

The Fifth 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.

This response is submitted on behalf of Baxi UK. Baxi began in the North West of England in 1866 and almost 150 years later continues to manufacture in the UK.

As a world leading manufacturer and distributor of innovative heating and hot water systems, Baxi is supportive of the roll out of whole house energy efficiency upgrades to the UK's housing stock in order to support the UK's decarbonisation objectives.

For any questions concerning this response, please contact Jeff House:

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Questions for consideration:

A. Climate Science and International Circumstances

Question 1 *The IPCC's Fifth Assessment Report will form the basis of the Committee's assessment of climate risks and global emissions pathways consistent with climate objectives. What further evidence should the Committee consider in this area?*

ANSWER:

Baxi believe that the CCC should draw on as wide an evidence base as possible and that this should include but not be limited to the IPCC's fifth assessment report.

Question 2 *To what extent are the UN talks in Paris likely to have implications for the Committee's advice beyond the pledges and positions announced in advance of the talks?*

ANSWER:

No comment

Question 3 *Based on the available evidence, does the EU 2030 package reflect the best path to its stated 2050 ambition? How might this package change, specifically its targeted emissions reduction, either before the end of Paris or after Paris?*

ANSWER:

Baxi welcome the EU 2030 package. In particular the Commission's communication "COM (2015) 80 final" of 25.2.2015 states that the most important feature of the EU 2030 vision is :

"...an Energy Union with citizens at its core where citizens take ownership of the energy transition, benefit from new technologies to reduce their bills, participate actively in the

market, and where vulnerable customers are protected”.

In addition, European legislation will be enacted and enforced by member states, therefore it is important that the UK takes firm action to achieve the objectives of the EU 2030 package. The UK should lead by example and push for other members states to do the same.

Question 4 *How does the UK’s legislated 2050 target affect its ability to support international efforts to reduce emissions, including its position in negotiations? Does the level of UK carbon budgets have any additional impact (over-and-above the 2050 target) for the UK in international discussions?*

ANSWER:

The establishment of a legislated 2050 UK target demonstrated the seriousness with which the UK took efforts to reduce emissions. By providing benchmarks towards the 2050 target, the carbon budgets are intended to show regular progress is being made and provide a level of predictability supporting investment for a low-carbon economy. However, it is important for UK credibility in negotiations and for investor confidence in the low carbon and energy efficiency markets that action towards the 2050 target is not continually postponed or watered down.

Baxi supports the Sustainable Energy Association’s proposal for an overarching plan for energy solutions in buildings which stretches across Government Departments and individual policies could make a significant contribution to the UK’s carbon reduction efforts and supports its international discussions.

B. The cost-effective path to the 2050 target

Question 5 *In the area(s) of your expertise, what are the opportunities and challenges in reducing emissions to 2032, and at what cost? What may be required by 2032 to prepare for the 2050 target, recognising that this may require that emissions in some areas are reduced close to zero?*

ANSWER:

Almost 150 years after its foundation, Baxi continues to manufacture in Britain and is proud to manufacture high efficiency domestic gas boilers suitable for homes throughout the nation. Thanks in part to the 2005 change to Building Regulations Part L and the legacy of an extensive gas network, the UK heating industry is a world leader in the adoption of modern condensing boilers and technology innovation. Baxi is developing the next generation of low carbon, energy efficient, heating products that will:

- meet customer expectations for warmth, instant hot water and running costs
- benefit from cost-reductions available through utilisation of existing gas supply infrastructure and the heating industry supply chain,
- contribute positively to electricity system challenges and secure emissions reductions regardless of the pace of grid decarbonisation
- be ready to roll out in the near future, not in 20 years' time

Technologies under development include Fuel Cells, Micro-CHP, Commercial Scale CHP, Hybrid Heat Pumps, Gas Heat Pumps, Solar Thermal and Heat Recovery.

Baxi believes that too often policymakers focus on supply side and major infrastructure however the demand side is of equal importance in this context and needs more robust policy.

By placing buildings at the heart of delivering carbon budgets, making them efficient, and using them to produce energy directly through low carbon and renewable sources, we will deliver more affordable, secure and low carbon energy for the UK. Using the Government's own "Pathways" calculator, analysis by the Sustainable Energy Association shows that this will cost the economy around £12bn per annum less than the Government's current plan. This is equivalent to a £189 saving per year, every year, for every UK citizen.

Baxi also feel that there is a significant skills/qualifications gap amongst tradespeople and those entering the plumbing and heating trade via apprenticeships whose working lives will span the period covered by Carbon Budgets. For example, the requirement for installations to be carried out to PAS2030 protocol has proved a barrier to cost-effective

involvement within Green Deal by heating installers and does not provide a guarantee of quality. Baxi has been engaged in discussions with DECC officials regarding reform to the Green Deal Installer standard without success to date.

Question 6 *What, if any, is the role of consumer, individual or household behaviour in delivering emissions reductions between now and 2032? And, separately, after 2032?*

ANSWER:

The Committee on Climate Change's recommendations for the fourth carbon budget placed energy efficiency and progress towards renewable heating as priority items. Clearly we need to make substantial progress towards the fourth carbon budget as a precursor to meeting the fifth, and this strengthens the case for an Energy in Buildings Strategy.

Perhaps the biggest challenge to overcome is in the domestic owner occupier sector as it is these properties that are hardest to regulate with the successes to date coming either through costly incentives (such as Feed in Tariffs) or regulation passed by Governments with powerful majorities (Part L change for Condensing Boilers 2005).

