



Security of Energy Supply Team  
Department of Energy & Climate Change  
3rd Floor Area E  
3 Whitehall Place  
London, SW1A 2AW

8<sup>th</sup> February 2017

Dear Sirs,

**Coal Generation in Great Britain - The pathway to a low-carbon future:  
consultation document**

I am pleased to make a submission to the above consultation on behalf of CoalImp – the Association of UK Coal Importers and Producers.

CoalImp represents UK coal producers, major coal users, rail companies, ports and other infrastructure operators. The twelve members (listed on the CoalImp website<sup>1</sup>) account for the handling, transportation and use of the majority of UK coal production and imports.

I should make clear that the membership of CoalImp covers a spectrum of opinions on certain matters, with some members having principal and/or significant interests in sectors other than coal. The submission, therefore, represents a majority view, and should not be interpreted as being endorsed by each individual member.

CoalImp would, of course, be happy to engage further with BEIS on behalf of its members, as this process develops.

Yours faithfully,

**Nigel Yaxley**  
**Managing Director**

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<sup>1</sup> <http://www.coalimp.org.uk/5.html>

## Summary

- Following a period of high coal demand earlier this decade, the coal market has seen a major reduction over the last year or so, as a direct result of Government policies. The UK's unilateral Carbon Price Floor has caused the closure of coal-fired power stations, and very low levels of summer running at those that remain. These remaining plants, however, are proving all the more essential to meet winter demand.
- In light of recent developments, including capacity auction results, Government should review both its central and 'high coal' scenarios, both of which now appear unlikely. The reality, and indeed the optimum scenario, should lie somewhere in between; i.e. coal stations continue, albeit at lower load factors, as part of the transition, to contribute to security of supply until approaching the final end date chosen by Government, in light of realistic expectations about the build rate for new plant.
- Regulating to close unabated coal is relatively straightforward, but overcoming the complex web of regulatory, financing and practical hurdles to bring forward new plant is far more challenging. Building a new generation of gas stations cannot be viewed in isolation, but has to be considered alongside other infrastructure developments, at a time when the UK may seem a less attractive place for investment and may struggle to find the skills and materials needed. There is already construction risk surrounding Hinkley, and finance for all major new projects will carry an additional risk premium post Brexit.
- It is clear that a combination of Carbon Price Support, with the requirements of the Industrial Emissions Directive, already makes significant burn levels at most coal plant into the 2020's very unlikely. With this caveat, in CoalImp's opinion, either of the two options in the Consultation would put into effect the closure of unabated coal plant. CoalImp does not agree with the principle of establishing a constraint on coal generation in the years ahead of 2025. The two options proposed in the consultation already constitute 'belt and braces' to cater for the unlikely event of a 'high coal' scenario. Nothing further is required.
- As part of the Industrial Strategy, a holistic approach is needed – not simply a mechanism to destroy an entire industry, whilst stepping back and leaving the vagaries of the energy market to pick up the pieces. The fact that coal is a high carbon energy source should not colour perceptions of the commitment and skills of those who work in the sector. The coal phase-out will entail the loss of jobs across the coal supply chain, affecting coal producers, railways, ports, power stations and supporting industries. As part of the Industrial Strategy, policies should be considered which mitigate the impact of a coal phase-out on those businesses and geographical areas most affected. Ways should be explored to assist the people and associated skills involved in the coal supply chain to play a part in delivering and operating the new capacity required to replace coal.
- Coal is also an essential feedstock for the steel and cement industries, and remains a competitive fuel for industrial, commercial and domestic consumers, especially in areas which are not gas-connected. The impact on these other markets is completely ignored by the consultation. Coal is

an essential raw material in the production of steel, and metallurgical coal will therefore still be needed in the UK. In the case of the cement industry, the use of waste and low-value feedstock has already been maximised, and coal is still required for kiln stability. UK-produced coal makes these industries more competitive. Both customers and UK suppliers, in steel and other sectors, need time to adapt to the impacts of power station closures on coal supply and infrastructure.

