CoalImp
Association of
UK Coal Importers

EMR Programme Team
Department of Energy & Climate Change
4th Floor Area D
3 Whitehall Place
London SW1A 2AW

23rd December 2013

Dear Sirs,

Electricity Market Reform: Proposals for Implementation

I am pleased to respond to the consultation on *Electricity Market Reform: Proposals for Implementation*, on behalf of CoalImp – the Association of UK Coal Importers. This response is mainly concerned with the Capacity Mechanism (CM), although we also have a few brief remarks on implementing Contracts for Differences (CfDs) in respect of Carbon Capture and Storage (CCS).

CoalImp represents major coal users (including most of the coal-fired generators in the UK), rail companies, ports, other infrastructure operators, and providers of ancillary services in the coal supply chain. The twenty one members (listed on the CoalImp website) account for the handling, transportation and use of the majority of imported supplies into the country, in turn representing the majority of all coal supplied to the electricity industry.

Those individual CoalImp members with the potential to participate in the CM and/or CfDs, and with associated high levels of expertise, will be responding in detail, answering the complete list of questions posed. The submission below concentrates in more general terms on what we see as the key points of concern, to ensure that coal plant can continue to play its part in keeping the lights on, at least cost to electricity consumers.

Yours faithfully

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Summary

- CoalImp believes that a capacity mechanism is an essential component of the future GB electricity market design and should be introduced as soon as possible.
- Existing coal plant is ideally placed to provide an economic source of capacity and would help to deliver security standards at lowest cost to the electricity customer.
- However, we have a major concern that the introduction of the mechanism in 2018/19 may be just too late to support the investment case for some coal plant.
- We believe that a minimum of four year contracts would be required to recognise the typical annual outage cycle, which would be needed for implementation of major investment programmes, in emissions reduction equipment, to comply with the Industrial Emissions Directive.
- By providing low cost, reliable electricity, existing coal can already address several of the most pressing issues facing the UK energy sector. CCS will mean it can also be low carbon.
- Whilst not a part of this consultation, the Carbon Price Floor is the 'elephant in the room' with regard to electricity market reform, and its steep upward trajectory should be reconsidered.
- In the design of Contracts for Differences to support CCS, clarity is urgently needed on recognition of the characteristics of the CCS chain (capture, transportation and storage), and taking into account variable fossil fuel prices as a significant operational cost.
- There should be a clear ambition to use CfDs to support coal CCS projects outside the current competition in order to advance the commercialisation of the technology.

Background

1. The UK currently relies on coal for around 40% of its electricity – up to 50% at peak times. Coal-fired electricity is the most secure and flexible low-cost capacity on the system; and with coal less than half the price of gas it is a key element in managing energy bills, fuel poverty and UK energy competitiveness.

2. UK coal resources amount to around 4½ billion tonnes[1], and the UK also has good access to imported supplies through well-developed port and rail infrastructure. Over 10,000 people are directly employed in the coal sector, including production, utilisation and infrastructure, with a similar number in jobs dependent on the sector. International coal supply complements indigenous supply with the security, flexibility and quality attributes of a highly liquid and diverse international market.

Affordable Coal

3. Coal is the world's fastest growing fuel, reflecting its affordability as well as its abundant supply across all continents. Coal accounted for almost half the increase in global energy use over the past decade[2] and in 2012 had the largest share of primary energy demand since 1970[3]. It is the cheapest fuel generally available worldwide, and consumption is expected to catch up with oil before the end of the decade[4]. The world has 1.3 billion people with no access to electricity[5] – resolving fuel poverty will rely heavily on coal.

4. UK consumers have been protected from the full impact of high prices of gas-fired electricity by the diversity of our power generation system, which can still benefit from the reliability, flexibility and relatively low cost of coal, the world's most abundant fuel. As electricity customers become increasingly concerned about their bills, the affordability of coal is a key factor in keeping energy costs under control.

5. Against this background, we believe that options still remain to preserve a critical mass of coal leading to a cleaner more secure future as part of a balanced energy mix. Without the right policies, the opportunity will be gone. Mines, ports and coal handling facilities will be closed (or converted to other uses), jobs/skills will be lost, and start-up costs will be too high to recommence in the future. The Capacity Mechanism is one of the policy areas with a potential to support low-cost existing coal-fired generation during the transition to a low-carbon future, when CCS projects should be supported by appropriately structured CfDs, alongside nuclear and renewables.

