Committee on Climate Change – Call for Evidence
7 Holbein Place
London
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20 August 2013

Review of the Fourth Carbon Budget – Call for Evidence

EDF Energy is one of the UK's largest energy companies with activities throughout the energy chain. Our interests include nuclear, coal and gas-fired electricity generation, renewables, and energy supply to end users. We have over five million electricity and gas customer accounts in the UK, including residential and business users.

EDF Energy has previously expressed its support for the Government's decision to adopt the recommendations of the Committee on Climate Change (CCC) on the Fourth Carbon Budget. We maintain the position that a clear and stable long-term policy framework, as has been provided by the carbon budgets to date, will help inform the priorities for policy development and assist in providing investors with the certainty they require to accelerate the delivery of low carbon investment.

The fundamental consensus on climate change science has not changed, and there is overwhelming evidence that supports the causal link between human activity, greenhouse gas (GHG) emissions and climate change. Despite some apparent setbacks, we are encouraged by the fact that the United Nations Framework Convention on Climate Change (UNFCCC) process is continuing, and that the prospect of a global agreement on the Durban Platform post 2020 framework by 2015 still remains a strong possibility. We remain confident that an international agreement is forthcoming following recent positive moves from the US and China. There is also evidence of new emissions regimes developing at both national and sub-national levels in countries as diverse as Chile, Ukraine, Switzerland, Kazakhstan and New Zealand.

On the potential benefits of UK shale gas, we share the view that any UK shale gas production will not change the delivery path for achieving the UK's 2050 GHG emissions reduction target. We also do not believe that development of shale gas will have the same 'game changer' effect as seen in the US with regard to UK gas prices and energy costs. While we recognise that US shale gas has increased the volume of gas globally, our expectation is that this may only serve to curb the extent of price rises in the long-term rather than drive prices down from current levels.

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There is general agreement within both industry and the Government that power sector decarbonisation by 2030, or soon thereafter, is necessary to meet the UK's statutory requirement of an 80% reduction in GHG emissions by 2050. This is because low carbon electricity generation is likely to be a key driver in the decarbonisation of the residential heat and surface transport sectors. We would highlight that a number of analyses, including the Government's 2050 Pathways Analysis, show that new nuclear will be a vital component of any pathway compatible with the 2050 objective. This is because it is the most internationally competitive and lowest cost option for firm low carbon electricity supplies, and can make a significant contribution to providing safe, secure and affordable low carbon energy in the UK.

While the recession has made it easier to hit the budgets, it is unclear if there has been sufficient investment in structural changes to permanently reduce emissions. Therefore, we do not believe the recent trend in emissions would justify a tightening of the budget. There remains a possibility that the reduction in emissions has delayed investment in low carbon technologies and created a greater delivery risk for subsequent budgets. We agree with the CCC's assessment that "achieving this reduction [by 2050] will require a step change in the pace of UK production emissions reduction, now needed urgently."

Although we have seen some slippage in the delivery and implementation of the Government's policy framework to deliver power sector decarbonisation, EDF Energy believes that the assumptions on abatement potential remain broadly valid and that the substantial decarbonisation of the power sector by the early 2030s remains a valid objective. It is imperative that the Government maintains momentum on delivering Electricity Market Reform (EMR), which we believe will help achieve decarbonisation of the electricity sector at lower cost. Reform of existing electricity market arrangements is necessary to ensure the market is capable of delivering the reliable, diverse energy mix required to achieve the UK's energy policy objectives. We believe that the Government's proposals will provide the investment framework that is crucial for the low carbon investment that the UK needs, and will keep costs down for consumers.

Any dilution of the Government's efforts to decarbonise the electricity sector, signalled by a relaxation of the Fourth Carbon Budget, is likely to significantly undermine investor confidence. Such a change would also entail additional costs for the UK economy due to disruption in low carbon supply chains, and will restrict investment opportunities in low carbon generation assets through the 2020s.

EDF Energy recognises that it is possible that some low carbon policies may have an indirect impact on energy intensive users through their effect on electricity prices. We therefore support the Government's proposals to assist those Energy Intensive Industries (EIIs) exposed to international competition, and therefore the risk of carbon leakage, as a result of the indirect costs of UK and EU climate policies. However, it should be borne in mind that firms may wish to relocate production abroad for a number of reasons, and that energy costs are only one such consideration.

Contracts for Difference (CfDs) will be a key component of ensuring value for money for consumers by shielding them from the damaging impacts of high and volatile fossil fuel prices. By reducing risk to investors, they will lead to a lower cost of capital and a reduction in bills compared to alternative mechanisms such as the Renewables Obligation.

Our detailed responses are set out in the attachment to this letter. Should you wish to discuss any of the issues raised in our response or have any queries, please contact Ravi Baga on 020 7752 2143, or myself.

I confirm that this letter and its attachment may be published on CCC's website.

