

Electricity Market Reform Project  
Department of Energy & Climate Change  
4<sup>th</sup> Floor Area E  
3 Whitehall Place  
London  
SW1A 2AW

10<sup>th</sup> March 2011

Dear Sirs

## **Aggreko response to Electricity Market Reform consultation**

Aggreko welcomes the opportunity to respond to DECC's Electricity Market Reform (EMR) proposals consultation. The EMR proposals are a significant driver influencing our future operations in the GB electricity market. Their importance to our GB aspirations cannot be underplayed.

Aggreko is a FTSE100 company, headquartered in Glasgow, and is the largest provider in the world of temporary power with revenues of over £1 billion; we serve utilities in over 50 countries, providing flexible baseload and peaking solutions, with over 6GW of fleet.

We focus on the aspects of the proposals that are most pertinent to us. The headline messages that we want DECC to take away and reflect in the next steps of the EMR process are as follows:

### **Headline messages**

#### ***Flexible capacity is critical***

- Flexible capacity has an essential role to play to deliver security of supply in a **sustainable decarbonised generation mix**.
- Aggreko is strategically and operationally positioned to provide flexible capacity to the GB market. We can provide very large amounts of utility-grade power operational within weeks of contract.

#### ***Hasty action now is unnecessary, inefficient and risks market foreclosure***

- **Future requirements for flexible capacity are not known**; given that the actual mix of plant between despatchable / intermittent / inflexible is unknowable more than about 12 months ahead, and will alter radically as old plant comes off-line and new plant is commissioned, procuring anticipated capacity requirements now via long-term contracts will almost certainly be inefficient and costly for consumers. There will be considerable periods of either over- or under-provision.

- **Flexible capacity can be reliably secured closer to real-time**, when requirements are clearer. Hasty action to strike a series of long-term contracts is not needed and will simply foreclose the flexible capacity market to more responsive providers, including demand response. There is a global market for temporary, flexible power capacity, available at short notice and on short-term contracts which would allow the UK market to balance precisely the requirements for balancing services
- Procurement of flexible capacity must, like the capacity itself, be flexible in order to deliver efficiency and create a **competitive market for flexible capacity provision**.

***Decarbonisation and security of supply objectives must be considered holistically***

- Limited operation of flexible capacity with some carbon emissions is needed to deliver a sustainable low carbon generation mix. A **holistic view** must be taken when setting emissions limits to ensure that flexible capacity is able to respond when required by the system. Fast-start, flexible generation which can be despatched in seconds may be carbon-intensive, but it enables and supports much larger amounts of carbon-free capacity. The emissions calculations should take account of this.

**Challenges facing the GB energy sector**

Energy policy must give a renewed focus to delivering a secure, affordable and low-carbon energy sector. We fully support these policy objectives but recognise, as does the Government, the scale of the challenges that they create.

The generation mix of the future will be radically different from that of today. The pursuit of decarbonisation will significantly increase the penetration of low carbon generation, which may be intermittent and/or inflexible. In this context, flexible capacity will be essential for balancing the system and delivering security of supply.

But, expectations of limited operating hours and a short window for earning revenue place flexible capacity in a challenging financial predicament. Given its importance within a sustainable generation mix, it is critical that flexible capacity is adequately remunerated to ensure that it can participate in the GB market. We welcome the recognition within the EMR consultation of the importance of flexible capacity and the need to ensure that it is financially viable in the future.

**The challenge for Government, and our particular focus, is to ensure that the future arrangements enable flexible capacity providers to earn a return that justifies investment and operation within the GB market, while using the power of the market to deliver this capacity in an efficient manner.**

**Aggreko and our capabilities**

Aggreko is a global leader in temporary and flexible power generation, providing efficient and cost effective power plants. We can deliver flexible, cost-effective capacity at up to 400 KV that can contribute to security of supply as part of a sustainable generation mix. Critical characteristics of our capacity are as follows:

- Our capacity is operationally flexible. It can start (and stop) at the touch of a button, achieving full power output in 30 seconds.
- We can commit our units at short notice in response to changing capacity requirements. We can deploy 1GW of capacity into the GB market at 12 months' notice (with 6GW of capacity available globally). The assets can then be re-located or removed from the system as circumstances change.
- The Aggreko assets are cost-effective options. They are low capex and opex solutions relative to alternative peaking plant technologies and offer high efficiency even when part-loaded.

The success of our technology is backed by hard evidence from a range of international markets, including the following:

- We have over 6GW of capacity world-wide, operating in 100 countries
- We support utilities with both baseload and peaking plants in 50 countries
- We regularly deliver plant on extremely short timescales. For example, we have just delivered and commissioned 70 MW of gas-fired capacity in Bangladesh with 90 days of contract.
- We provide over 10% of total grid capacity in several countries
- We provide numerous summer seasonal peaking contracts, including projects of 60MW in Greece and 150MW in Oman.
- We provide responsive 'relief' capacity to meet short-term requirements. For example, during 2009 we supplied 750 generators within a 10 day period in response to a power outage in France.

In our view, there is 5-6GW of temporary generation capacity available within the global market that could be deployed into the GB market in 12 months. Aggreko is a key provider and can make the following available to the GB market:

- 250MW of capacity available within 90 days;
- 500MW of capacity available within 6 months; and
- 1GW of capacity available within 12 months.

**This flexibility must be accessible through the capacity mechanism.**

#### **Capacity payment mechanism**

A capacity payment mechanism (in some form) is put forward as the chosen tool for bringing forward the provision of flexible capacity. The mechanism must be developed on a 'no regrets' basis, providing flexibility while avoiding locking in expensive, long-term commitments.

