



ATCO Power Generation Ltd.

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3 October, 2011

Dear Mr Wieckowski

White Paper for secure, affordable and low-carbon energy
Response to Consultation on possible models for a Capacity Mechanism

ATCO Power welcomes the opportunity to provide its views in response to the consultation on possible models for a capacity mechanism, contained within the *White Paper for secure, affordable and low-carbon electricity*.

By way of background, ATCO Power is a world-class developer, construction manager, owner and operator of technologically advanced and environmentally progressive independent power generation plants. It has a solid record in joint ventures with a wide range of partners, including other generators, distribution companies, oil and gas companies and steam hosts.

The Company operates nineteen power plants with a combined capacity of approximately 5,000 megawatts (MW); sixteen by ATCO Power in Canada and in the United Kingdom; and three in Australia by ATCO Australia.

In the UK, the Company has an equity interest in, and operational responsibility for, Barking Power Station, a 1000MW Combined Cycle Gas Turbine generating station. Its participation in this facility started during the development phase more than 20 years ago when the electricity industry was privatised. More recently Barking Power Limited has obtained s.36 planning consent for the further development of an additional 470MW facility on an adjoining site.

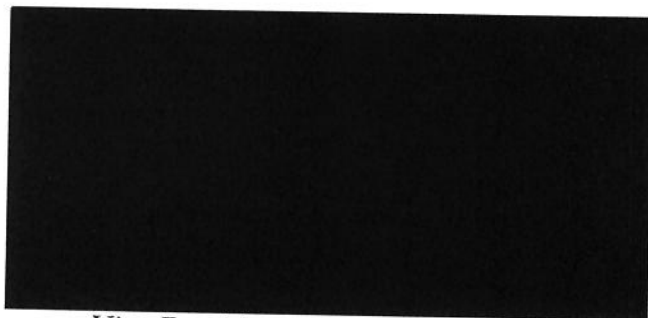
ATCO Power is a part of the ATCO Group of Companies. The Group is based in Alberta, Canada, and with more than 8,000 employees and assets of approximately \$11 billion, delivers service excellence and innovative business solutions worldwide with leading companies engaged in Utilities (pipelines, natural gas and electricity transmission and distribution), Energy (power generation, natural gas gathering, processing, storage and natural gas liquid extraction), Structures & Logistics (manufacturing, logistics and noise abatement) and Technologies (business systems solutions).

The stated key objective of the White paper is "*....to transform the UK's electricity system to ensure that our future electricity supply is secure, low-carbon and affordable.*" The current market arrangements, it is claimed, will not deliver the scale of long-term investment needed. Although three of the four elements of Electricity Market Reform have now been confirmed – Carbon Price Floor, Feed-In Tariffs CFDs and the Emissions Performance Standard – the fourth, the capacity mechanism, will be confirmed, along with the delivery institutions, in a technical update at the end of 2011.

Our comments in respect of the capacity mechanism are contained in the attached memorandum.

We do however also have serious concerns that these reforms will provide sufficient incentives for capital investment on the scale required. There remain significant barriers to entry and to further growth in the electricity generation sector without measures being taken to radically improve liquidity; whilst Ofgem is currently undertaking a liquidity review of the UK Electricity Market, it is entirely uncertain how any recommendations will be integrated with wider Electricity Market Reform. Without a clear route to market for independent generators, such as ATCO, competition will be stifled and opportunities to attract new participants and investors severely constrained.

Yours sincerely

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Vice President

Memorandum: ATCO Power Generation Ltd

White Paper: Consultation on possible models for a Capacity Mechanism

Summary

The initial Electricity Market Reform proposals recognised that a capacity payment mechanism was required to encourage security of supply through a mechanism which ensured an adequate safety cushion of capacity as the amount of intermittent (wind) and inflexible low-carbon (nuclear) generation on the system increases. Government modelling indicates that de-rated capacity margins will fall below 10 percent around the end of this decade. Whilst the initial Government proposal favoured a targeted mechanism, many industry respondents expressed strong concerns with that approach and preferred a market-wide mechanism – a position supported by ATCO.

Objectives

The challenges which the capacity payment mechanism is seeking to address are: 1) diversification of supply so as not to be over-reliant on any single energy source; 2) operational security to ensure moment-to-moment supply matches demand; and 3) resource adequacy to ensure there is sufficient and diverse capacity to meet demand.

In order to meet its objectives, the mechanism must provide a regular revenue stream which will, in turn, encourage greater investment in the types of capacity required.

Current Situation

The current situation is that the majority of generators earn revenue through the provision of energy and not for providing system capacity. Forward market forecasts indicate that insufficient margins are present to provide the investment signal to meet the absolute level of capacity required or the flexible capacity needed to support increasing levels of intermittent generation. The existing high levels of capacity margin in the short term reflect, in part, the slower than anticipated economic growth due to the recession although by the end of the decade a large proportion of coal and oil plant will close and the nuclear plants come to the end of their lives. As a consequence, capacity margins, without any change to the system, are predicted to fall below 10%.

