CoalImp
Association of
UK Coal Importers

Eltham Lodge
154 Millhouses Lane
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S7 2HE

Gas Generation Call for Evidence
Area 4E
3 Whitehall Place
London SW1A 2AW

28th June 2012

Dear Sirs,

Call for Evidence on the Role of Gas in the Electricity Market

I am pleased to respond to the Call for Evidence on the Role of Gas in the Electricity Market on behalf of CoalImp – the Association of UK Coal Importers.

CoalImp represents major coal users (including most of the coal-fired generators in the UK), rail companies, ports and other infrastructure operators in the coal supply chain. The nineteen members (listed in the attached Appendix) account for the handling, transportation and use of the majority of imported supplies into the country, in turn accounting for over half of the UK's coal-fired electricity.

It is not appropriate for CoalImp to comment in detail on questions insofar as they relate directly to gas generation. Our members include most of the country's existing major gas generators, and they will of course be submitting detailed responses in their own right. However, the existence of this call for evidence and some of the matters contained in it also raise questions which are relevant to coal generation and its future in the UK's generation mix. In brief, it begs the question - why is there not a call for evidence on the role of coal in the electricity market?

We believe that the Government should complement its gas strategy with a similar review of the role of coal in the energy mix in order to develop a comprehensive fossil fuel strategy to 2030 and beyond, in which CCS plays an integral part.

Introduction

In 2011 coal generation supplied 30% of the UK's electricity and in peak times during last winter this level rose to well over 50%. Throughout the winter, coal provided over 40% of demand and even in early June 2012, coal was producing a higher proportion of electricity than gas. In the first quarter of 2012, coal burn at power stations was at a higher level than any equivalent quarter since 2006 – which itself was at a higher level than any equivalent quarter since the late 1990's.

Coal therefore provides a vital component of UK energy supply. In recent months we have seen generators switching between fuels within their portfolio to keep generation costs down. This has resulted in fuel switching from gas to coal and the UK consumer has benefitted as a result.

CoalImp firmly believes that coal with CCS should form an important and significant part of the generation mix in the long term and will contribute to the security and affordability of a de-carbonised electricity supply. For CCS to be rolled out at scale on a commercial basis, it is essential that the demonstration plants proceed as rapidly as possible. This is made all the more essential given the amount of new unabated gas capacity which is likely to be built, which must be retrofitted with CCS in due course to avoid long-term carbon lock-in.

It is also important that existing coal plants are not forced to close prematurely, as they are able to play a role in providing flexible low cost electricity during the transition to a low carbon economy. If there is some certainty that a significant part of the existing fleet of coal-fired stations will continue through the mid-2020's, together with the prospect of a new fleet of fully abated coal-fired power plant coming on stream at the same time, then coal demand will not fall below the critical mass needed to maintain coal infrastructure in the UK, with its associated benefits in terms of jobs and the security and affordability of electricity supply.

Questions

(a) What are the main strengths and weaknesses of gas generation in helping deliver a secure, affordable route to decarbonisation through to 2020 and then by 2050?

All fossil fuels are subject to future price uncertainty, but the sheer abundance of coal reserves worldwide, and the geographical diversity of those reserves, and of major coal exporters, would tend to support a view that coal prices are likely to remain consistently lower than gas prices.

However, it would be no more prudent of Government to pursue policies uniquely supporting coal as the fossil fuel of choice, than it is to pursue such policies for gas.

Coalimp believes strongly in the value of balance and diversity in the fuel mix. This could not have been better illustrated than over the last winter when coal stations provided over 40% of demand in response to high gas prices. It was an example of the market providing the best result for consumers.

Policies designed to drive coal out of the fuel mix (such as the carbon price floor and the prohibition on investment in new state-of-the-art high efficiency supercritical coal stations) will rob the country of the diversity offered by the current fuel mix, whilst only going part way towards the decarbonisation targets which will require CCS on <u>all</u> fossil fuel capacity.

