

Independent advice to government on building a low-carbon economy and preparing for climate change

Minutes of CCC Meeting, 22/2/2019

Present were John Deben, Nick Chater, Piers Forster, Rebecca Heaton, Paul Johnson, Corinne Le Quéré, Chris Stark; Observer – Keith Bell

Conflicts of interest

The Committee met in private for a short discussion.

1. Net-zero report – overall update and international context

The Committee considered an update on how the overall analysis for the next-zero report was coming together, and the timetable for completing the analysis and agreeing key messages and recommendations.

The prioritisation of the net-zero work would have implications for other reports. Handling of these other outputs was discussed. It was agreed that the progress report, required in July and joint with adaptation, would focus on policy progress and how this compared with the requirements previously set out by the Committee. There would also be a requirement, under the Climate Change Act, to cover how the second carbon budget has been met. It was agreed that the sectoral analysis and indicators summary should be covered in a single slimmed-down chapter, and not as a separate chapter for each sector.

It is also likely that BEIS would soon request advice, also for July delivery, on a UK emissions trading scheme. Resourcing this work would be subject to negotiation with BEIS. The Committee agreed that this request would be met largely through consultancy support, working to the Secretariat and to the Committee.

In relation to the international context, the Committee reviewed progress being made across the biggest emitters worldwide – China, USA, EU, India. The Committee considered the timetable for strengthening of NDCs established by the Paris Agreement. The extent of commitments towards net-zero emissions emerging around the world, including European Commission proposals for net-zero all GHGs by 2050, were reviewed.

The Committee agreed that there were a number of strands of evidence which pointed to now being a good time for the UK to set a new long-term target.

2. Net-zero report – greenhouse gas removals

Reaching net-zero emissions is likely to require significant amounts of CO_2 to be removed from the atmosphere, to balance remaining emissions from agriculture, aviation and other areas than can't reach zero. There is a growing focus and evidence base on these options.

The Committee considered a presentation on the options, their costs, potential, challenges and UK comparative advantage.

The Committee agreed that presentation of the various options in the report should reflect distinctions that could be made between the degree of uncertainty that could be attached to each option; the potential for unintended consequences; the extent of technology development that has happened and is required. On this basis, there was some scepticism about the potential for

biochar and enhanced weathering. Direct Air Capture (DAC) looked rather different – it is at early stage. The existing evidence base suggests that it would not be appropriate to rely on it now, but there is potential that it *might* happen. Research needs to continue.

The need for carbon capture and storage (CCS) in relation to BECCS and Direct Air Capture (DAC) was noted.

3. Net-zero report – new industry analysis

In previous Committee analyses significant emissions in industry have been categorized as "hard-to-reduce". To an extent this has reflected a lack of evidence and the difficulty of assessing abatement options across a broad and diverse sector. New work commissioned to help inform the net-zero report (still ongoing) has identified potential to go further. This was presented to the Committee.

The scale of reduction potential now identified was substantially greater than in previous work. The Committee was comfortable with the reasons for this, which had focused on options related to the processes responsible for emissions (e.g. stationary combustion, off-road emissions, process emissions), rather than the industrial classification. The Committee also agreed with general principles proposed within the presentation, in relation to the timing of refurbishment cycles and requirements for policy support.

Emerging analysis relating to potential for resource efficiency was also considered and agreed as a source of emissions savings, though with questions remaining over costs.

It was agreed that Committee champions would continue to engage with the analysis as it firmed up, and that further consideration would need to be given to appropriate formulation of policy to secure the abatement identified.

4. Net-zero report – reducing UK emissions to net-zero

The Committee considered presentations relating to the emerging analysis of UK scenarios for getting to net-zero and how they could be delivered.

Options for abatement had been characterised into actions regarded as "Core" (likely to be needed in any serious effort towards reaching the existing 80% reduction target); more stretching options, some of which are likely to be needed for 80%, most or all of which for net-zero (actions that are harder, whether for reasons of cost or acceptability); and "Speculative" options, which may not be well understood now, and we would not want to rely on now, but which might turn out to be doable.

The Committee provided its views about the identified options across the sectors, in terms of whether they were correctly characterised, and the level and timing of UK effort that might be considered feasible and deliverable.

In relation to delivery of identified potential, the Committee agreed that the need for tighter regulation and enforcement should not be downplayed. There would be important messages too about the innovation and skills challenges ahead. Actions and engagement would be required across the whole of Government.