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## **LOW CARBON FINANCE GROUP**

### **Consultation on possible models for a Capacity Mechanism**

The Low Carbon Finance Group ("LCFG") is a group of senior renewable and conventional energy financiers from global equity investment funds, pension fund advisors, independent power companies and commercial and investment banks.

We welcome the opportunity to make a short submission to DECC's consultation on possible models for a Capacity Mechanism (CM).

LCFG submitted a response to the EMR Consultation in March. In this we reviewed the proposals against a set of factors that influence the ability to attract greater capital to UK low carbon investments at a much more rapid pace.

## **SUMMARY**

The introduction of a capacity mechanism represents a fundamental change in the electricity market. At this stage it is difficult to assess the impact of the different options in any detail, without further analysis and understanding of how these would fit within the electricity market operation as a whole. While the CM options may or may not affect CfD renewable energy (RE) directly, it will have a direct impact on the electricity market within which RE investments are being made.

Absent this broader understanding, as investors and lenders we are concerned that added complexity and heightened uncertainty will be increased during the period of transition and may lead to a continued hiatus in investment. This would be occurring at a time when accelerating investment momentum will be crucial if the UK is to remain on track to deliver its EU renewable energy targets in 2020, and other low carbon electricity goals.

It would be useful to further clarify the objectives of the CM. The higher wind penetration scenarios that underpin consideration of the CM, are likely to arise towards the end of the decade, at which point there will be greater understanding of interconnection plans with other countries, and the scale of back up this can provide as well as the demand side in the electricity market.

At this stage, therefore, we believe that more work needs done to enable an informed assessment of the objectives and design of the CM, focusing on the overall electricity market operation in the medium term. We suggest this should be assessed as part of the electricity systems policy DECC will develop next year.

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## **STARTING POINTS**

### **1. Integrated Approach**

We believe that the introduction of a CM is not just an "added element" to address the perceived narrowing of margin towards the end of decade as greater volumes of variable RE come on to the system. Rather it is a more fundamental intervention, which may have complex and potentially far reaching consequences on the operation of the current market.

It is appropriate to consider market operation, and the matter of capacity and balancing in an integrated manner, and on a market-wide basis.

In this regard, we believe more comprehensive data; modelling and analysis are needed to enable a fuller understanding of the timing, specific need, and possible outcomes of implementation.

This would also enable greater understanding of how the CM interacts with other elements under consideration, including: design and operation of the CfD regime; Ofgem's liquidity review, fundamental review of Cashout, and the UK-wide electricity systems policy that the White Paper indicates will be advanced in 2012. This would help provide visibility on the operation of the market as a whole.

In preparing this submission, the original intention was to assess the consequences of the different CM options against the criteria LCFG outlined in the original EMR submission (see Annex to this Submission). However, given the complexity of the range of variables we have focussed on overarching issues raised by the proposals.

### **2. Hiatus: avoiding maximum complexity during Transition**

The CM would be introduced at the same time as CfDs and the rest of the EMR package. This has the potential to contribute to create a period of maximum complexity and uncertainty in a market that is undergoing the transition from the RO regime to CfDs, already a substantive change.

Introducing an additional, independently complex mechanism (the CM) with uncertain interactions at this time also significantly raises the likelihood of unintended consequences.

We appreciate that DECC is consulting to avoid just this scenario, but as suggested above, a more integrated assessment of the CM in the wider market, prior to the choice of mechanism, would act to greatly reduce both actual and perceived risk.

### **3. Need for Clarity of Objective**

The starting point for the CM consultation is the challenge of resource adequacy, defined as sufficient reliable and diverse capacity to meet demand, with the example of winter anti-cyclonic conditions where demand is high and wind generation low for a number of days (other examples could include large-scale unscheduled outage of nuclear, or interrupted gas supply). In other parts of the White Paper and Impact

Assessment the objective also incorporates more general concern about falling capacity margins, and incentivising new generation more broadly.

The situation under which larger volumes of back-up are required, is most likely to arise when there are larger volumes of wind generation on the system: we anticipate this will be the case towards the end of the decade.

The system currently adequately manages short-term operational 'within day' changes in wind output through the balancing services under the Short Term Operating Reserve (STOR).

The White Paper does indicate the links and interactions between the STOR and a CM will be considered<sup>1</sup>, particularly where a STOR contract is for capacity capable of running for a longer sustained period, contributing to 'resource adequacy'.

It will be important to clarify the objectives, timing of implementation and design of a CM, as well as the extent to which the STOR can provide both a 'resource adequacy' service as well as balancing services as wind generation increases in the nearer term.

At minimum, we believe there is sufficient time (given the anticipated four year ahead capacity assessment period outlined in the Consultation) to complete the more detailed and integrated analysis of the electricity market that is suggested above.

#### **4. Interconnection**

The electricity systems policy planned for development in 2012, is due to cover the 'challenges around balancing and system flexibility', as well as the role of demand side, storage and interconnection.

This offers an important opportunity to consider longer-term plans for interconnection. The House of Commons Energy and Climate Change Committee report: 'A European Supergrid'<sup>2</sup>, considered evidence in this area earlier in 2011, including the potential to provide a substantive quantity of balancing services and energy trading opportunities needed to manage both 'within day' and a potentially longer period of backup capacity requirements, linked to wind variability.

