

Climate change: Commission sets out Roadmap for building a competitive low-carbon Europe by 2050

The European Commission today adopted a Roadmap for transforming the European Union into a competitive low carbon economy by 2050. The Roadmap describes the cost-effective pathway to reach the EU's objective of cutting greenhouse gas emissions by 80-95% of 1990 levels by 2050. Based on the cost-effectiveness analysis undertaken, the Roadmap gives direction to sectoral policies, national and regional low-carbon strategies and long-term investments. The EU needs to start working now on long-term strategies, and the Roadmap provides guidance on how this transition can be achieved in the most cost-effective way. The European Commission has also taken the initiative because leading the global transition to a low carbon and resource-efficient economy will have multiple benefits for the EU.

Connie Hedegaard, European Commissioner for Climate Action, said: " 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. So starting the transition now will pay off. And the good news is we don't need to wait for technological breakthroughs. The low carbon economy can be built by further developing proven technologies that exist already today. In this transition, all economic sectors need to contribute, including agriculture, construction and transport. By describing the cost effective pathway to move Europe to a low carbon future, our Roadmap provides a clear and predictable framework for business and governments to prepare their low-carbon strategies and long-term investments"

Focus on domestic measures

The European Council has endorsed the objective of reducing EU emissions of greenhouse gases to 80-95% below 1990 levels by 2050 as Europe's long-term contribution to preventing dangerous climate change.

The Roadmap sets out a cost-efficient pathway to reach this goal, recommending that Europe should achieve it largely through domestic measures since by mid-century international credits to offset emissions will be less widely available than today. By 2050 the EU should therefore reduce emissions by 80% compared to 1990 levels through domestic action alone. Any credits used would increase the overall emissions reduction beyond 80%.

The comprehensive economic modelling underlying the Roadmap shows that to achieve an 80% 'domestic' reduction by 2050, cuts of the order of 40% and 60% below 1990 levels should be achieved by 2030 and 2040, respectively. All sectors will need to contribute. Current policies are projected to reduce domestic emissions to -30% in 2030 and -40% in 2050.

Fuel savings

Building a low carbon EU economy will require, over the next 40 years, additional annual investment equivalent to 1.5% of EU GDP - or €270 billion - on top of overall current investment of 19% of GDP. This increase would merely return Europe to the investment levels seen before the economic crisis. Much or all of this extra investment will be recovered through lower import bills for oil and gas. These savings are estimated at €175-320 billion a year.

Moreover, this low carbon investment - in clean technologies, infrastructure such as 'smart' electricity grids and environmental protection - will have multiple benefits. Fuel costs are paid largely to third countries, while investment creates value-added in the EU. On top of reducing Europe's dependence on energy imports, and thus our vulnerability to potential oil price shocks, the investment would stimulate new sources of growth, preserve existing jobs and create new ones. Air pollution and its associated health costs would also be cut. Total benefits from better air quality could reach up to €88 billion a year by 2050.

2020 target

The analysis also shows that the most cost-efficient pathway to the 2050 target requires a 25% emissions cut in 2020, to be achieved through internal measures alone, rather than the current 20% reduction target. The roadmap shows that this 25% domestic cut¹ can be reached in 2020 if the EU meets its 20% energy efficiency improvement goal - reaffirmed by Heads of State and Government at the 4 February Energy Summit – and fully implements the 'climate and energy' package of measures for 2020 adopted in 2009.²

To reach the 20% energy savings goal, it may be necessary to set aside some of the emission allowances from the pool of allowances that is to be auctioned by the Member States from 2013 under the EU ETS. This set-aside would be built up gradually and will respect emission allowances already held by companies. Without a set-aside, energy savings achieved by one company would result, via relatively lower demand for allowances, in weakening of the price of allowances. This could prompt another company to produce more, consume more energy and emit more carbon dioxide. As a result, net energy savings would be low or non-existent. Additionally, due to the stable ETS cap, no net reductions of emissions would be achieved. The set-aside would neutralise the above-mentioned effect supporting net energy savings and emissions reductions.

Next steps

The Roadmap takes the form of a Communication that is addressed to the Council, European Parliament and EU bodies. The Commission invites them, member states and stakeholders to take the Roadmap into account in the further development of EU and national policies for achieving a low carbon economy by 2050. As a next step the Commission sees a need to develop specific sectoral roadmaps in cooperation with the sectors concerned.

¹ The EU's offer, in the context of the international climate negotiations, to take on a 30% emissions reduction by 2020 if the conditions are right remains on the table and is not affected by the roadmap.

² see http://ec.europa.eu/clima/policies/package/index_en.htm

Further information:

Questions and Answers on the low carbon roadmap: [MEMO/11/150](#)

Low carbon roadmap:

http://ec.europa.eu/clima/policies/roadmap/index_en.htm

http://www.ec.europa.eu/commission_2010-014/hedegaard/headlines/roadmap/index_en.htm

A resource-efficient Europe - Flagship initiative of the Europe 2020 Strategy:

<http://ec.europa.eu/resource-efficient-europe/>