



10 March 2011

Electricity Market Reform Project
Department of Energy & Climate Change
4th Floor Area E
3 Whitehall Place
London
SW1A2AW

Dear Sir,

AMEC welcomes the Government publishing consultations on Carbon Price Support and Electricity Market Reform¹ and the associated consultation on Carbon Floor Price² which is considered as part of the electricity market reform package (EMR).

AMEC is a focused supplier of high-value consultancy, engineering and project management services to the world's oil and gas, minerals and metals, clean energy, water and environmental sectors. With annual revenues of almost £3 billion, AMEC designs, delivers and maintains strategic and complex assets for its customers. The company employs some 22,000 people in around 40 countries worldwide.

We provide services across the UK's energy infrastructure including nuclear, renewables, conventional power, transmission and distribution, gas storage, combined heat and power and carbon capture and storage.

As a member of the CBI, CCSA, NIA, REA, Renewables UK, UK Hydrogen and Fuel Cell Association, and APGTF, AMEC has reviewed those responses and contributed in detail to some of them, broadly supporting the respective submissions covering the enabling of the low carbon electricity options of CCS fitted generation, Nuclear and Renewable energy.

In this response we will not repeat those detailed responses to the questions but comment on our broad view, the context and some key points.

- AMEC supports the intent of Government to provide consistency across large scale electricity generation to embed carbon pricing in the electricity market in a consistent manner, and to largely decarbonise the power supply, preferably aiming at the Committee for Climate Change's target for 2030.
- AMEC highlights that changes to the electricity generation sector are not isolated from competitive market decisions and urges that the principles and details of the EMR recognise the threats and opportunities that implies.

amec

Registered Office
Booths Park
Chelford Road,
Knutsford
Cheshire WA16 8QZ
Registered in England
no. 1675285

Key points

Main components of the EMR

The Feed in Tariff (FIT) is the main tool, with most likely a contract for difference (cfd) as the market reflective element, though many issues are raised about sound implementation including maturing technology costs. The transition and grandfathering from the ROC regime is a particular concern given that the Renewable Obligation has been a driver for wind power purchase agreements.

The Targeted Capacity Mechanism and Carbon Floor Price are key supportive components. With those tools in place, the suggested EPS is too confusing a measure to be a key driver, though it may be an internal Government measure. As an active component it risks confusing the market.

Carbon Floor Price

The trajectory of the floor price will be to the UK's advantage, even if above the average ETS price, if the certainty it gives to major investment business decisions is about equal to the uncertainty arising from fluctuations and cap setting in the ETS price for carbon. The UK may then stay competitive relative to the rest of the EU. Whilst there is a limit to the possible relocation of electricity generation this becomes more sensitive when direct emissions from non power use is addressed in the future.

The larger concern is of increasing asymmetrical international trade arising from embodied carbon in goods and services resulting in investment distortions due to apparently high carbon prices. Good CO₂ price transparency by the UK will need other international competitiveness actions and pro-active bilateral and multi-lateral agreements to ensure the UK is a competitive exporter and location for new investment.

Capacity Mechanism- within month

Given base load nuclear and (primarily) wind a capacity mechanism is most critical for mid merit generators and carbon capture, transport and storage (CCS) fitted plant, both fossil fuel and biomass, in particular due to the significant extra capital and marginally higher operating costs. Besides endorsing the CCSA's position, we add that the principles and details of the EMR should support high asset availability of all CCS assets³ to maintain the core power generation's ability to compete to provide reserve capacity.

Such supported CCS capacity, and spilled baseload nuclear and renewables, offer opportunities for use of surplus intermediate products (like hydrogen and heat) and electricity for other purposes. These provide negawatts and energy substitution for power, transport, heat and industrial use and lower net capital costs. They also have potential to help local community engagement and new business developments.

Low carbon – long term

Whilst the power sector contributes 31 per cent of total CO₂ emissions and 26 per cent of total greenhouse gas DUKES data also highlights the importance of natural gas to the UK, which we see being kept in the energy mix for the foreseeable future. Gas has a more important role for heat and responds to the strong seasonal variation for heating. Monthly gas demand for heat (excluding gas for generation) peaks at 2 Y, times electricity demand in winter, with a minimum below electricity low season demand. A multi faceted approach, besides the renewable heat incentive and insulation improvements, will be required to tackle this dependency.

Other initiatives seek to tackle oil dependency in the transport sector, with an increasing role for electricity. We see additional pathways are possible to support new electric drive trains.

What is done in the EMR will be important directly and indirectly beyond electricity generation, and we recommend that the incentives and disincentives of the EMR be tested against short and long term impacts in technology development, trade and energy substitution.

We agree the Government is right to address the electricity market to enable the UK's low carbon aims, ensure supply meets demand at all times, and get a lower cost for consumers as global energy prices increase. In doing this it can enable and test the future energy pathways for the transport, heat and industrial sectors.

[REDACTED]

[REDACTED]

¹ DECC- Electricity Market Reform- Consultation Document, December 2010

² HM Treasury- Carbon price floor: support and certainty for low-carbon investment, December 2010

³ CCS assets - the syngas treatment and front end capture for pre-combustion, the ASU and back end compression for Oxy and the back end on a post combustion plant, all the transport and storage costs except direct variable operating costs.