

## **SSE response to the Committee on Climate Change's (CCC) 4<sup>th</sup> Carbon Budget Review – call for evidence**

SSE is a UK-owned energy company that invests in the region of £1.5 billion annually into the UK economy. SSE is the second largest energy supplier in the UK with over 9 million customers and the largest generator of renewable electricity. SSE is also involved in the transmission and distribution of electricity as well as providing contracting and home services.

SSE broadly agrees with Energy UK's response and would therefore like to use this opportunity to contribute with additional areas for consideration alongside Energy UK's key points. SSE supports the national objective to reduce CO<sub>2</sub> emissions by 80% by 2050, but has questions regarding the pathways to achieve this target. SSE, along with many others, will be an important player in delivering these pathways. SSE's main recommendation is that the parts of the 4<sup>th</sup> carbon budget, including the scenarios and the criteria applied to assess the necessity of a review (competitiveness, fuel poverty, security of supply, fiscal circumstances and devolved administrations) need to be considered concurrently and not as separate policy areas. This is in order to minimize any risk that progress in one area does not negatively affect another for example through carbon leakage.

### **A. Climate Science and International Circumstances**

SSE does not have in-depth expertise across the range of relevant academic fields relevant to climate science. However based on monitoring scientific literature on climate science we do not see evidence to suggest that the underlying science has fundamentally changed which would justify the fourth budget being reviewed. We agree with Energy UK that the IPCC Fifth Assessment Report (AR5) represents a major scientific update which should be taken into account by government to assess if the status and conclusions of climate science have changed since their last report. If, as expected, there is no material change to the fundamental science, stable long term policy signals such as the level of the 4<sup>th</sup> budget should be retained since these are necessary to underpin long term capital investment.

Specific policies derived from the overarching Climate Change Act may however require modification in the light of forthcoming decisions around the structural reform of the EU ETS, an international agreement post-2015 and the EU 2030 climate and energy package. We further agree with Energy UK's proposal that the CCC presents a predictable way of adjusting the carbon budget in light of these decisions in order to maintain the investment certainty offered by the current carbon budget.

### **B. Technology and economics**

#### **Scenarios**

SSE recommends the CCC look at the interaction between the different scenarios outlined for the power sector. For example, if the 50g CO<sub>2</sub>/KWh scenario does not materialise, it might not be sensible to pursue scenarios with a high uptake of electric vehicles and heat pumps as with a less decarbonised power sector these technologies will be unlikely to deliver the targeted carbon emissions. Furthermore, valid concerns have been raised about, for example, consumer acceptance of these technologies, which we do not believe have been fully taken account of in developing the scenarios. Whichever pathway is chosen, some bold decisions are likely to have to be taken by Government, for example regarding the future of the gas network, and it remains to be seen whether Government will have the appetite to take such decisions in a timely fashion. SSE also believes that the scenarios should begin with considering the CO<sub>2</sub> emissions of consumption activities in

the UK. While emissions from production, both in the power sector and the economy as a whole, have decreased, consumption based emissions have increased significantly over the last decades. Between 1993 and 2010, for example, the carbon footprint of imports used directly by consumers increased by 74%.<sup>1</sup> In the light of these considerations, *SSE suggests that the CCC offers a clearer way of looking at the scenarios and the interaction between them, including the issue of carbon leakage.*

## **EU ETS**

The EU ETS has been partially successful. It has demonstrated that a functioning carbon market can be constructed, and carbon emissions have been reduced over this period. However, it is difficult to determine what role the ETS played in this carbon reduction. Furthermore, the ETS has failed to deliver emissions reductions in a manner that simultaneously attracts investment in low-carbon technologies. An oversupply of emissions allowances has been allowed to build up as a result of economic contraction, stringent renewable and energy efficiency targets and over-allocation of allowances by Member States. This will depress the carbon price in the long term, and reveals a more important structural flaw in the ETS – the inability to modulate supply of allowances according to demand, which produces a highly volatile market that undermines the value of putting a price on carbon.

SSE suggests this failure can be addressed by a structural reform of the EU ETS, which applies a volume-based trigger to withdraw allowances from the market during times of high supply to be placed in a 'surplus reserve', while a relative price-based trigger would release allowances mechanistically when the price is excessively high. This reform allows for more stable allowance prices and provides much needed long-term investment clarity for the power sector, thereby increasing the likelihood of bringing forward the investment in low-carbon technology to meet the CCC's carbon budgets.

Though the EU ETS is influential, SSE believes that other policies are also significant in influencing the power sector's contribution to the 4<sup>th</sup> carbon budget. Renewables targets, low carbon support schemes, such as the CfD, and the carbon price floor are important as well. By changing the UK's carbon emission aspirations, changes to the carbon budget will also influence these policy areas in a way that will inevitably affect the power sector.

## **Shale Gas**

The economic impact of exploiting the UK's potential reserves of unconventional hydrocarbons are nearly impossible to predict with reasonable statistical certainty, and the impacts are some way into the medium to long term. More immediately, shale gas projects in other countries have had a substantial impact on fossil fuel economics for example by driving down prices for coal to UK buyers.

## **C. Other issues: New evidence of impacts of Fourth Carbon Budget**

### **Security of Supply**

The current uncertain policy environment is halting investment in renewables and gas plant. This jeopardizes both the decarbonisation targets in the carbon budgets and security of supply. The design and success of the CfD and the capacity mechanism will play a significant role in the UK generation mix. In particular the anticipated load factors of thermal vs renewable generation going forward will impact on the carbon emissions of the power sector. The Government needs to act quickly to finalise details around the Electricity Market Reform and provide investable policy frameworks that encourage new build in the UK.

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<sup>1</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/85869/release-carbon-footprint-dec2012.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/85869/release-carbon-footprint-dec2012.pdf)

If the EU ETS allowances do not stabilize at a higher price, the significant top up from the carbon price floor will incentivise GB generators to invest in new plant on the continent and connect these to the UK via interconnectors as this would be the cheaper option than investing in GB. A carbon price differential between GB and other markets of around £5 would encourage significant fuel and carbon leakage (i.e. generating abroad and importing would be cheaper than domestic generation) and a differential of £15-20/tonne would result in major investment leakage to the continent.

### **Competitiveness and Fuel Poverty**

While there are risks to the competitiveness of energy intensive industries arising from higher energy bills, *SSE believes that it is important to maintain the 'polluter pays' principle.* If energy intensive industries are nonetheless exempted from CfD costs through the government's intended compensation package, it would be preferable to cover these costs through a means-tested tax rather than through the levies on bills, which may well push more people into fuel poverty.

As mentioned in the Energy UK response, energy efficiency measures paid for through energy bills rather than through general taxation might lead to more households finding themselves in fuel poverty. Despite supporting the policy intent, SSE believes that the Energy Company Obligation (ECO) needs to be designed in a way that does not add significant and unnecessary costs to household energy bills in the short and medium term. SSE remains concerned that the costs will be considerably higher than the £1.3bn estimated by DECC in the final impact assessment. Independent research highlighted that the costs are likely to be over £2bn per year.<sup>2</sup> SSE's early experience and brokerage results have shown this to be true.

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<sup>2</sup> NERA, 2012. <http://www.energy-uk.org.uk/press-releases/759-new-energy-efficiency-scheme-could-addover-p94-to-energy-bills.html>