## Introduction

1. Following a period of high coal demand earlier this decade, the coal market has seen a major reduction over the last year or so, as a direct result of Government policies. The UK's unilateral Carbon Price Floor has caused the premature closure of coal-fired power stations, and very low levels of summer running at those that remain. These remaining plants, however, are proving all the more essential to meet winter demand.
2. Notwithstanding the proposals contained in this Consultation to close all unabated coal plant by 2025, in the interim, coal plant remains an essential part of the energy mix, and is capable of providing the most economical and secure transitional power capacity in the UK. But there has been an unprecedented sudden, rapid and continuing collapse in the market for coal-fired electricity following the hike in the Carbon Floor Price (CPF) since April 2015. As well as seriously damaging the remaining indigenous coal production industry, the market collapse is also impacting upon rail and port infrastructure businesses.
3. Government has clearly taken credit for the collapse in the coal market – for example in a parliamentary written answer on 12<sup>th</sup> September <sup>2</sup>:

*"The role of coal for electricity generation has declined rapidly in the last couple of years due to the success of the Government's policies to penalise emissions of carbon dioxide and other pollutants and encourage investment in lower carbon alternatives."*

4. However, Government has taken little responsibility for the fall-out from these policies. As well as in coal mining, other businesses have been destroyed and jobs have been lost across the coal supply chain, affecting railways, ports, power stations and supporting industries.
5. The following sections in this response consider: coal's contribution to security of supply to 2025; ensuring an orderly transition to a low-carbon future; putting closure of unabated coal into effect; coal and CCS; and the wider impacts of coal closure; before considering each of the consultation questions in turn. (NB Most of the text in these answers duplicates text from the earlier sections.)

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<sup>2</sup> Written question – 45332: <http://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2016-09-06/45332/>

## The pathway to a low-carbon future – coal’s contribution to security of supply to 2025

6. At the start of the Consultation it is acknowledged that “*coal has historically played a very important role in meeting the UK’s needs for electricity*”<sup>3</sup>. This is clearly an uncontroversial statement. Likewise, the decline in coal use in recent years is also a matter of record, and has been driven largely by the impacts of a succession of policy interventions, most notably the Carbon Price Floor, especially when it doubled to £18/tonne CO<sub>2</sub> in April 2015.
7. It is also noted that coal generation in the first two quarters of 2016 fell to record lows.<sup>4</sup> It would, however, be premature at this stage to ‘write off’ coal as an important part of the electricity mix: low levels of coal burn in summer are not unexpected under current conditions. Even during the late Summer heatwave, however, coal was called upon to cater for high air-conditioning load combined with low wind availability.
8. Since the publication of the Consultation we have seen two developments which should give Government pause for thought:
  - Firstly, coal generation has increased during the winter months often to levels of around 20% of total electricity supply, demonstrating coal’s continued importance to the generation mix during periods of higher and peak demand;
  - Secondly, the capacity auction for 2020/21 took place in December 2016; once more, this auction awarded contracts to existing coal plant, demonstrating that coal remains the optimum economic solution until such time as it is closed by regulation.

When considering these outcomes, Government should also reflect that regulating to close unabated coal is relatively straightforward, but overcoming the complex web of regulatory, financing and practical hurdles to bring forward new plant is far more challenging.

9. Also, according to the *Financial Times*<sup>5</sup>, as a result of Ofgem’s review of embedded benefits, “*Scores of small power plants planned for the UK are at risk of being scrapped because of an overhaul of energy subsidies – an outcome that threatens to increase electricity shortages in coming winters.*”
10. This is against the background of the possibility of other, unforeseen circumstances, such as the outages at French nuclear stations and partial loss of the interconnector this winter, which illustrate the continuing need for coal stations in the medium term, until new capacity is built.
11. Government should therefore consider, as part of its Industrial Strategy, how the country can derive maximum value from its old coal plants before

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<sup>3</sup> Executive summary – first sentence.