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[1] Coalpro/Coal Authority
[2] IEA – World Energy Outlook 2013
[3] BP Statistical Review 2013
[4] IEA – Medium-Term Coal Market Report 2012
[5] IEA – World Energy Outlook 2013

Carbon Price Floor

6. Whilst not a part of this consultation, the Carbon Price Floor (CPF) is the 'elephant in the room' with regard to Electricity Market Reform (EMR). This tax is unlikely to be effective in bringing forward new low-carbon investment, which is the role of the CfDs. It will, however, progressively inflate energy prices and threaten the continued ability of coal-fired generation to contribute to the UK's security of electricity supply. The escalating carbon price floor, combined with the need to invest to meet obligations under the Industrial Emissions Directive (IED), means many existing stations are likely to close – exacerbating security of electricity supply issues, foreseen by Ofgem as early as 2015/16[6]. The CPF will undermine the effectiveness of the Capacity Mechanism and make it more expensive.

7. Carbon savings from unilateral UK action can be illusory. In the case of the Carbon Price Floor there is no net CO_2 reduction, as any decreases in UK emissions are matched by increases elsewhere in Europe, within the overall EU cap. High electricity prices will damage the UK economy, despite so-called 'green growth', and will export carbon emissions and jobs. Imported goods from China and elsewhere rely on coal-fired electricity. The Committee on Climate Change estimates that, whereas reductions of around 20% in production emissions over the last two decades has limited growth in the UK's carbon footprint, when imported goods are taken into account, the UK's carbon footprint has actually increased by 10% or more.

8. The steep upward trajectory of Carbon Price Support should be reconsidered, especially as our competitors' energy bills are reducing with the near collapse of the European carbon trading scheme. This tax could double the UK price of unmitigated coal in the UK within a decade, with a consequent effect on electricity bills not seen elsewhere in the world. It also cuts across European and international efforts to develop effective emissions trading schemes.

Capacity Mechanism

9. CoalImp believes that a capacity mechanism is an essential component of the future GB electricity market design and should be introduced as soon as possible. The wholesale market is not rewarding capacity adequately and is therefore failing to incentivise the life extension of existing plant, or new build capacity, essential to delivering security of supply to the GB market over the coming decade. The situation is exacerbated by the prospect of market prices being progressively eroded by increasing deployment of subsidised non-firm renewable generation. A well designed capacity mechanism, focused on delivering the lowest cost solutions to meeting the identified shortfall, should ensure adequate capacity over periods of high demand, and mitigate the risk of price excursions.

10. We share the views of many in the industry that the Capacity Market (CM) should have the following key characteristics:

    - Be based upon market principles

[6] Ofgem – Electricity Capacity Assessment Report

- Be open to all new and existing plant
- Have a balanced approach to rewards and penalties
- Have sufficient longevity to enable investment
- Promote greater investor certainty (provide a bankable product)
- Focus on capacity adequacy (MWs on the ground) and leave the energy market to balance supply and demand.

11. CoalImp believes that existing coal plant is ideally placed to provide an economic source of capacity, versus new-build open cycle or combined cycle gas turbines (OCGT or CCGT), and would help to deliver security standards at lowest cost to the electricity customer. Therefore, it is essential that the design and implementation of the CM recognises the specific circumstances facing coal plant, in particular the timeframe for decisions regarding plant futures under the Industrial Emissions Directive (IED) and resulting investment programmes.

12. We have a major concern that the introduction of the mechanism in 2018/19 may be just too late to support the investment case for some coal plant. Given that a capacity gap is expected to develop earlier than this, it would be far better to accelerate the implementation of the CM rather than adopting temporary solutions with sub-optimal consequences.

13. Short term contracts (i.e. one year to three years) for existing thermal plants are highly unlikely to provide sufficient incentive or certainty to undertake capital investment for significant periodic outages, plant refurbishment, life extension, or the installation of IED related emissions reduction equipment. We believe that a minimum of four years would be required to recognise the typical annual outage cycle which would be needed for implementation of these major investment programmes.