There are several particular aspects of the design and administration of the capacity mechanism which must be fit for purpose. These include:

- capacity specification;
- capacity requirement; and
- capacity procurement.

#### **Capacity specification**

There is a clear need for flexible, responsive and reliable capacity in the future generation mix. Given the specifics of the requirement, we support the introduction of a capacity mechanism that exclusively targets and remunerates capacity that fulfils these characteristics. Remuneration of a wider categorisation of capacity diverts revenue to 'less useful' sources of capacity, weakening the incentives and the economic case for providing flexible capacity. Efforts should focus on defining the particular flexibility specification(s) that are needed and targeting the mechanism accordingly, while recognising that the balance of needs will change as the generation and demand mix evolves.

**A capacity mechanism should be targeted towards flexible, responsive and reliable capacity exclusively, with the nature of the requirement dependent on the system needs as they evolve.**

### **Capacity requirement**

It is accepted that flexible capacity is essential within a sustainable generation mix in future, but it does not need to be secured now. Future rollout of intermittent generation, demand growth and input fuel prices are all uncertain, making it impossible to predict future flexible capacity requirements with accuracy. Greater clarity will only emerge closer to real-time, as the balance of low-carbon generation becomes apparent.

As substantial quantities of flexible capacity – from generation or the demand side – can be made available with relatively short notice, it will be more efficient to secure it closer to real time in response to more reliable expectations of actual capacity requirements. Long notice periods and long-term contracts are not necessary for the majority of flexible capacity requirements. As already outlined, we can guarantee the provision of 1GW of capacity at 12 months' notice.

This means that it will almost certainly be inefficient and uneconomic for a single buyer to secure a significant proportion of capacity requirements on long-term contracts (e.g. 10 to 15 years in duration) on behalf of the market participants. To do so before capacity requirements crystallise risks locking in potentially excessive capacity, with expenditure being incurred to 'solve' a capacity issue that may not materialise.

**There is no need to take hasty actions now to secure flexible capacity for the future. Future capacity requirements are the subject of considerable uncertainty and flexible capacity can be reliably secured much closer to real-time when actual requirements are more accurately known. There is no immediate problem, and time should be taken to deliver a flexible procurement solution.**

### **Capacity procurement**

It is essential that capacity procurement is flexible to evolving conditions and reliance on long-term capacity contracts is avoided. If the flexible capacity market is effectively sewn up via long-term contracts with a single counterparty, alternative providers do not have the opportunity to participate. Long-term contracting, therefore, forecloses the market to alternative providers creating a barrier to competition and reducing the diversity of flexible capacity provision (in addition to being inefficient).

We see merits in a three-tier time horizon which provides flexibility in procurement and avoids locking in capacity that may prove to be an expensive unnecessary commitment:

- **short-term:** capacity committed up to 2 years ahead. This provides a route for securing capacity in the run-up to real-time to fine-tune flexible capacity holdings to meet known requirements.
- **mid-term:** capacity committed 3-5 years ahead. The majority of flexible capacity requirements can be reliably secured within this window when future requirements are more accurately known.
- **long-term:** capacity committed up to 10 years ahead. We envisage that only a small quantity of baseline flexible capacity should be secured over this timeframe, justified on a 'no regrets' basis (potentially accompanied by a demonstration of need against clearly defined, transparent and objective criteria).

This means that the market remains open to a wide range of potential providers and enables contracting to be shaped to resolve 'known' capacity issues closer to real-time. In our view, this flexibility will make capacity procurement more economic and efficient, as well as delivering more diversity in the sources of flexible capacity. In choosing between the various timescales, emphasis should be given to retaining flexibility.

**Procurement of flexible capacity must, like the capacity itself, be flexible in order to deliver efficiency and create a competitive and open market for capacity provision.**

### **Emissions performance standards**

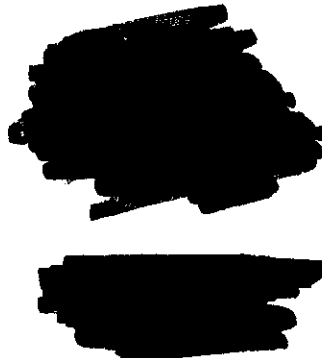
It is an unavoidable truth that much of the flexible capacity resource required to create a sustainable generation mix is, and will remain, carbon emitting. When considering emissions limits, a holistic view is required to enable delivery of a sustainable low carbon generation mix in aggregate.

As proposed, the suggested emissions performance limits could restrict the operation of flexible capacity sources, which will be counterproductive for the delivery of a sustainable low carbon future. This problem could be resolved by applying a limit on operating hours for higher carbon, flexible capacity (e.g. 750 hours per year, or a sliding scale of hours and emissions to avoid arbitrary limits), rather than a point emissions limit. This would restrict aggregate carbon emissions, consistent with policy objectives, without imposing individual plant limits that could restrict the operation of flexible capacity.

**Given the importance of flexible capacity in delivering a sustainable future generation mix, a holistic view must be taken when setting emissions limits. Flexible capacity must be able to respond when the system needs it and not be limited by an overly restrictive specific emissions limit.**

We are keen to work with DECC and the energy industry in developing electricity market reform proposals that support the delivery of a low carbon, secure and affordable energy sector which retains the market philosophy which is at the heart of the UK's energy policy.

Yours faithfully

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