<sup>4</sup> Paragraph 7

<sup>5</sup> *Financial Times* 24<sup>th</sup> January 2017 - “*Scores of planned UK power plants could be scrapped after subsidy change*”

they close. CoalImP believes that existing coal plant is ideally placed to provide an economic source of capacity in the medium term, helps to deliver security standards at lowest cost to the electricity customer, and is strongly preferable to the construction and operation of diesel engines.

12. Coal generators also have an important and unique role to play in terms of providing vital ancillary services to the energy grid, such as frequency response, inertia and 'black start'. These services, historically provided by large, flexible coal plant, are vital to the smooth operation of the UK's electricity system. The closure of a number of coal plants means such services will become increasingly scarce over time. They are currently worth £1 billion to the UK grid, estimated to rise to £2 billion by 2020<sup>6</sup>.
13. In light of the comments above, including on the recent capacity auction result, CoalImP believes that Government should review both its central and 'high coal' scenarios. Both of these scenarios now appear unlikely. CoalImP agrees that the 'high coal' scenario is unlikely to transpire – there seems little likelihood of further coal stations opting in to the Industrial Emissions Directive (IED) in the context of the current level of carbon taxation. However, there would appear to be risks to security of supply in relying too heavily on the central scenario, which assumes all coal plants will have closed by 2022.
14. Surely, the reality, and indeed the optimum scenario, should lie somewhere in between; i.e. coal stations continue, albeit at lower load factors, as part of the transition, to contribute to security of supply until approaching the final end date chosen by Government, in light of realistic expectations about the build rate for new plant. This 'optimum' scenario should form the basis of the 'orderly transition' to a low carbon future, discussed in the next section.

## **Industrial strategy – ensuring an orderly transition to a low-carbon future**

15. In the Executive Summary it is stated that "*Government wants to see an orderly transition away from unabated coal generation*".<sup>7</sup> CoalImP is strongly supportive of the concept of an orderly transition, but is unconvinced that Government's aspirations for this are met by the proposals in the Consultation.

### *Risks of premature and disorderly coal closure*

16. The Consultation is principally concerned with putting closure of unabated coal into effect in the event of a 'high coal' scenario and appears to assume that markets (including the capacity market) will ensure security of electricity supply as coal is phased out. In this regard, the 'high coal' scenario (coupled with the 2025 enforced end-date) would appear to offer least risk to security of supply. As stated above (para 13), CoalImP

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<sup>6</sup> *The Telegraph*, 27 June 2016 "*Balancing demand 'could cost National Grid £2bn'*," <http://www.telegraph.co.uk/business/2016/06/26/balancing-demand-could-cost-national-grid-2bn/>

<sup>7</sup> Executive summary – paragraph 6

believes the central scenario entails greater risks, associated with the build rate for new capacity.

17. During 2016, a dramatic and unprecedented collapse in the coal market took place, with major effects on coal supply and infrastructure. A continuation of this trend could cause a chaotic and disorderly transition away from coal, well in advance of the timescales foreseen in the consultation, threatening security of electricity supply in the later years towards 2025. The possibility of such an outcome is exacerbated by the rhetoric surrounding the coal phase-out, and its impact on investment decisions across the supply chain.
18. As coal plant approaches its anticipated closure date, renewal expenditure is likely to be stopped, and any major failure will probably result in closure rather than repair. Equally as coal wagons are scrapped or converted to stone use, and bulk berths are converted, e.g. to cruise terminals, the supply chain will not necessarily remain available.
19. The Capacity Market is designed to ensure adequate generation capacity is available – some of which will continue to be coal – based on the outcome of the latest auction for 2020/21. However, unless coal is actually burnt each and every year until then, there is no mechanism to preserve the coal production and supply infrastructure, which cannot survive without orders.

