

## **UK Comments on 2050 Energy Roadmap to EU Commission**

The UK welcomes the publication of 2050 Energy Roadmap as an important contribution to securing the EU's transition to a low-carbon economy. The Low Carbon Roadmap set the challenge of almost complete decarbonisation of the energy sector by 2050 as a necessary element of emissions reductions; the multiple pathways laid out by the Energy Roadmap show that decarbonisation is not only possible, but cost effective.

The UK believes that the Roadmap should be used to set the parameters for a discussion of the post-2020 framework for encouraging the development of low carbon energy to EU businesses and residences. In order to ensure that the individual needs and circumstances of each Member State are taken into account, we believe the roadmap should be used to promote an iterative process under which Member States produce their own transition plans and are encouraged to share insights and solutions and to understand better mutual interdependencies. The Roadmap should be a dynamic document, adapting to developments in energy technologies and policies. As the post-2020 framework needs to take into account the circumstances of all Member States, any targets set should be neutral with respect to different low carbon technologies.

### ***Electricity Market Reform***

The UK government's analysis suggests that for the UK to meet its 2050 targets cost-effectively, the electricity sector will need to decarbonise during the 2030s. We agree with the Commission's analysis that, even with increased energy efficiency, overall electricity demand will increase. To prepare for this, the UK has begun reform of its electricity market. This package of reforms is intended to create an enduring framework for future investment, and to secure electricity supplies for the future whilst enabling the UK to meet its ambitious carbon targets whilst minimising the cost to consumers.

It is important to manage the transition to a low carbon economy in the most cost effective way to avoid overburdening businesses and consumers - particularly at a time of economic uncertainty. The best approach to managing costs is through diversity of energy supply and through market competition. The UK's electricity market reform is based on the principle that different low carbon technologies competing in the market will deliver the lowest cost carbon reductions. The UK believes it has been able to introduce a suite of policies that will deliver the best impact for our consumers.

Our reforms will put in place a regulatory framework based on:

- (i) feed-in tariffs for all low carbon technologies, which will allow younger technologies to mature so that in the near to mid-term future they will be able to compete in the open market;
- (ii) a capacity mechanism to stimulate investment in back-up power;
- (iii) an emissions performance standard to prevent investment in the least carbon efficient technologies - this will reinforce the requirement that no

new coal-fired power stations are built without carbon capture and storage, while ensuring that short-term investment in gas can take place; and

- (iv) from 1 April 2013, the UK will have in place a carbon price floor to provide an early, credible long-term signal to investors that the UK is serious about investment in low-carbon electricity generation now, which complements the wider Electricity Market Reform proposals reinforcing the polluter pays principle.

The UK government considers that together, these measures will provide the necessary support and stable revenues to decarbonise electricity generation at least cost to the consumer. In time, we expect that this regulatory framework will enable different low carbon technologies to compete against each other on a level playing field for their appropriate role in the energy mix.

Given that energy accounts for so much of the EU's carbon emissions, it is right to consider how to decarbonise this particular sector. It is important too, to see it in the wider context of the EU's efforts to decarbonise the whole economy and in support of the EU's position in the international climate change negotiations. We are pleased that the Energy Roadmap acknowledges that its scenarios assume a legally binding international framework to tackle climate change. The problem of carbon leakage presents a real risk to the decarbonisation goals for the EU and thus the case is made all the more stronger for securing a legally binding deal through the UNFCCC.

### ***Technology Neutrality***

In particular, the UK welcomes the Roadmap's use of multiple scenarios. The generation of diverse and multiple decarbonisation scenarios demonstrates that there are many ways to reach our 2050 goals. The unique circumstances of each Member State mean that no one technology will provide the answer for all. Member States should use the Roadmap to develop their own pathways analysis and decide the best, most cost effective solution for them. The UK is pleased to note that, of the Roadmap's ten structural changes for energy system transformation, both nuclear energy and carbon capture and storage (CCS) are included as providing important roles in addition to renewables.

The UK envisages multiple low carbon technologies: renewables, nuclear and CCS all competing freely against each other in the years to come, driving down capital costs as the market forces innovation and greater efficiency. For this reason, we cannot support a 2030 renewables target. Any technology-specific target risks distorting the market and making investment in other low carbon technologies more difficult. It could also force the EU down a more expensive route to 2050 than necessary. We note that the Diversified Supply Technologies scenario is the least expensive.

It must be stressed that the UK is not in any way "against renewables". We expect them to provide the bulk of low carbon generation in the UK. Nevertheless, we do

not think their development or the EU's move to a low carbon economy is helped by having another renewables target.

### ***EU ETS***

The EU ETS is the EU's primary mechanism for reducing carbon emissions, and provides a real incentive to those installations covered to reduce their energy demand, either through investment in abatement, through energy efficiency measures or through fuel switching. The UK believes that the best way of ensuring that the EU ETS continues to provide strong incentives to reduce energy demand would be for the EU to tighten the ETS cap as part of delivering a 30 per cent EU emissions reduction target by 2020. By restricting emissions levels and by bolstering the signal sent by the carbon price, this would ensure that it sends the right signal for investment in low carbon generation and for further energy efficiency measures. With this in mind, the UK believes that it is very important that any overlaps between the EU ETS and the Energy Efficiency Directive are minimised, and that if necessary, measures should be taken in the ETS to ensure the right alignment between the two.

### ***Infrastructure and Investment***

As the Energy Roadmap shows, the final energy mix for the EU will be very different from that of today. To accommodate a higher proportion of renewables, energy infrastructure in the EU will require a major overhaul. The investment required is enormous; and the UK agrees with the Commission's analysis that acting now can avoid higher costs later.

Most infrastructure investment should be financed commercially. But for commercial investors to be attracted to these projects in sufficient quantity, Member States and the EU must be able to provide a supportive regulatory framework and sufficient policy certainty. The UK recognises that one way to do this is to set some type of target for 2030 and would welcome a discussion of the pros and cons of such an approach in due course.

### ***The Roadmap as a tool for national-level work***

To help Member States make the necessary policy decisions to facilitate a cost-effective transition to a low carbon economy, the Roadmap should be used as a tool to identify the policy decisions they need to take to put themselves on the path to 2050. An iterative process of work at a national level feeding into the future updates to the Roadmap would help to clarify post-2020 ambitions and enable Member States to bring their own experience to bear in the development of future decisions at an EU level. The UK also believes that as part of this process, Member States facing similar challenges should be encouraged to exchange the insights from their own pathways analysis and to develop a better understanding of the inter-dependencies between the plans of different countries. This could provide information to national and EU policy-makers, inform decisions over the balance between measures at Member State or EU level and provide a basis for further more detailed work.

The UK is keen to see this process start as soon as possible and is willing to share its experience and analysis.

The Roadmap provides us all with a framework for action; we should use it to work together to understand the challenges, identify the decisions needed and secure our 2050 objectives.