Such an approach is not being followed by any of the UK's major industrial competitors. They are enabling a policy of continued improvement at coal-fired power plant where carbon emissions are incrementally reduced by moving, first, to higher efficiency boilers and, subsequently, to CCS. The EPS prevents the first stage in the UK, interrupts the chain of incremental improvement and makes the roll-out of a fleet of CCS-equipped coal-fired power stations significantly less likely.

(b) What role can gas-fired generation play in the future and what level of gas generation capacity is desirable?

It should not be a matter for Government to decide what level of gas (or coal) generation is desirable. The best solution for consumers would be delivered by the market determining the fuel mix consistent with carbon targets. To achieve this end it is important to maintain diversity in the fuel mix rather than being over-dependent on any fuel or technology.

Against this background, it should be recognised that the existing fleet of coal-fired power plant fulfils an excellent service in keeping the lights on at times of peak demand, when gas prices are high, or covering for output shortfalls elsewhere. It is important that existing coal plant should be able to continue to provide this service, albeit gradually diminishing, until suitable new low-carbon capacity (including coal with CCS) can take over this essential role.

(c) What are the key factors driving the economics of investing in new gas-fired power generation and how are these factors likely to change?

The Call for Evidence document rightly concludes that generation margins, and more specifically the high price of gas relative to coal, is the main impediment to investment. CoalImp does not see this situation changing, except to the extent that the price of coal is wholly artificially increased by carbon price support.

It surely cannot make sense that the only way to secure investment in unabated gas is for prices to be increased. CoalImp accepts that higher prices are needed to finance low-carbon generation, including CCS on <u>both</u> coal and gas. We cannot accept that high prices should be engineered to enable a switch from coal to unabated gas.

(d) What barriers do investors face in building new gas generation plants in the UK? What are the key regulatory uncertainties that may prevent debt and equity investors making a final decision in gas generation and supply infrastructure?

There is a clear need for massive investment in the period ahead to replace generating plant which will be decommissioned, and to meet

future demand. To maintain diversity in generation there should be investment in both gas and coal plant. But, opportunities for investment in new coal-fired power stations are restricted by

- The requirement to fit partial CCS (which does not apply to gas-fired plant);
- The effect of the carbon floor price on the non-CCS portion of capacity at any new coal-fired power stations;
- The need for CCS to be demonstrated successfully on a large scale; and
- The slow progress with CCS, which is likely to lead to more new capacity being (unabated) gas-fired.

CoalImp firmly believes that coal with CCS should form an important and significant part of the generation mix in the long term and will contribute to the security and affordability of a de-carbonised electricity supply. However, for CCS to be rolled out at scale on a commercial basis, it is essential that the demonstration plants proceed as rapidly as possible. This is made all the more essential given the amount of new unabated gas capacity which is likely to be built, which must be retrofitted with CCS in due course to avoid long-term carbon lock-in.

The Carbon Price Floor is also likely to have a very negative impact on generation from existing coal stations and makes investment decisions needed to meet the requirements of the Industrial Emissions Directive (IED) more difficult.

(e) Are there any other policy issues that need to be addressed beyond the Government's proposals for the capacity mechanism and the EPS?

CoalImp believes that the EPS is a flawed policy. Such an approach is not being followed by any of the UK's major industrial competitors. They are enabling a policy of continued improvement at coal-fired power plant where carbon emissions are incrementally reduced by moving, first, to higher efficiency boilers and, subsequently, to CCS. The EPS prevents the first stage in the UK, interrupts the chain of incremental improvement and makes the roll-out of a fleet of CCS-equipped coal-fired power stations significantly less likely.

The operation of the capacity mechanism needs to be spelt out in more detail. A Capacity Mechanism may represent a suitable means of enabling existing coal-fired generation to continue providing essential back-up, and if signalled early enough may prevent the premature closure of some coal capacity, as well as possibly supporting investment in Selective Catalytic Reduction (SCR) to meet the full NOx requirements of the IED. This is surely better economics than building new unabated fossil fuel plant for peaking purposes. Overall carbon emissions would be unaffected as these are governed by the overall EU cap.

There are many policy issues that need to be addressed to ensure coal continues to play a significant role without which secure, affordable and progressively decarbonised electricity generation cannot be guaranteed.