#### *Risks in new build assumptions and timetable*

20. Key to the orderly transition is the ability for new generation capacity to be delivered on time; it is clearly not sufficient simply for the market signals to be in place – building new capacity on time also needs to be a practical proposition. CoalImP is not expert on the question of future build rates, but notes doubts previously raised by ImechE<sup>8</sup>, and other commentators, pointing to the challenge of building enough new capacity to meet a 2025 deadline.
21. Government has based its build-rate assumptions on a 2014 report, commissioned from Parsons Brinckerhoff<sup>9</sup>. The Executive Summary of this report is peppered with comments which call into question its relevance today, and in a post-Brexit world, for example:
  - *"It should be noted that the maximum feasible build rate described in this report is independent of economic constraints and considers only technical and procedural constraints..."* (para. 2.1)
  - *"The most significant factors affecting how much CCGT and/or OCGT will be constructed and become operational in any given year are economics and policy. However both of these factors are outside the scope of this study."* (para 2.3)

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<sup>8</sup> Institution of Mechanical Engineers - *Engineering the UK Electricity Gap*:  
<http://www.imeche.org/docs/default-source/position-statements-energy/imeche-ps-electricity-gap.pdf?sfvrsn=0>

<sup>9</sup> Parsons Brinckerhoff - *Coal and Gas Assumptions*  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/315717/coal\\_and\\_gas\\_assumptions.PDF](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/315717/coal_and_gas_assumptions.PDF)

- *"It should be noted that finance availability is outside the scope of this report."* (para 2.5)
22. These concerns are surely exacerbated by the additional uncertainties brought about by Brexit, probably not taken into account when this Consultation was originally conceived. In a submission to MPs on the BEIS select committee, EDF has said Britain would have to import goods and skilled labour from around the world in order to make the *"very substantial investments in new infrastructure"* needed to keep the lights on. *"There is a risk that restrictions on trade and movement of labour will increase the costs of essential new infrastructure developments and could delay their delivery,"* it said.<sup>10</sup>
23. Building a new generation of gas stations cannot be viewed in isolation, but has to be considered alongside HS2, and Hinkley Point C etc. as well as developments elsewhere in the world, at a time when the UK may seem a less attractive place for investment and may struggle to find the skills and materials needed. There is already construction risk surrounding Hinkley, and finance for all major new projects will carry an additional risk premium post Brexit. The multinational companies, traditionally relied upon to build new power stations, have increasingly stretched balance sheets, and may decide to invest scarce resources elsewhere in Europe.
24. In response to the Government's industrial strategy green paper, published on 23<sup>rd</sup> January 2017, the chief executive of the Balfour Beatty construction group, said that it was not merely a case of skills, but numbers. *"The UK simply doesn't have sufficient skilled workers to deliver all the infrastructure projects earmarked for the 2020s,"* he said. *"This skill shortage is not unique to construction."*<sup>11</sup>
25. This issue surely lies at the heart of industrial strategy. In these circumstances it is negligent to disregard the people and associated skills involved in the coal supply chain (mining, infrastructure and generation) many of whom could play a part in delivering and operating the new capacity required to replace coal.

#### *A holistic approach to industrial strategy*

26. In her Foreword to the Industrial Strategy green paper<sup>12</sup>, Prime Minister Theresa May talks of a Plan for Britain that *"will help to deliver a stronger economy and a fairer society – where wealth and opportunity are spread across every community in our United Kingdom, not just the most prosperous places in London and the South East."* She goes on to say, *"Underpinning this strategy is a new approach to government, not just stepping back and leaving business to get on with the job, but stepping up to a new, active role that backs business and ensures more people in all corners of the country share in the benefits of its success."*

<sup>10</sup> *The Times* 24<sup>th</sup> January 2017 – *"Brexit risks pushing up Hinkley cost, EDF warns"*

<sup>11</sup> *The Times* 24<sup>th</sup> January 2017 – *"May strategy 'is golden opportunity missed'"*

<sup>12</sup> Building our Industrial Strategy – Green Paper January 2017 – page 3

27. This approach seems lacking from the Consultation under consideration here. A holistic approach is needed – not simply a mechanism to destroy an entire industry, whilst stepping back and leaving the vagaries of the energy market to pick up the pieces. The fact that coal is a high carbon energy source should not colour perceptions of the commitment and skills of those who work in the sector – most of whom are based in the very areas and communities cited by the Prime Minister.