Yours sincerely,

Angela Piearce
Corporate Policy and Regulation Director

Attachment

Review of the Fourth Carbon Budget – Call for Evidence

EDF Energy's response to your questions

A. Climate Science and International Circumstances

Question 1: Does the scientific evidence justifying the climate objective remain the same as in 2010? In particular, is there new evidence on climate change impacts?

The fundamental consensus on climate change science has not changed, and we believe there is overwhelming evidence that supports the causal link between human activity, greenhouse gas (GHG) emissions and climate change. Climate change is a global issue, and so international collective action will be critical in driving an efficient and equitable response on the scale required to meet our climate challenges. In this regard, it will be important to take into account the upcoming Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report on the scientific, technical and socio-economic aspects of climate change, expected in September 2013.

Question 2: Have the emissions pathways consistent with achieving this objective changed? In particular, is there new evidence on climate sensitivity to emissions?

EDF Energy believes that the emissions pathways, on which the Fourth Carbon Budget is based, are entirely consistent with achieving the stated objective of reducing GHG emissions by 80-95% by 2050. We would highlight that a number of analyses, including the Government's 2050 Pathways Analysis, show that new nuclear will be a vital component of any pathway compatible with the 2050 objective. This is because it is the most internationally competitive and lowest cost option for firm low carbon electricity supplies, and can make a significant contribution to providing safe, secure and affordable low carbon energy in the UK.

We are not aware of any new evidence on climate sensitivity to emissions.

Question 3: Does the climate objective remain in play given international developments? Has the likelihood of getting global agreement changed significantly since the budget was set, and if so why?

The mainstream consensus on the need for urgent action on climate change has not changed, despite the lack of apparent progress in international climate negotiations. It is crucial that the UK continues to make the transition to a low carbon economy in an affordable manner that ensures that the competitiveness of UK energy supplies is maintained.

Despite some apparent setbacks, we are encouraged by the fact that the United Nations Framework Convention on Climate Change (UNFCCC) process is continuing and that the prospect of a global agreement on the Durban Platform post 2020 framework by 2015 still remains a strong possibility. We remain confident that an international agreement is forthcoming following recent positive moves from the US and China. There is also evidence of new emissions regimes developing at both national and sub-national levels in countries as diverse as Chile, Ukraine, Switzerland, Kazakhstan and New Zealand.

In addition, we would highlight that progress is being made at the European Union (EU) level, with the publication of the European Commission's Green Paper on a 2030 framework for climate and energy policies and the growing recognition of the need for structural reform of the EU Emissions Trading System (EU ETS). The climate commitments made by the EU will play a key role in securing any global agreement.

Question 4: How have the prospects for a new EU package for 2030 changed since the Committee's advice and the setting of the budget? What implications do the latest expectations have for the Fourth Carbon Budget?

The European Commission, through its Green Paper, has recently consulted stakeholders to support the development of a new integrated climate and energy policy framework for the period to 2030. This framework should ensure that the EU is on track to meet longer term climate objectives (reducing GHG emissions between 80-95% by 2050) and build upon the Energy Roadmap 2050 set out in 2011. We welcome the fact that that there is a now a strong recognition within Europe of the need for concrete legislative proposals to carry out structural reform of the EU ETS.

We note that the UK Government's intended review of the Fourth Carbon Budget, which will consider developments in the EU emissions reduction trajectory, will occur in 2014. We would expect that any positive developments in agreeing the future EU emissions trajectory to 2030 and beyond will be a major factor in the review process. Conversely, any lack of formal resolutions at this stage should not in itself be a reason to revise the Fourth Carbon Budget.

Question 5: What flexibilities are appropriate to reflect possible future changes in EU and international circumstances?

We do not believe that the Fourth Carbon Budget should be tightened in response to the recession. The effects of the recession have already led to delayed investments and potentially increased delivery risk. We believe that any headroom available would provide the required flexibility and contingency. While the recession has made it easier to meet carbon budgets, it is unclear if there has been sufficient level of investment to permanently reduce emissions beyond 2020 to afford a tightening of the budget.

B. Technology and economics

Question 6: Is there any new evidence to suggest that the type of scenarios upon which the budget was based are no longer feasible or cost effective?

EDF Energy believes that the decarbonisation scenarios upon which the budget was based are valid, achievable and cost effective. There is now general agreement across industry and the Government that power sector decarbonisation by 2030, or soon thereafter, is essential to deliver the reductions in other sectors needed to achieve an 80% reduction in GHG emissions by 2050 (60% by 2030). Low carbon electricity can play a key role in decarbonising the residential heat and surface transport sectors. The proposed Fourth Carbon Budget of 1950 $MtCO_2e$ for the period 2023 to 2027 is consistent with an 80% reduction in emissions by 2050.

