

The 6 “W”s of Climate Change EWEA’s position on the Copenhagen COP15

In December, the 192 nations party to the UNFCCC will meet to decide how to improve the climate regime after the Kyoto Protocol’s first commitment period ends in 2012. Two years following the publication of the IPCC’s seminal 4th Assessment Report, and as reported by a congress of climate scientists in Copenhagen this March, the climate crisis is deepening: oceans are acidifying and ice caps are melting much quicker than initially anticipated, thermal expansion has been underestimated and current emission trends are steadily following the worst of the IPCC scenarios, with dramatic implications.

The 6 “W”s of climate

The “Why” we need a political solution to the climate crisis is now scientifically clear. On the other hand four other “W”s are currently being discussed as part of the international negotiations, and one further “W” is key to the solution.

- **Why: because without a global solution climate change will overwhelm human civilisation.**
- **Who: a common but differentiated effort between industrialised and developing countries**
- **When: ambitious short term targets to avoid locking in high-carbon development**
- **Where: offsets cannot supplement domestic action**
- **What: carbon markets and sectoral agreements as tools for emissions reductions**
- **Wind: a key solution in the fight against climate change**

Wind: A key solution in the fight against climate change

Wind power avoids a sizeable amount of CO₂ emissions from fossil fuels and therefore helps combat climate change. 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 of wind power in the electricity mix means that more expensive and polluting technologies (oil, coal and gas) are pushed out of the market. In the EU, it is assumed that each kWh of wind power displaces a kWh created by the energy mix of coal, oil and gas at the time of production. These emit on average 666 grammes of CO₂ in the EU, each kWh produced by wind energy saves approximately.

The wind power capacity installed at the end of 2008 in the EU will avoid the emission of 91 million tonnes (Mt) of CO₂ annually – equivalent to taking more than 46 million cars off the road. By 2020, a predicted 230 GW of installed wind power could avoid yearly the emission of 333 Mt of CO₂, **equivalent to 29% of the EU’s 20% greenhouse gas reduction target for 2020** across all sectors.

Wind power not only has the potential to satisfy the increasing electricity demand in a sustainable manner; it is also a significant and vital stimulus to economies. The expected

€152 billion of investments in wind power between 2008 and 2020 will avoid €135 billion¹ worth of CO₂ emission costs and €328 billion² in fuel costs.

Finally, additional benefits come with the use of wind power: environmental benefits, as a zero emission technology, wind also avoids emissions of ozone precursors like NO_x and other air pollutants; benefits in energy security, since no fuel needs to be imported; and benefits in terms of jobs, the number of people employed in Europe by the wind power sector will more than double from 154,000 to 325,000 by 2020.

When: ambitious short term targets aiming to stay below 2°C

EWEA welcomes a target consistent with the range of 25%-40% by 2020 identified by the IPCC as necessary to give us a 50% chance to avoid the 2°C temperature increase. But recent scientific evidence shows an acceleration of climate change patterns and a deepening of the crisis, so that we need to aim high and to reduce emissions as early as possible. The economic consequences of inaction have already been estimated to be much greater than the cost of early action. Immediate mitigation is the only solution, to set a low carbon path.

Industrialised countries must agree a minimum 30% absolute, economy-wide, domestic reduction target by 2020 compared to 1990 levels, with an additional 10% from carbon markets. Long term targets are needed to orient decisions, but can only be additional to ambitious short term ones. Anything below an 80%-90% reduction in GHG emissions by 2050 falls short of recent scientific evidence.

Additionally, while a different base year than 1990 could be chosen for monitoring purposes, EWEA believes countries should not use a different base year to avoid their share of the emission reductions.

Who: a common but differentiated effort between Annex I and non Annex I countries

While the path for industrialised countries is clear, non-Annex I countries are having an increasing impact on annual GHG emissions. A differentiated approach to reduction targets will be necessary, taking into account the different growth patterns among developing countries.

It is in the interest of more advanced developing countries to ensure that their development path does not repeat the errors made by OECD countries. They should avoid the use of fossil fuels and leapfrog directly to an approach based on renewable energies and energy efficiency, mitigating the crippling air pollution in many major cities, creating millions of jobs, reducing dependence on imported fossil fuels as well as avoiding increased CO₂ emissions.

A significant deviation from BAU should be the minimum target, excluding offsets from developed countries, which needs to be additional.

To ensure adequate effort between developed and developing countries, according to the principle of common but differentiated responsibilities and respective capabilities, a set of economic indicators could be used:

¹ Assuming a price of €25/t CO₂

² Assuming a \$90/barrel oil price

- GDP per capita as an indicator of countries' ability to finance a shift towards a zero carbon society
- Emissions per GDP are equally appropriate to evaluate reduction potential
- Early action can be taken into account, but economic slowdown must not be mistaken for actual structural emission reductions.
- Population trends have to be taken into account, and this should be done keeping in mind the long term target of converging per capita emissions
- Historic responsibilities need to remain at the heart of the effort sharing and EWEA urges industrialised countries to keep this fact in mind in the negotiations, and not to wait for developing countries to take on the lion's share of the reductions.

Last but not least, Least Developed Countries should not be burdened by reduction targets but helped by financial means and project based mechanisms towards a GHG-free development.

Where: CDM offsets cannot supplement domestic action and need to be reformed

Under the current CDM mechanisms, HCFC and HFC projects have been awarded the most CERs (Certified Emission Reductions). They are generally cheap options, which have a low impact on future sustainable development and could be promoted by other means. (i.e. regulatory phase-outs as in the Montreal Protocol). Going for energy efficiency and renewable energy projects like wind power locks in a truly clean development. As a consequence, EWEA believes that revised additionality rules should make it easier for wind projects to be eligible for CDM under a future agreement.


Wind and renewable energies are booming in industrialised countries. Without the added incentive of the CERs from CDM projects, it is likely that companies will choose to remain where the regulatory framework is stable and favourable, and where issues like grid connections or transportation are not a problem.

The lack of geographical spread of CDM projects needs to be addressed. Directing some financing to infrastructure such as an electricity grid could remove some of the difficulties project developers are encountering locally and facilitate an improved geographical spread. Similarly, the administrative burden of CDM projects must be substantially reduced. Current costs – time and money – are too high in relation to the income that they entail.

What to do: carbon markets and sectoral agreements as tools for emissions reductions

The current financial crisis calls for cost-effective means of reducing emissions and carbon markets, when used properly, can deliver just that. Currently, the cost of climate change is carried by society as a whole, and carbon markets can help affect that cost to the actual emitter, giving the necessary signal to move away from polluting practices towards more efficient technologies/practices such as wind power, renewable energies and energy efficiency.

In the energy sector, putting a price on carbon will get us one step closer to a level playing field, as opposed to the current situation where polluting technologies fully benefit from the socialisation of costs, and privatisation of profits. Additionally emission trading can leverage substantial revenues, which can in return be used to support mitigation actions at national or international level.



Caps on emissions or reduction targets must be set at an ambitious level. Phase I of the EU-ETS has shown that a cap and trade system is useless and even counter-productive without proper targets. And as more trading systems are being designed, the issue of linkage arises. Linkage should only be pursued if there is enough certainty that the systems are comparable and free of misconceptions, like unsustainable crediting systems or free allocation.

Finally the issue of sectoral agreements is currently being discussed at UNFCCC level. While “sectoral crediting mechanisms” might be a tool to incentivise reductions in a positive way, EWEA calls for both baselines, crediting lines and implementation measures to be set in a way that ensures real reductions, avoids hot air and windfall profit potential, and encourages a switch from polluting technologies to wind power and renewables.