The Committee's findings are that a 'supergrid' offers the potential to maximise the use of offshore wind, marine and tidal power; creates an optimised (and cost efficient) way of bringing offshore RE generation to shore (by avoiding each point of generation having an individual radial connection); while also enabling import and export across electricity systems. It can additionally contribute to overcoming some of the grid congestion issues currently hindering movement of power from Scotland to the South.

While interconnection does not of itself guarantee supply at times of peak demand, the Committee reports estimates that interconnection could provide 16 GW of flexibility by 2030 and 35 GW by 2050; interconnection would also bring a level of natural risk mitigation by ensuring that wind generation was spread across wind

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<sup>1</sup> EMR White Paper, Box 6, p64; and CM consultation C2.39.

<sup>2</sup> 'A European Supergrid, Seventh Report of Session 2010–12', House of Commons Energy and Climate Change Committee, September 2011. [www.parliament.uk/ecc](http://www.parliament.uk/ecc)

zones and weather systems. It also records evidence from National Grid indicating that around 10-15GW of interconnection “would enable the UK to transition to a low carbon energy mix in an affordable and secure manner”. This is notwithstanding the implementation of a CM.

Clearly issues for bringing this about are complex, not least the financing arrangements. However, as there are multiple drivers towards a ‘supergrid’ approach to offshore RE development and transmission, and initiatives to assess these are underway, it is a key element that should be incorporated in any energy policy scenarios used by government when considering the development of the wider electricity system through 2020 and beyond. .

## **5. Renewables**

It is not yet clear how RE generation receiving CfDs would be treated under the different CM options, although the information available suggests that generation with a CfD contract would not be eligible under a CM, perhaps with the exception of biomass. Any overall assessment of capacity needs would have to consider the role of CfD generation in providing capacity. A CM component is flagged up under the CfD section of the White Paper (White Paper, B53).

This raises a set of questions as to what this might mean in practice for renewable energy generators, both variable generation such as wind, and also biomass (a third ‘flexible generation’ category of CfDs is also mooted for consideration for the latter).

However, as above, the implementation of a CM will significantly impact the overall operation of the electricity market from 2014, including introducing a potential price capping scenario, therefore its evolution will be relevant to all generators (including those considering demand side or storage offers).

## Annex 1

### PRINCIPLES FOR ATTRACTING CAPITAL

This list of principles for attracting capital below were a central part of the LCFC submission on the Electricity Market Reform' in March 2011.

- Price stability and predictability, including
  - Long-term revenue certainty and visibility
  - Bankable markets and structures
  - Inflation-linked revenues
- A level playing field for all market participants, including
  - A power purchase obligation with a creditworthy counter party
  - Fair, reasonable, and equal balancing charges for utility and non-utility generators
- Simplicity and transparency

There are additional measures of interest to both Government and financiers:

- Affordability (important to Government, consumers and financiers in the context of overall stability of the policy environment)
- "0-60" speed, a measure of how long it takes financiers to become comfortable with the new regime and to commit to investments (important to Government for delivering public policy goals)
- Consideration of potential unintended consequences

#### Further Detail

**Long-term Revenue Certainty and Visibility:** Both debt and equity financiers strongly favour regulatory support mechanisms that provide long-term electricity price stability and visibility. It is central to creating bankable projects that will attract the longest term and lowest price capital. The longer, and more stable and visible, prices are, the lower the cost of capital, and the more likely banks and pension funds will invest and commit increasing allocations of capital.

**Bankability:** This refers to the willingness of banks to lend to projects. It is determined not only by the 'overall package' of factors, but also familiarity. Both debt and equity tend to favour policies and systems that they know and have been proven to deliver, not new and untried systems.

**Inflation Linkage:** Most of the pension and other institutional investors that Governments seeks to attract to the sector have long-term liabilities (pensions, annuities, insurance companies) that are linked to inflation. Therefore, they are increasingly seeking investments that are linked to inflation. Thus, a system that includes inflation linkage will attract more of this class of investors and will ensure higher allocations.

**Purchase Obligation:** As critical as price is a market for the power sold, price stability without an assured market or purchaser exposes independents (and their investors) to revenue risk there may be no buyer. If there is a possibility that a

developer faces this uncertainty after a project's Capital Costs are fixed, it will be impossible to invest.

**Level Playing Field:** ensuring that incumbent utilities do not have pricing advantages that undermine investment from new entrants.

**Simplicity:** This refers to lower barriers to entry for new investors in terms of ease of understanding of the regime and becoming comfortable with the asset class. A track record in other markets helps, as it is easier to explain to credit committees and pension fund trustees, who are the ultimate decision makers about the investment of funds.

**Transparency:** Whatever support system is chosen, it should have clearly defined policy goals and have a transparent mechanism for review and change. It must be seen as sustainable beyond the short-term (for example a parliamentary cycle). To retain confidence in the support mechanism, and for it to be an effective and continuing driver for investment, there has to be transparency regarding the rules under which it will operate. Any proposed changes must be consistent with the original objectives, where possible scheduled from the outset, and provide for suitable grandfathering.

**Affordability:** We understand Governments have concerns in wanting to ensure sufficient capital inflows without interested parties making returns that are considered 'too high'. Unless the system is affordable across the medium to long term, there is a high risk of amendment or change, which undermines market stability.

**0-60 Speed:** '0-60mph' can be defined as the speed of getting comfortable with the new system in the marketplace, reducing the time period of delay/hiatus. This adds greater confidence for government in the timing of investment and ability to meet public policy goals.

**Unintended Consequences:** Anticipating where possible, is important for market stability.

## Further Contact

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