

## Review of the Fourth Carbon Budget - Call for Evidence

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### Question and Response form

When responding please provide answers that are as specific and evidence-based as possible, providing data and references to the extent possible. Please limit your response to a maximum of 400 words per question.

#### Questions for consideration:

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

The Committee's advice assumes a climate objective to limit central estimates of temperature rise to as close to 2°C as possible, with a very low chance of exceeding 4°C by 2100 (henceforth referred to as "the climate objective"). This is broadly similar to the UNFCCC climate objective, and that of the EU.

In order to achieve this objective, global emissions would have to peak in the next few years, before decreasing to roughly half of recent levels by 2050 and falling further thereafter.

The UNFCCC is working toward a global deal consistent with such reductions, to be agreed by 2015. Earlier attempts (e.g. at Copenhagen in 2009, before the fourth budget was recommended or legislated) have failed to achieve a comprehensive global deal to limit emissions.

It is difficult to imagine a global deal which allows developed countries to have emissions per capita in 2050 which are significantly above a sustainable global average, implying the need for emissions reductions in the UK of at least 80% from 1990 levels by 2050.

The EU has not yet agreed a package beyond 2020, but the European Commission is consulting on a range of issues relating to development of climate and energy targets for 2030. In its 2011 Roadmap for moving to a competitive low-carbon economy, the Commission suggested a reduction in emissions of 40% on 1990 levels by 2030, as being on the cost-effective path to an 80-95% reduction by 2050. The UK Government has signalled its support for a 40% reduction by 2030, and for an increase to 50% in the context of a global deal.

China has made ambitious commitments to 2020 which would, if delivered, cut carbon-intensity relative to GDP by around 45%.

The United States could achieve its Copenhagen Accord commitment to reduce emissions by 17% on 2005 levels without the need for further federal legislation.

**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?**

ANSWER: No Comment

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

ANSWER: No Comment

**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?**

ANSWER: Although there has been some increase in the ambition of domestic climate policies undertaken in countries outside the UK and EU since the budget was set, globally we are still no closer to forming an equalised climate policy and carbon price. As a consequence trade with countries outside the UK with domestic climate policies should still be treated differently to intra-EU trade until such a time as an equivalent CO<sub>2</sub> price is applied to those traded goods.

For as long as industrial sectors do not face comparable CO<sub>2</sub> costs (in addition to other parameters which affect competitiveness in the various countries), the risk of carbon leakage will remain a key issue for operational and investment decisions because of the cumulative effect of climate and energy policies in the UK.

Assessing the contribution of major economies depends greatly on the comparability of measurement methods for CO<sub>2</sub> reduction as it is essential for global business operations to be able to assess CO<sub>2</sub> costs in an equivalent manner. This can only be achieved if a critical mass of participating economies are covered, comparable methodologies in assessing GHG emission reductions are imposed

and there are equivalent monitoring and reduction efforts in place.

If the cost of carbon emission reductions continues to not be comparable in the relevant countries, additional equalising measures may need further investigation.

Moreover, it should not be assumed that other countries and regions will follow the EU's example.

Climate change is a global challenge that needs to be answered collectively by all nations. In this quest, the main challenge is to motivate all stakeholders to take action, and the UK should take legitimate leadership in this debate but without isolating the UK and its manufacturing community.

To effectively facilitate a global deal and maintain leadership on the issue, one critical pre-condition is delivering the right price signal for carbon emissions and providing incentives to take action.

Therefore, whilst it is appropriate for the UK to outline what action it might take if others are willing to do the same, action to effectively establish a level playing field will have to be taken, as long as there is no firm commitment from all significant nations.

**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?***

**ANSWER:** We strongly believe that any new package must reconcile the challenges of Growth, Sustainable Development, Climate Change and Energy. Climate change targets should not result in conflicting and overlapping policies that confuse the end goal and create inefficiencies in the economic system. Any revised ambition must look at the cumulative and synergistic impacts of the suite of energy and carbon measures.

