

## **Response to Consultation on Electricity Market Reform – Cm 7983 of December 2010.**

My response turns around the difficulty of forecasting the levels of centrally generated electricity that will be required in future decades and the implications of this for the pricing of tariffs.

The analysis of future demand (and therefore of future replacement generating capacity) fails to accommodate the probability of a shift from large scale supply of domestic (and some commercial and industrial) electricity to domestic/local supply – initially through solar (and to a lesser extent wind) generation; latterly through the increasing installation of micro Combined Heat and Power units. By some estimates, up to 50% of future domestic power needs could be met from micro CHP and this will substantially reduce the need for new, or replacement, large-scale generating plant. The neglect of this potential development is serious and shared with DECC's national policy statements on energy.

Hence:

### **Question 2. Do you agree with the Government's assessment of the future risk to the UK's security of electricity supplies?**

No, because it neglects the transformational prospects of decentralised power generation, in general, and of domestic micro CHP in particular.

The possibility of a significantly reduced requirement for centralised power generation in the future bears upon the prospects of the various support packages that are reviewed in the consultation document. Thus:

### **Question 3. Do you agree with the Government's assessment of the pros and cons of each of the models of feed-in-tariff (FIT)?**

No. The basic weakness in this assessments is the failure to acknowledge the substantial reduction in demands for large-scale power generation by 2030, or thereabouts.

Thus:

### **Question 4. Do you agree with the Government's preferred policy of introducing a contract for difference based feed-in-tariff (FIT with CfD)?**

No. If the contract for difference tariff level was set for 15 to 20 years (as implied in parts of the consultation document) it could lead to prolonged subsidies to power generators as the spread of decentralized power generation led to steadily falling demand for the output from large-scale producers. In such a case, the adoption of a premium tariff would have proved to be a safer public option, as the overall cost (to consumer and premium payer combined) would fall as the decline in demand led to reduced prices in the energy market. In the interim, however, the premium tariff should have encouraged the development of a reasonable level of new, or replacement, low-carbon, larger-scale generating capacity.

Such possibilities and considerations will, however, have further implications:

**Question 7. Do you agree with the Government's assessment of the impact of the different models of FITs on the cost of capital to low-carbon generators?**

The answer to this question will be significantly complicated by any awareness of the rapidly developing technologies of micro-generation. From a cynical perspective, the costs of capital are likely to be lower for those low-carbon generators that can demonstrate that the government and/or UK electricity consumers will be effectively locked in to the prospective generating facilities – by virtue of long-term contract or, in the case of nuclear power stations, the necessity to maintain them once they have become operational.

Overall, it is essential that any electricity market reform limits the liability of the government and the UK consumer to existing or prospective larger-scale generators and suppliers. Twenty years is now the absolute limit of any sensible forecasting horizon. The scale and pace of progress in micro-generation is such as to challenge any estimates of large-scale generating capacity beyond that limit. This serious consideration must bear upon many of the conclusions contained within the consultation document.

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