Carlton House
26 Ellerbeck Court
Stokesley Business Park
Stokesley
North Yorkshire
TS9 5PT

Tel: +44(0)1642 714570
Fax: +44(0)1642 713742

Response to Electricity Market Reform Consultation
10th March 2011

Background

Carlton Power Limited is a UK independent power station developer and has managed projects in the UK and Europe since the company was founded in 1995.

To date, we have been involved with the construction of over 1800MWs of installed electrical capacity and a further 2380MW of consented plants in the UK.

Carlton Power believes that the current proposed Electricity Market Reform ("EMR") should deliver a competitive, transparent and open electricity market, with a particular focus on stimulating much needed liquidity. We comment below on specific questions raised by the Consultation Document of December 2010.

Summary

- ☐ The outcomes of the EMR will be the most significant changes to the Electricity market since full privatisation in 1999.

- ☐ Since 1999, the market has become dominated by the six 'vertically integrated' companies, which in turn has resulted in a wholesale market lacking in liquidity, as well as competition, transparency and ease of entrance for new companies.

- ☐ The UK market needs an estimated £200billion of investment in the next 10 years; this should come from a wide range of sources, which in turn will need a more competitive and liquid energy market before new investors engage.

- ☐ The 'Big 6' do not have the capital or the sources of new investment to fulfil the required investment needed for the UK electricity market .

- ☐ Much of the EMR assumes, and indeed requires, more market liquidity for the suggested changes to be effective.

- ☐ Greater liquidity increases competition and creates a more accurate and market-driven wholesale price. The long-term wholesale price is a key signal in both encouraging and enabling independent companies to invest in the construction of new generation plant.

- ☐ The UK needs additional capacity, and a secure capacity margin, but this should not be supplied by older, less efficient plants.

- ☐ The capacity market may well interfere with the wholesale market and should be separated and run separately.

- ☐ Carlton Power thinks the re-introduction of a self-supply licence condition (SSLC) would greatly help free up the wholesale market.

- ☐ Wholesale market conditions are heavily stacked towards the vertically integrated companies. The introduction of compulsory auctions would further open up the wholesale market and increase liquidity and competition.

Response to Consultation Questions

1. Do you agree with the Government's assessment of the ability of the current market to support the investment in low-carbon generation needed to meet environmental targets?

We agree with the Government that the current UK energy market is unable to deliver large scale investment on the scale required.

We agree that the cost of new nuclear and renewables (particularly offshore wind), to help replace aging generating plant and to cater for increasing electricity consumption in transport and other sectors, as well as the accompanying necessary enhancements to the grid, will be very high. As currently structured, the electricity market relies heavily for new investment on the balance sheets of the vertically integrated utilities (the "Big 6"). These balance sheets are not strong enough on their own to provide the required level of investment and new sources of investment will be needed to supplement the Big 6. We need to encourage international investors and funds to the UK market in order to deliver the required investment.

The UK lacks open and competitive retail, wholesale and generating markets. For instance, one of the Big 6 recently released preliminary annual results showing that it effectively recovered from itself an average clean spark spread (which is the excepted measure for cost of generation costs rather than fuel costs) of £11.60 per MWh for gas-fired generation. As the Big 6 charge broadly similar figures for their electricity to domestic consumers, it is reasonable to conclude that this is not atypical although it is hard to ascertain equivalent figures for some of the other vertically integrated companies. This amount recovered internally contrasts tellingly with a wholesale "market" that effectively trades with a clean spark spread at about £3-5 per MWh.

The large vertically integrated companies pay to their own power plants significantly more for the electricity they generate than they are prepared to pay on the wholesale market. The true cost of generation probably lies somewhere between this amount they are prepared to pay and the amount they themselves actually recover. The Big 6 can be flexible as to where they allocate profit and can use this ability to artificially lower the wholesale price and limit new entrants.

