Electricity Market Reform: Consultation Document

A Response from the Advanced Power Generation Technology Forum (APGTF)

The Advanced Power Generation Technology Forum (APGTF) welcomes the opportunity to respond to the Electricity Market Reform Consultation Document (Cm7983) issued by the Department of Energy & Climate Change in December 2010.

Introduction to the APGTF

The APGTF is an industry-led stakeholder group that is not associated with any single interest or source of funding. It provides a consistent, long-term, proactive technology focus for the power generation sector in the UK on the research, development and demonstration activities for fossil fuels, with the main focus on carbon abatement technologies (CATs) including carbon capture and storage (CCS). However, it also provides a focus for associated technologies including: large-scale fossil generation >1MW; heat, including waste heat utilisation; CHP; biomass; hydrogen production from fossil fuels; and environmental control technology.

A broad range of interests is represented within the APGTF, involving power generators (E.ON UK, EDF Energy, Scottish Power, SSE), equipment manufacturers (Alstom Power, AMEC, Doosan Power Systems, Jacobs, Rolls-Royce, Siemens) and fuel suppliers (BP), and it has strong links with the relevant trade associations and other groupings (including the Association of Electricity Producers, BEAMApower, the Industrial Power Association, the Carbon Capture and Storage Association, Coalimp and COALPRO). There is also representation from the oil & gas sector (BP), consultancy sector and the research community. Government (DECC, BIS, UKTI and HSE) and the funding agencies (ETI, TSB and the Research Councils) attend meetings.

The objectives of the APGTF are to provide the strategic focus in the UK on near-to-zero and zero emission technologies from fossil fuel, biomass and associated technologies so as to ensure that:

- Strategies are developed and implemented within the UK and globally that support the UK's climate change goal of reducing CO_2 emissions both within the UK and abroad
- The UK has secure, clean, affordable energy as we become increasingly dependent on imported fuels
- UK industry has the technologies to allow it to take advantage of the UK and global market opportunities that will arise in the power generation sector
- Collaboration and knowledge sharing are promoted in the power generation and energy supply sector
- There is a significant contribution to UK wealth creation.

Response to the Consultation Document

Innovation or R&D does not seem to have been considered at all in the Consultation Document: It seems to be assumed that that there will be enough incentives in the market mechanisms to achieve decarbonisation and bring forward appropriate new and innovative technologies. However, there is still some uncertainty on how the follow-up CCS Demonstrations (ie Demonstrations 2-4) will be financed — details will not be known until after the Budget and, we suspect, a crystallising of thoughts on EMR.

This issue is most pertinent to the discussion in Chapter 6 'Implementation Issues', most notably to **Question 31 (bullet-point 4)**:

Question 31: Do you have views on the role that auctions or tenders can play in setting the price for a feed-in tariff, compared to administratively determined support levels?

[Bullet 4] • **Are there other models government should consider?**

The APGTF considers that there is currently very little incentive on power companies (or indeed others) to try out new technologies and, following any reform of the electricity market as discussed in the Consultation Document, there is likely to be even less incentive to innovate.

One possible solution to this undesirable consequence would be for the Government to require contributions to centralised, collaborative demonstration projects through the recycling a proportion of any capacity payments. For example, claimants of fossil fuel capacity could be required to contribute to one or two CCS demonstration projects: The same principle could be applied to, say, wind capacity claimants, where contributions could be required to demonstrations of deeper water / larger turbines etc. In effect, such arrangements would be similar to the (voluntary) **EPRI model in the USA**. The actual operator of the demonstrations might be subject to competition but the funding would be split between all generators.