To promote business engagement, priority should be given to measures that facilitate growth, investment and innovation. For sustainable economic development and creating the right investment climate for reducing GHG emissions, industry needs, *inter alia*, stable and predictable carbon pricing and protection against carbon leakage

For the 4<sup>th</sup> Carbon budget period an integrated approach is needed which takes into account climate change, energy, industrial policy and resource efficiency. The

fundamentals should be addressed in such a way that:

- Predictability and stability should be guaranteed; for example interference in policies such as the EU ETS should be avoided to minimise the investment certainty that currently exists.
- A level playing field from both a geographical and a sectoral point of view is ensured;
- Long-term growth, jobs and investments in the UK are stimulated by maximising locally and responsibly sourced goods.
- Energy and Climate Change policies are not conflicting; for example unharmonised renewables/low carbon generation policies are currently distorting the carbon price.
- The balance of effort for GHG reduction is addressed; Thus far the non-traded sector has not been asked to contribute to the same magnitude as the traded sector.
- Carbon costs are not harmonised in the EU due to interventions at national level, such as the carbon price floor currently applied in the UK which may contribute to intra-EU distortions of competition. An intra-EU level playing field must be established across all sectors with comparable activities.

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

ANSWER: As described earlier no tightening of the budget should take place until a fully implemented international agreement is in place.

**B. Technology and economics**

In recommending the level of the fourth carbon budget, the Committee developed scenarios which embodied cost-effective emissions reductions to meet the 2050 target.

These scenarios, set out in detail in the Committee's report *The Fourth Carbon Budget – Reducing emissions through the 2020s*, include substantial investment in

low-carbon power generation, roll-out of low-carbon heat (heat pumps and district heating), development of the markets for ultra-low emissions vehicles and a combination of energy efficiency measures and fuel switching in industrial sectors.

They were based on official emissions projections together with an assessment of the cost and feasibility of abatement options. Since 2010, official emissions projections have been significantly reduced in the industry and waste sectors, meaning that meeting the legislated 4<sup>th</sup> carbon budget would require less effort than originally envisaged.

**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?***

ANSWER: Yes, in May 2013 the Committee on Climate Change (CCC) released its 'Reducing the UK's carbon footprint and managing competitiveness risks' report. The report states that the UK's Carbon Footprint has increased over the past two decades and whilst production emissions have fallen (21% between 1990-2010) emissions embedded in UK imports are estimated to have increased by 40% between 1993 and 2010. So the growth of consumption emissions has more than offset reductions in production emissions. This trend undermines the hard work and investment made by UK operators and even the CCC acknowledges that the UK carbon footprint would have increased more had production emissions not been reduced through fuel switching and energy efficiency improvements made by UK operators.

The evidence is compelling that the UK Carbon Budgets are now too narrowly focused, outdated and no longer entirely fit for purpose. However, by suggesting that the Carbon Budgets remain unchanged, the CCC has failed to properly address the recommendations of the Energy and Climate Change (ECC) Committee's report (HC 1646). The ECC select committee recommended that policy makers explore the options for "incorporating consumption-based emissions data into the policy making process". Furthermore, the ECC Committee concluded that "We are not convinced that consumption based emissions data are too complex or time consuming to gather, as Defra's work in this area shows".

So, if the evidence that consumption emissions are becoming an increasing problem and that collecting the information is not too complex, there is good reason to amend, or supplement, the Climate Change Act Carbon Budgets to account for 'embedded' or 'imported' emissions related to consumption. By enshrining in law greenhouse gas (GHG) accounting methods that take account of the whole UK footprint, the UK would show leadership in this internationally important policy area and set the benchmark for similar international developments.

The CCC's justification for retaining production based emissions is flawed. Firstly,

the CCC cite that consumption based reporting would be disruptive to international accounting conventions. Secondly, they claim that production emissions should be the focus because half of the UK footprint is imported emissions and there is less leverage to reduce the imported emissions.

The future of manufacturing in the UK is at stake so it is vitally important that the UK can properly measure what impact climate change, energy policies and other factors are having on the location of manufacturing. International reporting conventions do not have to be disrupted to properly account for emissions under the UK Climate Change Act and less leverage is not a good reason to ignore around half of the UK carbon footprint.

Surprisingly, the Committee on Climate Change claims that the cost of energy and climate change policies will not damage the competitiveness of British industry. **MPA disagrees.** The CCC has underestimated the environmental and economic costs of meeting the Carbon Budgets. UK industry will suffer from both EU and unilateral UK energy and carbon policy costs as other evidence has shown. Research carried out by ICF on behalf of BIS shows that climate and energy policy costs will be the highest for UK manufacturers compared to competing nations. ICF sector specific analysis shows that the UK cement industry will pay higher policy costs compared to the manufacturers of the same product in the principle competing economies. The ICF and MPA work is supported by other research carried out by KPMG which has shown that the UK ranks third in the Global Green Tax Index and first in the carbon and climate change list of 21 countries that are increasingly using green taxes in place of regulation or incentive schemes.