Existing older gas fired combined cycle plant, including many of those owned and operated by independent generators, is currently providing the flexibility needed to ensure a robust system with an appropriate plant mix. However,

this class of plant is typically of lower thermal efficiency than more modern plant, and therefore is despatched rarely or at lower load factors with inadequate returns making them uneconomic to continue to generate. In the short-term much of this plant will inevitably either close or be mothballed.

National Grid currently addresses operational security through the procurement and operation of Short Term Operating Reserve (STOR) contracts which provide some, limited, relief for generators squeezed out of the energy market, but this is unlikely to fill the hiatus until an adequate capacity mechanism is introduced to support flexible operation.

Capacity Payment Mechanisms

Concern regarding security of supply has arisen through the realisation that higher capacity margins will be needed in future to cater for increasing volumes of intermittent renewable generation in the market. The capacity mechanism must provide strong signals for capacity to be made available to satisfy the future peak system demand and sufficient to support major investment in new capacity and to retain current flexible plant capacity. International participants in particular must be given clear signals that investing in the UK electricity market carries sufficient degree of certainty that the market regime will not be subject to continual change undermining the integrity of their investments.

The rapid emergence of renewables will further depress market prices discouraging conventional low capacity factor plant. National Grid requires, at any time, a diverse portfolio of different types of generation to balance the system, including thermal peaking, base load and mid merit facilities.

The targeted mechanism, originally favoured by DECC, has some serious drawbacks. By paying only a discrete group of generators for capacity the normal energy market becomes distorted as peak prices are effectively capped making returns earned inadequate. This is likely to cause the two markets to compete, adversely affecting the viability of plant not contracted in the capacity market. Existing plant will close, greater levels of risk will discourage new-build and the capacity market will, as a result, expand to maintain capacity margin (the so-called 'slippery slope' scenario). A politically driven despatch price mechanism could actually distort the market, creating further uncertainty and deterring investment.

Last resort despatch does not prevent government-supported generation facilities from displacing other forms of generation investment, nor does it provide any reassurance that, should high market prices prevail, additional capacity is not released on to the energy market for the sake of political expediency. A central procuring body will have to determine and take the risk for the volume and type of plant needed prior to going out for tender and in

doing so will need to provide the degree of certainty required to attract investors.

A general market-wide mechanism, despite reservations over the cost of implementation, will help to address the concerns that conventional generators currently face by substituting uncertain returns in the electricity market with long-term certainty from the capacity market. Such a mechanism avoids the 'slippery slope' as it encourages investment in all forms of generation, reducing concerns regarding generation returns. Further, in placing the capacity mechanism outside of the energy market it helps to avoid market distortion and disturbance.

Determination of the de-rated capacity will be critical to ensure that potentially punitive penalties and exposure to volatile markets is manageable. Whilst resource performance assessments are welcomed, the mechanism must take account of the statistical probability of forced outages and not set penalties at a level which undermine participation in the market and future investment. Wilful non-performance needs to be identified and treated quite differently from the inevitable and random outage events which can and will occur.

The key issue within the reliability market is the determination of the forward view of both the strike price and the reference market. The inability of the generator to extract peak revenue from the market will significantly influence the level of the required fixed capacity fee. However, the fixed price capacity fee, availability cash out charges and the setting of the strike price cap must be aligned to enable a satisfactory commercial risk and return balance to be achieved. In particular, the capacity fee must, over time, be permitted to respond to system tightness.

Participation and set-up of both primary and secondary markets will incur significant costs for both the generators and suppliers. The recovery of these costs for an independent generator is an area of concern. Details of the proposed design of the framework is required at the earliest opportunity to provide developers and investors with some certainty about future investment and to try to minimise any hiatus in investment brought about by a lengthy implementation process.

Conclusion

As the White Paper notes, *"It is clear that fossil fuels without CCS, especially gas, will also continue to have a key role to play in the coming years"*. Since the start of the consultation process, announcements of early plant closure and further delays to the nuclear new-build programme, make ever more urgent the need for speedy intervention to avoid further, potentially permanent, withdrawal of conventional generation plant from the UK market.

Signals to support, encourage and enhance market participation need to be communicated to generators as soon as possible to provide the certainty needed to enable businesses to plan and respond accordingly.

In addition, further promotion and development of enhanced liquidity in the wholesale energy markets, currently being reviewed by Ofgem, is essential for the effective implementation of a capacity mechanism to meet the needs of the industry.

ATCO Power would welcome the opportunity to continue to engage and participate with the development of the capacity mechanism as details become firmer.



3/10/11