [...] This is about growth, innovation and job creation. I'm afraid we're getting too complacent in Eu-

rope because, although many parties are moving slowly in the international negotiations, they are not necessarily moving slowly in reality.

"Ten years ago China was more or less non-existent when it came to global wind politics. Today, China has three wind manufactures in the global top ten, and 30% of all wind turbines being put up this year come from China.

"We could lose jobs in Europe if we are not ambitious enough, because

others are moving fast [...] we must not make it too easy to achieve the targets and so lose the innovation we need "

## "We are the continent that invented industrialisation"

EWE

MEP and Chair of the Environment Committee in the European Parliament

"Europe has to take climate change leadership or we risk losing leadership. Maybe not on the negotiation table, because others are more reluctant, but in reality. The US has put billions of dollars in their recovery plan for innovative green technology and China has done a lot to take world leadership in the markets. And we are the continent that invented industrialisation! We have to make the next step to the third industrial revolution of a low carbon economy."



## "2030 is less than an investment cycle away"

Teresa Presas

Chair of Alliance for a Competitive European Industry (ACEI)

"The conditions are not there to move to a 30% reduction target. The learning curve, the cost curve will be extremely steep [...]".

"We are just coming out of a recession. All the efforts are right now geared towards that. We need to take into consideration that we need time, we need the conditions to make that commitment.

### "100% renewables in 2050 is feasible"



President of the European Wind Energy Association (EWEA)

"If we want to keep the global temperature rise under 2°C, industrialised countries need to reduce their emissions by 80-95%: a power plant has a life of at least 30 years, which means the power sector has to be

at zero carbon by 2050. That means that there should be no carbon emitting power plants built after 2020.

"In 2000, renewable energy capacity represented 20% of new installations

in Europe. In 2009 renewables represented 62% of new power installations. From 2000 to 2009 there were 42 percentage points of renewables growth; from 2009 to 2020 it would be 38 additional points for the next

11 years to get to 100% of new capacity renewables in the power sector, and this is feasible."

Commissioner Hedegaard, Jo Leinen MEP, Teresa Presas from ACEI and Arthouros Zervos from EWEA and EREC were speaking at a public debate organised by EWEA, entitled "Wind of Change – how Europe can benefit from reducing emissions by 30%" on 13 October in Brussels.

A 30% emissions cut – the timeline









At a Council meeting, the EU commits to move to a 30% emissions cut by 2020 if other major economies take on their fair

The COP14 climate meeting in Poznan fails to deliver a global agreement. EU starts considering a unilateral move to

At COP15 in Copenhagen, the EU repeats its offer to move to 30% if other countries commit. Again this fails as no agreement is reached.

The European Commission releases a tion on "moving beyond a 20% emission target", which highlights the benefits of the target without recommending a unit to 30%. EWEA releases a briefing, urgin commit to a 30% cut.

## Voicing their support

More and more voices from many different sectors are calling for a move to a higher EU emission reductions target.

**Businesses and trade unions** 

#### The Climate Group

"Moving beyond a 20% emissions reduction target is a potential winwin-win for Europe. As well as the environmental, economic and social benefits of cutting greenhouse gas emissions, it will spur innovation and investment thus creating millions of new jobs in a low carbon economy, with the global market in low carbon goods and services estimated to be worth over €3.4 trillion and growing rapidly"

Declaration organised by The Climate Group, The Cambridge Programme for Sustainability Leadership and WWF, and signed by 29 different companies: www.theclimategroup.org

### **European Trade Union Confederation**

"[The EU's] current position of not raising its emissions reduction commitment to 30% until other countries express the political will to take domestic measures with respect to the Copenhagen Accord should be revised without delay"

European Trade Union Confederation: www.etuc.org

NGOs and foundations

#### Greenpeace

"An upgrade to a 30% emission reduction target would encourage investments in labour-intensive instead of energy-intensive products. A 30% target will boost green technologies that are overall more labour intensive than conventional sectors."

www.greenpeace.org

www.roadmap2050.eu

### **European Climate Foundation**

"By deploying technologies already commercial today or in late development stage, Europe could reduce greenhouse gas emissions by 80% by 2050 compared to 1990 and still provide the same level of reliability as the existing energy system."