We agree with the CCC's previous assessment that "achieving this reduction [by 2050] will require a step change in the pace of UK production emissions reduction, now needed urgently." We feel it is therefore imperative that the Government maintains momentum on delivering Electricity Market Reform (EMR), which we believe will help achieve decarbonisation at least cost. Reform of the existing electricity market arrangements is necessary to ensure the market is capable of delivering the reliable diverse energy mix required to achieve the UK's energy policy objectives. We believe that the Government's proposals will provide the investment framework that is crucial for the low carbon investment that the UK needs, and will keep costs down for consumers.

Question 7: In particular, does the possibility of shale gas in the UK change the economics of the Fourth Carbon Budget?

Further investment in any unabated gas generation plant (whether fuelled by conventional or shale gas), beyond the minimum required to bridge the gap to new low carbon technologies, would introduce significant challenges in meeting the UK's climate change objectives. While gas fired generation has lower carbon dioxide (CO_2) emissions than old coal fired generation, it is still a significant source of CO_2 emissions in its own right (unless it can be equipped with carbon capture and storage).

We are therefore concerned by the Government's introduction of a new 200 gCO_2/kWh (in 2030) power sector carbon-intensity scenario in its Gas Generation Strategy (equating to 37GW of new CCGT capacity by 2030). We are concerned that it sends a mixed signal to industry. Investment in unabated gas generation plant substantially increases the risk that the UK's long term emissions reduction targets will not be met, or at least will not be met in a cost effective manner.

On the potential benefits of UK shale gas, we share the view that any UK shale gas production will not change the delivery path for achieving the UK's 2050 GHG emissions reduction target. We also do not believe that development of shale gas will have the same 'game changer' effect as seen in the US with regard to UK gas prices and energy costs. While we recognise that US shale has increased the volume of gas globally, our expectation is that this may only serve to curb the extent of price rises in the long-term, rather than drive prices down from current levels.

Question 8: Should the budget be tightened to reflect headroom due to significantly lower emissions projections (e.g. due to slower than expected economic growth) since 2010?

EDF Energy does not believe that the Fourth Carbon Budget should be tightened in response to the recession. There remains a possibility that the reduction in emissions has delayed investment in low carbon technologies and created a greater delivery risk for subsequent budgets. We believe that any headroom available would provide the required flexibility and contingency across all sectors of the UK economy. While recession has made it easier to meet carbon budgets, it is unclear if there has been a sufficient level of investment to permanently reduce emissions beyond 2020 to afford a tightening of the budget.

At present, decarbonisation of the traded sector (which is the sector most affected by slower than expected economic growth) is still dictated by the EU ETS, and so any tightening of the budget would simply increase the burden on the non-traded sector. As we stated in our answer to Question 6, much of the reduction in the heat and transport sectors can only be delivered in conjunction with the decarbonisation of the power sector.

We also believe that the issue of slower economic growth and associated lower emissions is one that exists across Europe, and is the underlying cause of the large surplus carried over into Phase III of the EU ETS. The divergence in actual emissions from ex ante cap projections in future phases could be addressed by the introduction of a supply side response mechanism as part of structural reform of the EU ETS. However, we do not believe the same approach should apply to carbon budgets. We believe there are distinct differences between a market instrument such as the EU ETS which needs to provide an enduring and permanent market signal that underpins cash flow for participants in the traded sector and five year carbon budgets that are used to inform policy responses over longer timescales across the UK economy as a whole.

C. Other issues

Question 9: Is there any new evidence to suggest that (incremental) impacts of the Fourth Carbon Budget on competitiveness, the fiscal balance, fuel poverty and security of supply have become unmanageable?

No. We consider that ample evidence on competitiveness impacts has been gathered at both UK and EU level, and targeted support mechanisms have been designed to address this. We believe the UK Government is right to proceed with measures now to provide targeted relief against the indirect impact of the EU ETS and the carbon price support mechanism to ensure the competitiveness of UK industry.

EDF Energy recognises that it is possible that some low carbon policies may have an indirect impact on energy intensive users through their effect on electricity prices. We therefore support the Government's proposals to assist those Energy Intensive Industries

(EIIs) exposed to international competition, and the risk of carbon leakage, as a result of the indirect costs of UK and EU climate policies. However, we would highlight that are many reasons why firms may wish to relocate production and agree with the Environmental Audit Committee's conclusion that "it is the overall cost burden, rather than energy costs in isolation, that help determine the risk of carbon leakage".

Question 10: Is there any new evidence on differences in circumstances between England, Wales, Scotland and Northern Ireland that suggest the need to change the budget?

We do not believe that there are currently any issues concerning the devolved administrations that would require the budget to be amended. However, at some stage the implications of the Scottish independence referendum will need to be considered, should separate GHG emissions targets be set.

Question 11: Is there anything else not covered in your answers to previous questions that you would like to add?

No.

EDF Energy
August 2013