    13.1. We also believe that the proposed contract length mechanism is prone to distortionary effects and could result in an inefficient outcome. It is proposed that for projects costing up to £125/kW the contract term will be one year, up to £250/kW will be three years and above £250/kW will be ten years. However, it is possible that a project cost will be around one of the thresholds, which could incentivise the generator to increase cost to ensure that the longer contract term is secured. In any case, setting the contract term to fixed lengths of 1, 3 or 10 years could result in higher cost and risk for projects that do not naturally fit into these durations. A better solution would be to allow generators to choose the length of the contract term so that the most cost-efficient term, balanced with the generator's risk appetite, could be offered.

14. The availability and specification of the refurbishment category will be key to ensuring that existing coal and gas plant can participate effectively in the capacity market, thereby avoiding premature closure or mothballing of existing capacity, and ensuring that customers are not forced to bear the costs of more new build than would be economically optimal.

15. There should be no requirement for environmental conditions to be introduced into the definition of plant refurbishment. These issues are already

reflected within the legislative, regulatory and policy framework within which the plant operates. The key parameter should be £/kW of capacity.

16. Generator members believe that the evolving design of the CM is becoming unnecessarily over-complicated (and doubtless this concern will be reflected in their detailed responses). Some are arguing that it would be better to focus on making the design as competitive as possible, and then refine it progressively based on operational experience.

    16.1. The whole issue of symmetry between rewards and penalties and over-delivery payments is a key feature of the debate. Initial feedback from the generators and financial community suggests that DECC's proposed penalty level range is too high, and would effectively make the market un-investable. Clearly, the risk/return parameters need to be carefully balanced to ensure adequate investment is attracted.

    16.2. Secondary trading of contracts is likely to be a key element of the functioning of the CM. However, there are concerns that liquidity in this market may take time to emerge. Therefore the penalty regime should be phased in carefully ensuring generators have adequate means of mitigating performance risk via the traded market.

    16.3. In terms of the level of the auction cap, we are not qualified to comment in detail, but the balance must be right. It needs to be high enough for the market to clear, but without having too high an impact on energy bills. Ensuring that coal plant can be part of the solution will keep costs lower than they otherwise would be.

Contracts for Differences to Support Carbon Capture and Storage

17. It is vital that the UK develops the technologies to ensure coal is used in a clean and fully sustainable manner as part of a secure and diverse energy portfolio. By providing low cost, reliable electricity, coal can already address several of the most pressing issues facing the UK energy sector. CCS will mean it can also be low carbon.

18. The UK still has an opportunity to take a leadership role with CCS, and DECC's own analysis shows it will be economic alongside other low-carbon technologies[7]. CCS is not only a key technology for carbon mitigation; it also provides an export opportunity for companies with an early-mover advantage. Proximity to huge CO_2 storage potential under the North Sea also makes the UK an ideal place to develop this technology.

19. CoalImp welcomed the Government's decision to move forward with two CCS projects in the UK, including the coal-fired White Rose Project in North Yorkshire, and the subsequent announcement of funding for the FEED study at Drax. This decision represents a positive step forward for CCS development in the UK.

[7] CCS Cost Reduction Taskforce – Final Report

20. Alongside the directly funded demonstration projects, further CCS projects should be developed with the support of CfDs, as well as nuclear and renewables technologies. Government should give a clear statement of longer-term ambition for coal with CCS, with commitment to appropriate support mechanisms. Coal has the potential to provide secure, affordable low carbon energy through to 2030 and beyond, but only with the support of an ambitious, Government led CCS strategy.

21. The Feed-in-Tariff with Contracts-for-Difference (FiT CfD) under EMR will be the key mechanism driving investment in low-carbon technologies, including CCS, renewables and nuclear. Developers of coal CCS projects outside of the current competition require access to CfDs, if these projects are to be constructed.

22. However, at present, details of the CfD mechanism are still awaited, to ascertain whether it would meet the necessary investment criteria needed to attract finance into CCS projects. There is also significant uncertainty over the market conditions required by developers to continue investing in projects. Clarity is urgently needed on:

- recognition of the characteristics of the CCS chain (capture, transportation and storage); and taking into account variable fossil fuel prices as a significant operational cost
- transparent and predictable allocation process for CCS, with details released as soon as possible
- a clear ambition to use EMR and CfDs to support coal CCS projects outside the current competition in order to advance the commercialisation of the technology
- an initial strike price which encourages swift investment.