**Spring Alliance Manifesto** 

"The 20% target for 2020 agreed in December 2008 is an important first step but is insufficient and is undermined by generous Clean Development Mechanism allowances."

The European Environmental Bureau, the European Trade Union Confederation, Social Platform and Concord with civil society groups in the Spring Alliance Manifesto: www.springalliance.eu

### **Decision-makers**

"A reduction of 30% from 1990 levels by 2020 would represent a real incentive for innovation and action in the international context. It would be a genuine attempt to restrict the rise in global temperatures to 2°C – the key climate danger threshold – stiffening the resolve of those already

proposing ambitious action and encouraging those waiting in the wings. It would also make good business sense."

UK Energy and Climate Change Minister Chris Huhne, German Environment Minister Norbert Röttgen and French Environment Minister Jean-Louis Borloo in the Financial Times, July 2010

"The Danish government believes the time has come to increase the EU's green commitment further. Therefore, we believe the EU should set a unilateral target of reducing its  ${\rm CO_2}$  emissions by 30% by 2020 below 1990 levels."

Danish Prime Minister Lars Lokke Rasmussen, September 2010

### Posearch institutes

"The reduction proposals by the big developed and developing countries have not changed since our last update and existing loopholes have not been eliminated yet. Hence, our calculations still point to a virtual certainty of exceeding 1.5°C, with global warming by 2100 very likely to rise above 2°C and even a 50% chance of exceeding 3°C."

Dr h.c. Bill Hare, Climate Analytics Director at the Potsdam Institute for Climate Impact Research, commenting on the assessment system on www.climateactiontracker.org that shows how the commitments of each country to reduce greenhouse-gas emissions contribute to total reductions globally.



2010 29 Sep

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**E**missions

iblic deissioner an Commission to provide more information on
one can how further cuts could affect individual Member
ons by States. This may be included in the Commission's 2050 Roadmap to a Low-Carbon Economy.

to be published in 2011.

Communicans reduction f increasing ateral move g the EU to Europe's environment ministers welcome the intention of the Commission to conduct a more detailed analysis of what an increase would mean for Member States, stating that they will discuss again at their October meeting. The UK, France and Germany come out in favour of a 30% target.

Denmark also announces its support for a move to 30% reductions.

EWEA organises a high-level public debate with EU Climate Commissioner Connie Hedegaard on how Europe can benefit from reducing emissions by



# A 30% target will make Europe's ETS more effective

Increasing the EU's emissions reduction target to 30% or more is the only way of ensuring the emissions trading system (ETS), is effective.

The ETS was introduced to help EU Member States limit or reduce greenhouse gas emissions in a cost-effective way, by allowing participating companies to buy or sell emission allowances, ensuring it is the polluter who pays for emitting CO<sub>2</sub>.

However, demand and output are currently lower than usual in all sectors due to the financial crisis, which means that current emissions are below the cap set for the 2008-2012 period and even though industry has not moved to greener habits, there are emissions allowances to spare.

In theory the extra allowances mean that the carbon price should crash. However in reality, heavy industry is selling the extra allowances cheaply to the power sector - which will have to buy over 90% of its allowances after 2013 – and making a profit on allowances it received for free.

The Council must ask the European Commission to solve the issue quickly, as it could even have an impact on the effectiveness of the ETS (the number of allowances available) after 2020. The best way of doing this is the move to 30% emissions reduction.



A 30% emissions cut - what needs to happen?

In 2011 the European Commission will publish its 2050 Roadmap to a Low Carbon Economy, which should outline how a 100% renewable energy mix will underpin the reduction of greenhouse gas emissions by 80-95% by 2050.

This Roadmap should propose the adoption of a 30% emissions reduction target by 2020, and ambitious renewable energy targets for 2030.









### **About EWEA**

EWEA is the voice of the wind industry, actively promoting wind power in Europe and worldwide. It has over 650 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.