Minimum standards for installing modern high efficiency boilers have been in place since 2005 however there are at least 10 million non-condensing boilers still in regular operation. The least efficient examples are costing homeowners as much as £310 extra annually. Many of these systems are easily repaired and are therefore hard to reach via the usual replacement cycle.

Other than some pockets of activity with GDHIF, FiT & RHI there is very little impetus for owner occupiers to do anything meaningful with respect to carbon and energy efficiency, yet they represent the majority of dwellings. Implementation of EU legislation to require consequential improvements would have been a positive step to address part of this market. This particular legislation needs to be revived alongside activity to encourage much greater action from owner occupiers.

One policy which did have significant cut through to consumers was the "Boiler Scrappage Scheme". There is some analysis to suggest that it did not lead to additional installations (simply shifting volume) but it certainly caught the consumer imagination. Baxi would propose revisiting this idea, but perhaps with an enhancement to encourage true additionally, for example issuing vouchers only where a higher energy label can be applied (A+ or above) which would require greater intelligence of controls, or Microgeneration.

Whatever policies are enacted, education of consumers and installers in preparation for

mass market LZC roll out is essential and should start now. We can work from a strong policy lead to educate our installer base, let us not forget that the homeowner's technology decision is strongly influenced by the installer therefore their engagement is utterly critical but homeowners will need impartial advice to refer to. Smart metering and smart control, together with time of use tariffs will play a big role in helping change consumer behaviour post installation.

Question 7 *Is there evidence to suggest that actions to further reduce emissions after 2032 are likely to be more or less challenging to achieve than actions in the period up to 2032?*

ANSWER:

Baxi support the Sustainable Energy Association's view that it is important that we make the right decisions and take the right action now as this will impact carbon far into the future.. If we do not take action now then by 2032 the task will be far more challenging as we will have a shorter timescale in which to achieve the target and unless we act now we won't have an industry capable of delivery.

Policy certainty will help drive investment in technology development. Long term binding commitments, with real "teeth", and certainty are essential rather than the short term 5 year government cycle we seem to work with today.

Question 8 *Are there alternatives for closing the 'policy gap' to the fourth carbon budget that could be more effective? What evidence supports that?*

ANSWER:

Large-scale investment in the retrofit of the UK's building stock should be treated as a National Infrastructure Priority. 80% of dwellings in 2050 have already been constructed.

While significant numbers of measures have been installed in recent years, the inconsistent nature of policy means that challenges presented by our building stock still remain. The National Infrastructure Strategy lists investment in buildings as a possible infrastructure priority and Baxi is supporting the call for this to be Government's preferred approach , targeting 1m deep retrofits each year by 2020.

Question 9 *Are the investments envisaged in the National Infrastructure Plan consistent with meeting legislated carbon budgets and following the cost-effective path to the 2050 target? Would they have wider implications for global emissions and the UK's position in international climate negotiations?*

ANSWER:

There is a significant inconsistency in the National Infrastructure plan as a requirement for energy efficiency and distributed generation of renewable energies is not included.

Since the 2008 financial crash, the conversation around policies which are perceived to be “green” has changed; polling shows that public support for policy intervention depends on “value for money”. We further believe that the benefits of investing in buildings, and then integrating these buildings together, far outweigh the cost of investment.

C. Budgets and action

Question 10 *As a business, as a Local Authority, or as a consumer, how do carbon budgets affect your planning and decision-making?*

ANSWER:

Carbon Budgets provide a guide in planning and decision making, however the key driver is policy intervention. We would like to see Government adopt a similar long term approach with respect to policies designed to meet carbon budgets, rather than the current stop start approach in areas such as Green Deal and ECO.

Question 11 *What challenges and opportunities do carbon budgets bring, including in relation to your ability to compete internationally? What evidence do you have for this from your experience of carbon budgets to date?*

ANSWER:

No comments

Question 12 *What would you consider to be important characteristics of an effective carbon budget? What is the evidence for their importance?*

ANSWER:

Clear and stable long-term policy frameworks are required An overarching and binding plan for energy solutions in buildings which stretches across Government Departments and individual policies could make a signif

D. Other issues

Question 13 *What evidence should the Committee draw on in assessing the (incremental) impacts of the fifth carbon budget on competitiveness, the fiscal balance, fuel poverty and security of supply?*

ANSWER:

The Verco and Cambridge Econometrics report [*The economic and fiscal impacts of making homes energy efficient*](#) is a useful source of evidence. Its findings are summarised below.

The report ; [*An analysis of the impact of low-carbon policies on households, businesses and the macro-economy*](#) published by Cambridge Econometrics in 2014 provides a rigorous model-based assessment of the macroeconomic costs and benefits that could occur as a result of the UK putting in place the measures and changes required to meet the emission reductions proposed by the CCC in the first four carbon budgets. Drawing on the CCC's independent technical analysis, the evidence in this report suggests that meeting, or exceeding, the fourth carbon budget will result in net economic benefits for the UK, as well as the stipulated reduction in greenhouse gas emissions.

Question 14 *What new evidence exists on differences in circumstances between England, Wales, Scotland and Northern Ireland that should be reflected in the Committee's advice on the fifth carbon budget?*

ANSWER:

No comment

Question 15 *Is there anything else not covered in your answers to previous questions that you would like to add?*

ANSWER: No comment