(f) Given the continuing role for gas and the potential for increased volatility in gas demand, to what extent is gas supply and related infrastructure a barrier to investment in gas fired generation? What impact will unconventional gas have on the case for investing in gas generation and the supporting infrastructure?

At the same time that Government concerns itself with the shortcomings of gas infrastructure, it is pursuing policies likely to undermine the existing highly efficient and effective coal infrastructure for both indigenous and imported supplies. (As well as policies discussed here it is also worth noting the damaging proposals from the Office of the Rail Regulator to significantly increase track-access charges for railborne coal.)

The overall size of the market for coal in electricity generation – whether in old or new plant - has major implications for the coal supply chain, including ports and railways. There is a real risk that if the overall market drops below a "critical mass", as existing stations close and before sufficient new stations with CCS have been rolled out, this infrastructure could be seriously diminished or lost.

Although indigenous coal supply is often cited as a key element in security of supply, it should be noted that coal imports complement this security in a number of ways:

- Indigenous coal output is, by its very nature, inflexible. By supplying the balance between indigenous production and overall market demand, imports provide this flexibility. This was clearly demonstrated in 2010 where the downturn in coal demand from generators fell entirely on imported steam coal supplies which were reduced by around 45% on the previous year, and again this year when imports have increased to meet the surge in power station coal demand. Indigenous production could not respond to this level of flex.
- The lower sulphur content of most imported coals will enable generators to manage the supply mix to meet the requirements of the IED. Even in the case of opted-in plant with flue gas desulphurisation, some would struggle to meet the relevant emission limit values from 2016 with a pure diet of high-sulphur indigenous coals.
- A similar consideration is likely to arise in respect of NO_x limits, although the relationship between coal quality and NO_x emissions is less clearly defined than in the case of sulphur.

- Geographical considerations and generators' concerns to maintain supply diversity are likely in any event to keep an element of imports in the mix, even at lower levels of overall demand.

If there is some certainty that a significant part of the existing fleet of coal-fired stations will continue through the mid-2020's, together with the prospect of a new fleet of fully abated coal-fired power plant coming on stream at the same time, then coal demand will not fall below the critical mass needed to maintain coal infrastructure in the UK, with its associated benefits in terms of jobs and the security and affordability of electricity supply.

Conclusion

This call for evidence begs the question - why is there not a call for evidence on the role of coal in the electricity market?

Coalimp believes strongly in the value of balance and diversity in the fuel mix. This could not have been better illustrated than over the last winter when coal stations provided over 40% of demand in response to high gas prices. It was an example of the market providing the best result for consumers.

It should not be a matter for Government to decide what level of gas (or coal) generation is desirable. The best solution for consumers would be delivered by the market determining the fuel mix consistent with carbon targets. To achieve this end it is important to maintain diversity in the fuel mix rather than being over-dependent on any fuel or technology.

Policies designed to drive coal out of the fuel mix (such as the carbon price floor and the prohibition on investment in new state-of-the-art high efficiency supercritical coal stations) will rob the country of the diversity offered by the current fuel mix, whilst only going part way towards the decarbonisation targets which will require CCS on <u>all</u> fossil fuel capacity.

We believe that the government should complement its gas strategy with a similar review of the role of coal in the energy mix. If there is some certainty that a significant part of the existing fleet of coal-fired stations will continue through the mid-2020's, together with the prospect of a new fleet of fully abated coal-fired power plant coming on stream at the same time, then coal demand will not fall below the critical mass needed to maintain coal infrastructure in the UK, with its associated benefits in terms of jobs and the security and affordability of electricity supply.

Yours faithfully

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APPENDIX

CoalImp Membership

Associated British Ports
Clydeport
DB Schenker
Drax Power
EDF Energy
E.ON Energy Trading
Fergusson Group
Freightliner Heavy Haul
GB Railfreight
Hargreaves Services
International Power
Network Rail
Oxbow Coal
Port of Tyne Authority
Rio Tinto Alcan
Rudrum Holdings
Scottish Coal
Scottish Power Energy Management
SSE Energy Supply