New entrants to the wholesale market could assist with the provision of the required major new generation but are inevitably discouraged by the lack of a genuinely competitive wholesale market which structurally disadvantages them. Whilst new start-ups can offer efficient and slimmed down business models, they struggle to compete in the current wholesale market that is severely lacking in liquidity.

Financial institutions also rely upon the existence of competitive markets to make assessments of the value of the underlying projects they are being asked to fund: project finance will not be attracted into a market that does not behave fully in accordance with open market signals. Potential new generators and project finance will find other international markets that offer more competitive certainty.

It is widely acknowledged that in 2015/16 when the Large Combustion Plant Directive takes effect, and coal and oil fired plant are forced off line, there will be a narrowing of plant ”margin”, i.e. the difference between supply and demand. In any open and competitive market the price of supply (generation) would increase as the supply/demand gap narrowed. The forward curve for electricity remains below the cost of new entry and there has been no market signal for new generation. In fact the opposite is the case, as prices are below the economic cost of building new plant. Against this background, the Big 6 are building new gas fired power stations and securing additional planning consents for further expansion.

As the EMR Consultation Document recognises, liquidity and the existence of clear price signals within the wholesale market are key to the proper working of the Feed-in Tariff and other measures put forward for consideration. Whilst liquidity is mentioned in the Consultation Document as an assumption to the modeling on which the EMR is based, the consultation itself fails to directly address any of the issues surrounding the current issues within the wholesale market and its liquidity.

Further incentivisation of renewable development, as well as new nuclear capacity, will not work in isolation to a full and proper reform of the wholesale market upon which the whole electricity sector pivots. Therefore the success of the EMR will depend on the extent to which the wholesale market is overhauled.

2. Do you agree with the Government’s assessment of the future risks to the UK’s security of electricity supplies?

We agree on the need for additional capacity, as well as the need to cater for the planned closure of current generation in the coming decade (around 19GW). However, we feel that the assumption of 20GW of new capacity in “construction or development” as stated in the Consultation Document should not be relied upon. Although the “development” of projects through permitting and licensing is a relatively low cost element which does not require financing, the finance required to ensure permitted plants are actually constructed will only be available if there is a transparent and competitive wholesale market. Since 2000 there has only been one new entrant who has managed to enter the UK market with a newly constructed power station (Dong Energy). This is set against the background of independent generators obtaining consents for new power stations but not being able to construct them and being forced to sell the developments to the Big 6 as happened at Marchwood, Langage, Teesside (Thor), and Abernedd. The market signal clearly says new generation is not a commercial investment. We suggest that new investment and development should still be regarded as being very much needed to ensure the UK’s security of supply in the coming years.

Renewables will only be able to provide a fraction of the needed capacity replacement, and the lead-in time of new nuclear makes it unlikely that this technology will be able to fill the estimated shortfall in the short to medium term. Gas powered generation remains the most affordable and the most environmental way to deal with the UK’s security of supply question because plant construction is comparatively fast. The UK has invested heavily in infrastructure to import gas, and is the obvious entry point for new independent generators to the UK market. New gas CCGT technology is also very efficient and so replacement of coal and older plants by gas offers a low carbon way forward in the short and medium terms.

14. Do you agree that the EPS should be aimed at new plant, and 'grandfathered' at the point of consent? How should the Government determine the economic life of a power station for the purposes of grandfathering?

Any new or higher standards of EPS that are applied to new build which affects more than unabated coal will severely hinder any investment decisions in the energy sector. It will therefore be important to set the EPS levels carefully.

Grandfathering new standards would also further accentuate the difference in competitiveness of new build, compared to the older and less efficient, and therefore higher carbon producing, plants.

However, Carlton Power feels that grandfathering is a minor issue, with the EPS standards and qualifying criteria more important to investment decisions.