The energy and climate change policy costs calculated by MPA shows that for the cement and lime sectors the policy costs increase rapidly over the next few years and that only a fraction of these costs are eligible for compensation under the Government's Energy Intensive Industries package, thereby dispelling the CCC assumption that the compensation schemes are sufficient to offset the policy costs.

Furthermore the Committee on Climate Change incorrectly assumes that the EII compensation package is sufficient to protect UK manufacturers. The £250m EII package is a welcome first step but insufficient to prevent carbon leakage resulting from cumulative carbon costs. Government should be prepared to provide additional funds and/or reallocate funds from the indirect EU ETS compensation scheme to the CPF compensation scheme if there is a need.

Additionally, exporting the UK emissions problem has wider consequences than simply environmental. There is little doubt that as the UK increases its imported emissions embedded in the goods that it consumes there is an equivalent amount of jobs and economic benefit that is also lost to other nations. The UK Government has a social responsibility to avoid carbon and jobs leakage. This is important in the often rural communities that depend on mineral products industries such as cement and lime production. In this regard 'Responsible Sourcing' initiatives should be promoted, where locally produced goods are consumed locally for local economic

benefit.

In conclusion, there are compelling environmental, social and economic reasons to adopt consumption based Carbon Budgets in the Climate Change Act

**Question 7** *In particular, does the possibility of shale gas in the UK change the economics of the fourth carbon budget?*

ANSWER: Shale gas shows considerable potential in the UK. Experience from the energy market in the USA shows that shale gas availability to the market can have considerable economic benefits. Investigation of shale gas potential is therefore warranted.

**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?*

ANSWER: No, the 4<sup>th</sup> budget should not be tightened because of the temporary headroom delivered as a result of the economic crisis. Europe must have a competitive industrial base that is sufficiently dynamic to enable it to invest in climate change and maintaining cutting edge technologies. One critical lever for this is access to low cost, low carbon energy. In order to guarantee sustainable economic development and the right investment climate for reducing GHG emissions, industry needs, *inter alia*, stable and predictable carbon pricing and protection against carbon leakage.

### C. Other issues

As required by the Climate Change Act, in designing the fourth carbon budget we considered impacts on competitiveness, fiscal circumstances, fuel poverty and security of energy supply, as well as differences in circumstances between UK nations. Previous high-level conclusions on these were:



- **Competitiveness** risks for energy-intensive industries over the period to 2020 can be addressed under policies already announced by the Government. Incremental impacts of the fourth carbon budget are limited and manageable.
- **Fiscal impacts.** The order of magnitude of any fiscal impacts through the 2020s is likely to be small, and with adjusted VED banding and full auctioning of EU ETS allowances could be neutral or broadly positive.
- **Fuel poverty.** Energy policies are likely to have broadly neutral impacts on fuel poverty to 2020, with the impact of increases in electricity prices due to investment in low-carbon generation being offset by energy efficiency improvement delivered under the Energy Company Obligation. Incremental impacts through the 2020s are likely to be limited and manageable through a combination of further energy efficiency improvement, and possible income transfers or social tariffs.
- **Security of supply** risks due to increasing levels of intermittent power generation through the 2020s can be managed through a range of flexibility options including demand-side response, increased interconnection and flexible generation. Decarbonisation of the economy will reduce the reliance on fossil fuels through the 2020s and thus help mitigate any geopolitical risks of fuel supply interruption and price volatility.
- **Devolved administrations.** Significant abatement opportunities exist at the national level across all of the key options (i.e. renewable electricity, energy efficiency, low carbon heat, more carbon-efficient vehicles, agriculture and land use).

**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?*

**ANSWER:** Yes, as explained in the answer to Q6.

Evidence provided to the Environmental Audit Committee (HC699 EII Compensation Scheme) clearly shows that the cumulative burden of energy and climate taxation is becoming punitive and that the management measures (via compensation schemes) put in place by Government are inadequate and disparate.



**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?*

ANSWER: No comment.

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

ANSWER: Climate Change goals and the carbon budget should not be met by exporting manufacturing and importing goods that could have been produced locally. Climate change policies should be more closely linked to sustainable development and responsible sourcing. Local production for local consumption is a responsible and sustainable approach for the environment and the economy. UK climate change and energy policies should ensure that the UK takes responsibility for its own impact on the environment by ensuring that goods that are consumed in the UK are, to the greatest extent, manufactured in the UK. As such climate change policies need to be linked to a UK industrial manufacturing strategy which seeks to deliver security of supply of essential materials by maximising local production, increasing UK self-dependency for the goods that it consumes and addresses its social responsibility of not exporting environmental emissions and jobs.