### **Putting closure of unabated coal into effect**

28. It is clear that a combination of Carbon Price Support, with the requirements of the Industrial Emissions Directive, already makes significant burn levels at most coal plant into the 2020's very unlikely. Indeed the IED requirements and timetable set out in the Consultation<sup>13</sup> already imply a progressive reduction in load factors and subsequent phase-out of most plant. This is what underpins the Government's central scenario.

29. The Consultation makes clear that *"the assumptions underpinning the 'high coal' scenario do not reflect established Government policy of expectation and are designed only to demonstrate the risks that investors may perceive"*<sup>14</sup>. CoalImp agrees that this 'high coal' scenario is unlikely to transpire, and therefore believes that the consultation proposals are somewhat redundant.

30. With this caveat, in CoalImp's opinion, either of the two options in the Consultation would put into effect the closure of unabated coal plant, as defined in the consultation.

31. However, Option 1<sup>15</sup> contemplates the potential for demonstrating CCS on a proportion of a station's capacity, which in CoalImp's view is so unlikely as to be something of a red herring. The first CCS competition highlighted the challenges of fitting CCS to an old coal plant and these challenges have surely increased as more years have elapsed. There is a further concern that associating the CCS concept with old, inefficient power stations, in this way, could damage the case for a properly funded programme for new coal with CCS, which CoalImp believes should still be pursued via new policy proposals (see para 39 ff. below).

32. The design principles for both options essentially involve applying new plant standards to old plants to precipitate their closure. This can be construed as undermining the principle of 'grandfathering' on the basis of which gas plants have been built, and may be built in the future. It increases the regulatory risk associated with investment in any new plant and so cannot be described as 'sound regulation'.

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<sup>13</sup> Paragraph 13

<sup>14</sup> Paragraph 24

<sup>15</sup> Paragraph 37 ff.

### *Constraint in years ahead of 2025 closure*

33. CoalImp does not agree with the principle of establishing a constraint on coal generation in the years ahead of 2025. As stated above, the combination of Carbon Price Support, with the requirements of the Industrial Emissions Directive, is already putting the closure of unabated coal into effect. The two options proposed in the consultation already constitute 'belt and braces' to cater for the unlikely event of a 'high coal' scenario. Nothing further is required.
34. The added uncertainty of an additional constraint could clearly also impact on the ability of coal plant to contribute to security of supply via the Capacity Market.
35. Whilst CoalImp understands Government's arguments for the 2025 backstop date, adding further complexity to regulation ahead of this date is surely excessive 'red tape'. Given the challenges to building sufficient replacement capacity in time for the 2025 deadline, security of supply would benefit from the maximum possible flexibility in the market before this date.
36. Government is already moving more quickly than the rest of the world in phasing out coal and needs to take a pragmatic approach to ensure security of supply.

### *Ensuring Security of Supply*

37. The consultation states that "*Government is clear that ensuring a secure supply of electricity to families and businesses is not negotiable*"<sup>16</sup>. This is surely sufficient basis on which to make provision for the Secretary of State to retain powers to be able to temporarily suspend the closure date if necessary. The risks to security of supply do not only arise from too slow a rate of new gas build. Recent events, with French nuclear power stations and with the cross-channel interconnector, demonstrate that significant unexpected perturbations to electricity supply can occur, not all of which are predictable.
38. In order to minimise the impact on the investment climate for new capacity, it would be necessary to ensure that the decision could only be taken in light of a genuine concern about security of supply, and not simply to frustrate the intent of the proposals.

### **Coal and CCS – an important part of a low-carbon future**

39. The consultation cites international climate change leadership as a consideration of Government<sup>17</sup>, and the timing of the initial coal phase-out proposal to coincide with the Paris Climate Conference was clearly not coincidental. However, the abandonment of the CCS programme by Government, around the same time, surely undermines any sort of

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<sup>16</sup> Paragraph 54

<sup>17</sup> Impact Assessment – paragraph 26 ff.

leadership position the UK may have wished to hold from its coal phase-out policy.

