

IWEA response to consultation on Roadmap 2050

7) The EU has put in place a regulatory framework related to climate and energy. Which of the following EU legislations you expect to be the most effective in terms of delivering emission reductions by 2020 and beyond? (select maximum 4) (optional)

The Renewable Energy Directive 2009/28

Regulation on ozone-depleting substances (already reduced emission)

Other options:

Effort sharing decision

Emission Trading System

8) Do you have any comments on the policies evaluated in the previous question? Do you have any comments on any other policies? (optional)

It is important to distinguish between EU policies that have a direct impact on the markets for renewable energy technology (The Renewables Directive) and those policies that have an indirect impact on these markets (the Emissions Trading Scheme).

The expansion of renewable energy is having a significant impact on emission reductions: in 2009 wind power alone avoided 106MtCO₂e. In 2020 wind power will avoid 333MtCO₂e. This is equivalent to roughly 29% of the EU's 20% target.

Those greenhouse gas reductions delivered by wind energy (and other renewables) are a result of the national measures put in place in accordance with the EU Renewables Directive.

9) The EU will need a diverse portfolio of technologies to build a low-carbon future. Some examples of potential technologies and energy efficiency solutions are carbon capture and storage, renewable energy technologies, electric vehicles, fuel cells, smart grids, heat pumps, cogeneration, next generation nuclear power, zero emission buildings, etc. Which technologies do you think will be the most important in achieving a low carbon economy by 2050 and how can the EU foster their development and deployment?

In the discussion about technology, a clear distinction must be made between i) primary energy technologies, e.g. coal, gas, oil, nuclear, wind power, ii) energy carriers, e.g. electricity and hydrogen, and iii) end-of-pipe technologies, e.g. efficiency measures, fuel cells, insulation, smart grids. Hydrogen is only as 'green' as the energy used to produce the hydrogen and electric vehicles will only be carbon-free if the primary energy consumed to produce the electricity is carbon-free.

The Heads of State have committed to reducing greenhouse gas emissions by 80-95% by 2050. 2050 may seem a long time from now but in the power sector 2050 it is only one investment cycle away, which means we must act today and provide the markets with clear signals on technology choice.

The European Union could continue policies that have proven successful in the past in delivering a transformation of our power sector: the 2001 RES-E Directive and the 2009 Renewables

Directive – and agree on an ambitious, binding 2030 targets for renewable energy that are compatible with the needed carbon reductions in the power sector.

10) What are in your opinion the most important initiatives the EU should pursue in the next five to 10 years to secure a successful transition towards a low carbon economy by 2050? (optional)

Given the successful renewables policies of the European Union – the 2001 RES-E Directive with its 21% renewable electricity target for 2010, and the 2009 Renewables Directive with 34% renewable electricity in 2020 – the European Union should agree on an ambitious 2030 renewables target. This should be adopted in good time, e.g. in 2015, before the current legislative framework (the 2009 Renewables Directive) ends, to provide investors with a clear direction and investor certainty. The 2030 legislative framework must be accompanied by measures to ensure that the infrastructure – in particular cross-border interconnectors – are developed to support the change in technology mix, just as our infrastructure was changed to support the large build-up in nuclear power in the 1960s and 1970s.

11) The EU Emissions Trading Scheme is a central element of EU climate policy. The EU wants to foster international climate action by reinforcing international carbon markets, e.g. by making links among emissions trading systems and by further developing crediting systems. What elements do you think should go into the EU low-carbon roadmap? (e.g. bilateral agreements to recognise international allowances and credits, sectoral crediting systems, separate financing mechanism for the purchase of international credits from developing countries, etc.) (optional)

12) Achieving a low-carbon future means investing in the medium to long-term. How can the EU roadmap help to create a stable environment to encourage investment in low carbon technologies? Would it be a good idea to consider a mid-term objective for 2030 and, if so, in what form? (optional)

The Roadmap should consist of the following elements:

The Roadmap should indicate pathways to reach 80-95% GHG reductions by 2050, including carbon objectives for 2020, 2030, 2040 and 2050. These pathways must be broken down on sectors, including a carbon pathway for the electricity sector that reaches zero- carbon in 2050.

The electricity sector pathway must be accompanied by an analysis of the viable power technology mixes to reach that carbon pathway. It is crucial that this analysis takes into account the large amount of existing and ageing power plants that will be retired over the coming decades.

Given the successful renewables policies of the European Union – the 2001 RES-E Directive and the 2009 Renewables Directive – the Roadmap should also include a recommendation for the level on an ambitious 2030 renewables target.

13) We want to cut emissions in the EU by 80% to 95% by 2050. Some of the measures needed to achieve this could bring about more sustainable growth, extra jobs, accelerated innovation, cleaner air, increased energy security and lowering our vulnerability to external energy shocks.

Which of these do you think should be top of the list? What should the EU do to maximise the benefits you think should be delivered in priority by future climate action? (optional)

These co-benefits mentioned - sustainable growth, extra jobs, accelerated innovation, cleaner air, reduced import dependence, increased energy security and lowering our vulnerability to external energy shocks – should be given higher visibility and priority in the EU's climate change strategy.

The May 2010 communication from the Commission made a good start, but needs to be clearer so that the focus of future impact assessments shifts from the simple “cost” to the “cost and benefits” of climate policies, including the cost and risks of doing nothing.

14) What sectors do you think may be most vulnerable to the negative impacts of climate change, and what policies do you think the EU should pursue to help them to adapt? Do you have any suggestions on the integration of adaptation policies in the Common Agriculture Policy, civil protection, environment, energy, transport, research and development policies? (optional)

Measures must be introduced to ensure training that can allow labour mobility from yesterday's energy technologies to modern technologies with an export potential.

15) Do you have success stories that could lead to new initiatives for steering EU transition to a low-carbon economy you wish to highlight? Please add other further comments or suggestions here if you wish. (optional)

In the year 2000, renewables accounted for 20% of newly installed power generating capacity in the EU, mainly wind at 19%. In 2009 renewables accounted for 62% of newly installed power generating capacity in the EU. More wind power capacity was installed than any other generating technology, 39% of the total.

Wind power is now generating approximately 5% of EU electricity, with renewables in total accounting for 20%. We will most likely meet the 2001 Directive target of having 21% of our power coming from renewable energy sources in 2010.

The binding target approach has worked for renewable electricity since 2001 and for renewable energy since 2009. We do not have time for experiments or can afford the risk of policy failure. The successful EU policies should be continued through a stable EU legislative framework beyond 2020.