19. Do you agree with our assessment of the pros and cons of introducing a capacity mechanism?

With the Government's targets for renewable likely to be met by intermittent technologies, such as wind, it will be necessary to have extra capacity to ensure security of supply. Because this capacity will only be required to run when other lower carbon forms of generation are unavailable, it will not present an economic investment case without some other form of incentive mechanism, such as capacity payments. It is important not only to set the right levels of capacity payment to make the investment economic, but also to ensure that the emissions profile of the capacity generation is in line with renewable and carbon targets.

It is also important that capacity payments, if introduced, are not used up by the Big 6 maintaining the oldest and dirtiest plants in their fleets. Rules around capacity payments would have to be carefully considered in order that they do not become another barrier to new entrants.

20. Do you agree with the Government's preferred policy of introducing a capacity mechanism in addition to the improvements to the current market?

Carlton Power believe that any capacity payments could have a distorting effect on the wholesale market and will be capable of manipulation in the hands of the Big 6 that both generate and sell in the retail market. Capacity payments should therefore not be available to vertically integrated utilities. In addition, Carlton Power are concerned that if capacity payments are offered to existing old or retired power generation, as potentially suggested by the EMR Consultation Document, it will result in higher emissions and more pollution than if payments are only made to new build generation. An overall objective of the EMR is to facilitate a move to a low carbon electricity market. To rely upon coal and other fossil fuel plants, which are otherwise to be phased out due to age (as well as in some cases under the Large Combustion Plant Directive) with the attendant high pollution and carbon emissions, is a retrograde and potentially counter-productive step.

Carlton Power would recommend that the peaking/capacity market be separated from the wholesale market, and welcome the suggestion that an obligation is placed on a central body to maintain a set capacity margin. The central body should procure capacity through long term tenders giving sufficient incentive to encourage new efficient build. Capacity payments and sales of peaking generation would need to be grandfathered to give security to investors. This level of targeted intervention in the market would also ensure that the anticipated capacity margin is met at the appropriate time which rightly is one of the concerns discussed in the EMR Consultation Document.

32. What changes do you think would be necessary to the institutional arrangements in the electricity sector to support these market reforms?

Whilst low-carbon tariffs and other incentives within the EMR process are important, ensuring a competitive, transparent and open electricity market is perhaps the most important issue of the consultation, with market liquidity being central to all those issues.

Greater liquidity increases competition and creates a more accurate and market-driven wholesale price. The long term wholesale price is a key signal in both encouraging and enabling independent (non-vertically integrated) companies to invest in the construction of new generation plant.

The current UK market is dominated by the vertically integrated utilities; this is bad for competition, bad for new entrants and bad for the consumer.

It is imperative that this review and the resulting legislation enact measures to improve competition within the wholesale market.

Carlton Power thinks the re-introduction of a self-supply license condition (SSLC) would greatly help free up the wholesale market. Putting a cap on retailers buying generation from themselves would expand the market and ensure greater transparency resulting in a more open and competitive market.

An SSLC would ensure greater competition between retail and generation. This would prevent the Big 6 relying on internal trading and would create a wholesale market that would be more open to investors and new entrants. It would also increase price transparency and ensure proper competition.

Currently, the wholesale market conditions are heavily stacked towards the Big 6, and new entrants struggle to secure short term contracts let alone medium or even long term ones.

Carlton Power would also endorse the introduction of compulsory auctions to further open up the wholesale market. This would oblige incumbent generators to hold periodic auctions of one, two, and three year ahead (peak and base-load) electricity products, giving new entrants greater opportunity.

These auctions would not need to be for large volumes of power, as it is more important to be regular and compulsory, as to both sell and buy power, which would introduce liquidity rapidly into the market.

The current domination by the Big 6 is not only bad for competition, in both the domestic and commercial markets, but also for the environment, as it gives a financial incentive to their older, dirtier and less efficient plant on the system. The decision as to which plant run in the UK at any time is not based on which are the cleanest and most efficient plant.

An SSLC would reintroduce a ‘merit order’ for power stations which would prioritise the most efficient and environmental plants to operate before inefficient and polluting plants which are run for more profit within the Big 6.