Projections Advisory Group

Minutes for the 11th meeting, 24th September 2010

Present:

PAG Members

Jeremy Nicholson – EIUG
John McElroy – AEP
Chris Anastasi – UK ETG
Paul Gardiner – CHPA
Janet Coley – National Grid
Andrew Bassett – Oil and Gas UK
Andy Roberts – UKPIA
Will Steggals - UKBCSE
Mahmoud Abu-ebid – AEAT

Other Departments
Peter Coleman – Defra
James Hooson – DfT
Gavin Wallis – HMT

DECC
David Wilson
Simon Green
Marjorie Roome
Roger Lampert
Luke Davison
Helen Champion

Apologies
Andy Limbrick – AEP
Richard Leese – CBI

Chair
Rocio Concha – DECC

Introduction/ Matters Arising

Rocio Concha, Head of Strategic Analysis, chaired the session. All those attending introduced themselves.

The agenda for the meeting included:

- Presentation of the June 2010 published projections
- Potential revisions to econometric equations
- CHP post-2020
- Updating of load curves

Presentation of June 2010 Projections
Marjorie Roome and David Wilson presented some of the key assumptions and changes to these since the Low Carbon Transition Plan (LCTP) projections.

Members of the PAG enquired if industry were consulted about the manufacturing sector growth numbers. It was explained that these growth numbers come from the Treasury and that Treasury do talk to industry when making their growth projections. PAG Members suggested that there should be sensitivities on growth conducted.

PAG members enquired if the closure of the Teesside refinery had been accounted for. Members of the modelling team explained that as it is a small part of the UK refinery capacity. It was effectively assumed that its throughput would be processed at other refineries.

PAG Members asked about uncertainty in the CO_2 projections, and if more of the uncertainty is contained within the traded or the non-traded sector. Members of the modelling team explained that there is uncertainty in both parts of the projections, especially around the generation mix.

PAG members asked for an explanation for the profile of CO_2 prices assumed. It was agreed that a fuller explanation of the CO_2 price assumptions would be sent to PAG members after consulting with the relevant team in DECC.

PAG members asked if changes in fuel quality are taken into account on refinery energy intensity. The modelling team explained that reduction in sulphur content of road fuels and the changes to the marine fuel regulations are both accounted for in projections of refinery emissions.

Simon Green explained the differences between the June 2010 projections and comparable projections produced by Cambridge Econometrics. Please see the Appendix of this document for a detailed comparison.

PAG Members asked how the model accounts for limitations and supply chain constraints when looking at the new build of generating capacity. The modelling team explained that this issues are modelled through the implementation of maximum build rates for technologies.

PAG members questioned the merits of imposing that the 2020 renewable target is met within the model, as opposed to letting the model set the amount of renewables. There was some discussion of alternative scenarios exploring lack of delivery of policy. The modelling team took said they will look into this.

PAG members enquired what assumptions are made regarding the electrification of parts of the economy. The modelling team explained that currently the electricity demand changes due to the fact that the RHI are included but not the electrification of transport.

Other issues raised were

- The inclusion of the IED
- The upside gas demand risk
- The sensitivity of rebound effects

Potential Revisions to Econometric Equations

Marjorie Roome presented on the current set up of econometric equations within the model.

Some members of the PAG questioned the application of judgement to adjust some of the outputs from econometric equations to take into account shocks. Other members suggested that this was important to deal with some of the limitations of modelling.

PAG members asked about the expertise that the modelling team uses on the non-electricity side. The modelling team explained that the information on the demand side is fed into from several other models and other groups within DECC and other Government Departments.

CHP post 2020

Roger Lampert presented some illustrative scenarios for new CHP in the 2020s and asked for input and comments on the potential shape of the CHP market in this decade.

PAG members suggested that the outlook for CHP in the 2020s was likely to be policy driven in relation to zero carbon homes and the renewables obligation treatment of biomass CHP.

Comments were provided that heat networks are relatively high risk investments. There is the potential at existing sites to extend the capacity and the potential for CHP relating to CCS plants.

A wide range of views was provided, varying from the suggesting that CHP may fall off in this decade or, given sufficient incentives, there is still potential for expansion.

PAG members pointed out that high gas and electricity prices into the future may limit investment in industry where there may be the potential for CHP.

Updating Load curves

Simon Green presented on potential changes to the load curves.

PAG members agreed that it is important to try to take account of any changes in the shape of the load curve.
PAG members suggested using estimates of take up rates for automatic demand side management, such as smart fridges, and suggested that the potential for demand side management will be driven by technicalities.

The PAG also highlighted that the intermittency of generation is a related issue and suggested that if changes in load curves and intermittency are gradual, then the market should be able to adapt.

Appendix: Differences between Cambridge Econometrics and DECC models:

Cambridge Econometrics (CE) also publish projections of GHG emissions. CE's most recent projections showed emissions slightly exceeding the carbon budgets in the first and second budget periods and significantly exceeding the budget in the third period. This contrasts with the DECC model, which show emissions below the level of the budget in all three periods in our central scenario.

The DECC Energy and Emissions Model and the CE model are different models with different assumptions. A key difference is that the DECC model takes into account policies announced by the Government to be introduced by a particular period, while CE only include those policies which they consider have been 'set out in full detail'. Consequently CE's latest projections exclude the impact of the RHI, the CRC, the CERT and the FIT. If the impact of these policies (as assumed by DECC) is taken into account, CE's projections for carbon dioxide would be lower than DECC's for the second and third budget period.

Another key difference is the projection of non-CO2 emissions used. The DECC Energy and Emissions Model uses a projection from independent consultants AEAT, which shows a decrease in non-CO2 emissions over the projection period. This is consistent with the historical trend, which shows a fall in non-CO2 emissions every year since 1990. The CE projection of non-CO2 emissions increases by around 5% over the projection period. This is because CE have projected an increase in non-energy non-CO2 emissions in line with the official projection of an increase in the UK population 25. This approach is at odds with the historical data, which between 1990 and 2008 shows a 48% *fall* in non-CO2 emissions26, and a 7% *rise* in UK population27 .

Source: Updated Energy and Emissions Projections, June 2010, page 19