40. Following the Government's withdrawal of funding for the CCS competition at the end of 2015, there was a chorus of disapproval around the decision, together with reiteration of the importance of CCS, and calls for a new policy. CoalImp strongly endorses these calls, such as in the 'Oxburgh Report'<sup>18</sup>, and believes that this must be a fundamental element of Industrial Strategy in the future.
41. Most commentary on CCS now concerns gas, as it is set to become the UK's principal source of baseload electricity. A new 'dash for gas' could resolve short-term power shortages caused by premature coal closures, but would 'lock in' CO<sub>2</sub> emissions for decades in the absence of rapid progress with CCS.
42. CoalImp believes that a strong case still exists for new coal-fired CCS. With the jury still out on any realistic large-scale development of UK shale gas, over-dependence on imported gas risks security of supply and/or higher prices, and ignores the climate impact of methane losses in the supply chain.
43. Coal resources are super-abundant and are spread across all continents. Proven world coal reserves amount to around 900 billion tonnes, equivalent to over 100 years supply at current rates of usage, with the largest reserves in the USA and China<sup>19</sup>. Climate change is a global phenomenon and requires a global solution. The UK accounts for less than 2% of global emissions, and the EU only 11%. The largest emitters are the largest coal users with the largest reserves – there is no solution to climate change which does not include a solution for coal.

### **Wider impacts of coal closure**

44. It should not be overlooked that the coal phase-out will entail the destruction of an entire industry. Remaining jobs will be lost across the coal supply chain, affecting coal producers, railways, ports, power stations and supporting industries. As part of the Industrial Strategy, policies should be considered which mitigate the impact of a coal phase-out on those businesses and geographical areas most affected.
45. Consideration of UK coal mining in the impact assessment is cursory and naïve<sup>20</sup>. Despite the large falls in production outlined, surface mining remains an important employer and contributor to the local economy in some areas, predominantly in Scotland, Wales and the North of England. Contrary to what is stated, the final closure of power stations, whenever this occurs, will clearly have an impact on mines that supply them.

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<sup>18</sup> Report of the Parliamentary Advisory Group on CCS:

[http://www.ccsassociation.org/index.php/download\\_file/view/1043/508/](http://www.ccsassociation.org/index.php/download_file/view/1043/508/)

<sup>19</sup> Source – BP Statistical Review of World Energy 2016: <https://www.bp.com/content/dam/bp/pdf/energy-economics/statistical-review-2016/bp-statistical-review-of-world-energy-2016-full-report.pdf>

<sup>20</sup> Impact Assessment - paragraphs 36 and 37

46. Similarly, in the case of infrastructure, the comment in the Impact Assessment that "*the reduction in demand for coal transport within the UK is likely to be offset by an increase in investment in gas transport capacity in the UK*"<sup>21</sup> completely fails to recognise or address the impact of the coal phase out on the rail and port industries.
47. The impact of the proposals on UK mines, and on rail companies and ports, should be properly considered. The suggestion in the Consultation that "*the Government is able to work with local partners, including the Jobcentre Plus' Rapid Response Service*"<sup>22</sup> implies that this is not being taken sufficiently seriously – either in terms of the impacts on jobs and communities, or in terms of the opportunities provided by the highly skilled people in the coal supply chain.
48. As stated above (paragraph 25), as part of the Industrial Strategy, ways should be explored to assist the people and associated skills involved in the coal supply chain (mining, infrastructure and generation) to play a part in delivering and operating the new capacity required to replace coal.

