Minutes of CCC Meeting, 11/11/2016

Present were John Deben, Nick Chater, Sam Fankhauser, Brian Hoskins, Paul Johnson (items 1-4), John Krebs, Jim Skea (items 1-4), Matthew Bell

1. Measurement project

The Committee were updated, through a joint presentation by the National Physical Laboratory (NPL) and secretariat, on progress with the measurement project. The initial aims of the project were to further develop our understanding of how the greenhouse gas inventory is estimated, revisions to the inventory over time, and the key sources of uncertainty and gaps. The project would be going on to consider what that understanding means for the setting of carbon budgets and tracking of progress.

In discussing uncertainty, the Committee found the categorisation suggested by NPL useful – distinguishing statistical uncertainty within the current inventory methodology (Category A), from uncertain global warming potentials attached to different gases (Category B) and uncertainty in sources of emissions which might be included in future inventories (Category C).

It was possible to estimate uncertainties in the estimates for different greenhouse gases within the current inventory. The Committee suggested that errors might be correlated over time, and that this would have to be taken into account in judging the significance of any changes in estimates from year to year.

The Committee noted some of the key findings from the work to date, including: international comparisons suggest uncertainty in the UK inventory is relatively low; that uncertainty is relatively high in sectors/gases that are likely to be a greater share of remaining emissions as abatement takes place; that category A uncertainties have fallen as inventory methodologies have improved, but this still leaves significant uncertainties around categories B and C (e.g. inclusion of peatlands); that external validation of the inventory is important.

Implications of uncertainty for carbon budgets would be considered at a future meeting.

2. Aviation

The Committee was updated on two recent developments - the ICAO agreement to a global scheme for offsetting growth in international aviation emissions and the Government's recent announcement of support for a third runway at Heathrow.

On 6 October the ICAO states adopted the "Carbon Offsetting and Reduction Scheme for International Aviation" (CORSIA). Operators within the scheme will be required to purchase offset credits to cover emissions growth above 2020 levels. The scheme will run to 2035, on a voluntary basis to 2027, with a provision to review and extend.

Many of the details of implementation remain to be agreed before the scheme starts in 2021. These include rules for monitoring, reporting and verification of emissions, and criteria for offset eligibility. The Committee agreed that implications for carbon budgets were too early to judge, that

developments should continue to be monitored, and opportunities taken within its advice to Government (such as progress reports) to set out its views on the need for strong implementation.

In relation to airports capacity, the Government has now indicated its support for a third runway at Heathrow. It has published a business case with aviation emissions in a "central" case 6 $MtCO_2e$ higher than 2005 levels in 2050. This is inconsistent with the planning assumption the Committee has previously advised as appropriate – that aviation emissions should be held to the same level in 2050 as they were in 2005, without the use of international credits. Analysis on that basis has previously been accepted by the Government in legislating carbon budgets. The Committee's position was that availability of low cost international credits could not simply be assumed.

The Committee agreed that it should write to the Government to seek clarity on its position. The Government's detailed case for the third runway at Heathrow will be published in a National Policy Statement (NPS) in 2017. Either this NPS will need to clarify how the business case supports a third runway with UK aviation emissions held at 2005 levels, without the use of international credits, or the Government's Emission Reduction Plan will have to clarify how other sectors of the economy will reduce emissions further to compensate. It was agreed that given this possible wider implication the letter should be sent to BEIS.

A draft letter would be circulated for approval.

3. Small modular reactors

David Orr and Alan Woods (Rolls Royce) presented on prospects for small modular reactors in the UK.

4. Scottish and Welsh emission reduction targets

The Committee has been asked to provide advice to the Scottish Government, by March 2017, on issues including the accounting framework for its emissions targets, the nature of those targets (e.g. percentage reductions or absolute targets), and the appropriate levels for those targets.

The Welsh Government has also asked for advice, by March 2017, on accounting considerations, and on the level of its carbon budgets by around October 2017.

The Committee discussed principles for setting carbon targets on either a net or gross basis. Currently, carbon budgets adopt a mixed approach – the power sector and industries within the EUETS, net; other sectors, gross. So long as the UK is part of the EUETS, continuation on that basis is an option. Moving to a gross basis across the board could raise concerns over implications for internationally traded industry. The Committee would need to return to this at a future meeting.

Other design issues were discussed – annual or multi-year targets; percentage reduction, or absolute emissions; cumulative emissions and scope for banking and borrowing. There were pros and cons of different choices. Clarity and accountability were important. The Committee asked that 3 design options should be developed for further consideration at a future meeting.

In relation to the level of targets, the Committee has previously developed "central" and "high ambition" scenarios for Scotland which can be used to inform the advice. The Committee has been

asked that this advice should cover, in the light of Paris, targets for 2050 and beyond. The Committee agreed that the basis for any advice to Scotland, if it were to be different to that recently made to the UK Government, would have to be very clear.

The Committee agreed that calls for evidence on these issues, to inform its consideration, should be issued.

5. 2017 Progress Report

The Committee's next progress report, in June 2017, as required by the Climate Change Act, will be joint with adaptation. The Committee discussed key components of the assessment that it would like to see developed. It was agreed that the focus, in terms of mitigation, would be on assessment of the Government's Emission Reduction Plan.

The Committee agreed continued use of the approach to tracking progress embodied in the existing indicator framework. It was agreed that tracking indicators should be reviewed and extended to cover the fifth carbon budget period (2028-2032). The review of indicators should consider priorities for the fifth budget, preparation for 2050 (e.g. battery costs, supply chains), and cross-cutting issues (e.g. strategy for greenhouse gas removals, sustainable bioenergy). It was also agreed that summaries of the indicator hierarchy should be developed at sector-level, which would help to focus discussion within the report on key issues.

6. Prices and Bills Report

The Committee last published a separate report on energy prices and bills in December 2014. A further report was now planned for publication in March 2017.

The Committee discussed scope of the report. It was agreed to cover both residential and commercial/industrial consumers. As well as prices and bills in 2004, 2015/2016, 2020 and 2025, there was a request to include a more recent year. For the residential sector, analysis would cover changes in level of demand, different household types and fuel poverty. The Committee asked for illustrations of impacts on bills of take-up of different energy efficiency measures.

The Committee asked for further consideration to be given to inclusion within the report of costs of fossil fuels – such as for air quality – that are not currently reflected in prices.

For the business sector, assessment would consider different size of consumer and distinguish between users covered by different policy instruments. There would be a greater focus than in the last report on competitiveness issues. This would be informed by recently commissioned research to consider electricity prices internationally, and to consider opportunities for UK business as the world moves towards low-carbon.

Preliminary estimates of household energy bills, from on-going work, were presented. In presenting changes resulting from changes in energy demand, the Committee asked if the impact of energy efficiency measures could be separated out.

Industry/commercial energy bills would be presented at the next meeting.