#### *Impacts on other industries relying on coal*

49. Whilst this Consultation is concerned with coal-fired generation, coal is also an essential feedstock for the steel and cement industries, and remains a competitive fuel for industrial, commercial and domestic consumers, especially in areas which are not gas-connected.
50. The impact on these other markets is completely ignored by the consultation. Coal is an essential raw material in the production of steel, and metallurgical coal (metcoal) will therefore still be needed in the UK. In the case of the cement industry, the use of waste and low-value feedstock has already been maximised, and coal is still required for kiln stability.
51. UK-produced coal makes these industries more competitive. The volatility of international coal prices over the last year or so, where the steam coal prices doubled and metcoal prices more than trebled, demonstrates the importance of competitive UK supply. Given the additional risks created by Brexit, further disruption to the coal supply chains for steel, cement and others should be avoided.
52. Both customers and UK suppliers, in steel and other sectors, need time to adapt to the impacts of power station closures on coal supply and infrastructure. Coal qualities are not interchangeable, so loss of the generation market also threatens these customers.

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<sup>21</sup> Impact Assessment – paragraph 35

<sup>22</sup> Paragraph 68

## Responses to consultation questions

### 1. Putting closure of unabated coal into effect

- a. *Do you have any views and evidence on the options outlined above, including on relative benefits and risks? Are the principles above a sound basis for designing a regulatory approach?*

In CoalImp's opinion, either of the two options would put into effect the closure of unabated coal plant, as defined in the consultation. However, Option 1 contemplates the potential for demonstrating CCS on a proportion of a station's capacity, which in CoalImp's view is so unlikely as to be something of a red herring. The first CCS competition highlighted the challenges of fitting CCS to an old coal plant and these challenges have surely increased as more years have elapsed. There is a further concern that associating the CCS concept with old, inefficient power stations in this way could damage the case for a properly funded programme for new coal with CCS, which CoalImp believes should still be pursued via new policy proposals.

The design principles for both options essentially involve applying new plant standards to old plants to precipitate their closure. This can be construed as undermining the principle of 'grandfathering' on the basis of which gas plants have been built, and may be built in the future. This increases the regulatory risk associated with investment in any new plant and so cannot be described as 'sound regulation'.

- b. *With reference to the Impact Assessment published alongside this consultation, do you have any views and evidence on the impact of these proposals? Are there alternative approaches that meet the objectives of closing unabated coal generation?*

The Consultation makes clear that "*the assumptions underpinning the 'high coal' scenario do not reflect established Government policy of expectation and are designed only to demonstrate the risks that investors may perceive*" (paragraph 24). CoalImp agrees that this 'high coal' scenario is unlikely to transpire, and therefore believes that the consultation proposals are somewhat redundant.

During 2016, a dramatic and unprecedented collapse in the coal market took place, with major effects on coal supply and infrastructure. A continuation of this trend could cause a chaotic and disorderly transition away from coal, well in advance of the timescales foreseen in the consultation, threatening security of electricity supply in the later years towards 2025. The Capacity Market is designed to ensure adequate generation capacity is available, some of which will continue to be coal, based on the outcome of the latest auction for 2020/21. However, unless coal is actually burnt each and every year until then, there is no mechanism to preserve the coal production and supply infrastructure, which cannot survive without orders.

Consideration of UK coal mining in the impact assessment is cursory and naïve (paragraphs 36 and 37). Despite the large falls in production

outlined, surface mining remains an important employer and contributor to the local economy in some areas, predominantly in Scotland, Wales and the North of England. Contrary to what is stated, the final closure of power stations, whenever this occurs, will clearly have an impact on mines that supply them. The impact of the proposals on these businesses, and on rail companies and ports, should be properly considered. This is further considered under Question 4.

*c. Under option 1, do you have any views on the proportion of generation capacity on which CCS demonstration should be mandated?*

As stated under 1 (a) above, CoalImP views the CCS proposal as something of a red herring, and does not consider this option worthy of further consideration.

*d. Do you have any evidence or analysis on the impact of these proposals on the likelihood of generators moving to higher levels of biomass co-firing?*

CoalImP does not have specific expertise in the area of biomass co-firing, but individual generator members will doubtless be responding on this point.

*e. Might there be any unintended consequences for other forms of generation? Are there better alternatives, and if so, why? If so, do you have any evidence to support your suggestions?*

CoalImP has no evidence on this point.

*f. Do you have any views or suggestions on the date in 2025 from which the proposed obligations should take effect?*

The consultation notes that 31st December 2025 would leave plant operators with the greatest level of flexibility on when to either close or to meet the proposed requirements. CoalImP would support this date.

## **2. Constraint in years ahead of 2025 closure**

*a. Do you agree with the principle of establishing a constraint on coal generation in the years ahead of 2025?*

No – this is completely unnecessary. The consultation notes (paragraph 48) that such a constraint would only have any relevance in the ‘high coal’ scenario, which is considered very unlikely. Whilst CoalImP understands Government’s arguments for the 2025 backstop date, adding further complexity to regulation ahead of this date is surely excessive ‘red tape’. Given the challenges to building sufficient replacement capacity in time for the 2025 deadline, security of supply would benefit from the maximum possible flexibility in the market before this date. A combination of Carbon Price Support, with the requirements of the Industrial Emissions Directive,

already makes significant burn levels at most coal plant into the 2020's very unlikely.

- b. Have you any views on how a constraint might be implemented, including on whether a constraint should be applied uniformly to each plant or across the fleet of generators, and any supporting evidence?*

Not applicable, in view of the answer to 2 (a).

- c. We would welcome views and supporting evidence on the level of constraint and time from which might it apply, including the impact on Capacity Market commitments.*

Ditto.

- d. Have you any views on the extent to which a constraint might affect coal plants' ability to participate in the Capacity Market?*

The added uncertainty of an additional constraint could clearly impact on the ability of coal plant to contribute to security of supply via the Capacity Market.

- e. Are there alternative ways of delivering the objective of phasing out coal generation by 2025 without negative impacts on the security of supply?*

As stated above, the combination of Carbon Price Support, with the requirements of the Industrial Emissions Directive is already putting the closure of unabated coal into effect. The two options proposed in the consultation already constitute 'belt and braces' to cater for the unlikely event of a 'high coal' scenario. Nothing further is required.

### **3. Ensuring Security of Supply**

- a. We would welcome comment on our proposals. What are the positive and negative aspects of the Secretary of State retaining powers to be able to temporarily suspend the closure date or constraint in previous years if he believes this is justified?*

The consultation states that "Government is clear that ensuring a secure supply of electricity to families and businesses is not negotiable" (paragraph 54). This is surely sufficient basis on which to make provision for the Secretary of State to retain powers to be able to temporarily suspend the closure date. The risks to security of supply do not only arise from too slow a rate of new gas build. Recent events, with French nuclear power stations and with the cross-channel interconnector, demonstrate that significant unexpected perturbations to electricity supply can occur, not all of which are predictable.

- b. *If such a measure were introduced how might it be best designed to minimise the impact on the investment climate for new capacity?*

The key would be to ensure that the decision could only be taken in light of a genuine concern about security of supply, and not simply to frustrate the intent of these proposals.

- c. *Does the assessment of future build rates summarised above and in the Impact Assessment published alongside this consultation represent a reasonable benchmark against which the closure of coal can be assessed?*

CoalImp is not expert on the question of future build rates, but notes doubts previously raised by ImechE<sup>23</sup> and other commentators pointing to the challenge of building enough new capacity to meet a 2025 deadline. Government has based its build-rate assumptions on a 2014 report, commissioned from Parsons Brinckerhoff<sup>24</sup>. The Executive Summary of this report is peppered with comments which call into question its relevance today, and in a post-Brexit world, for example:

- *"It should be noted that the maximum feasible build rate described in this report is independent of economic constraints and considers only technical and procedural constraints..."* (para. 2.1)
- *"The most significant factors affecting how much CCGT and/or OCGT will be constructed and become operational in any given year are economics and policy. However both of these factors are outside the scope of this study."* (para 2.3)
- *"It should be noted that finance availability is outside the scope of this report."* (para 2.5)

- d. *What additional factors and evidence might we need to take account of to measure the impact on investment in replacement capacity?*

The additional uncertainties brought about by Brexit were probably not taken into account when this Consultation was originally conceived. Building a new generation of gas stations cannot be viewed in isolation, but has to be considered alongside HS2, and Hinkley Point C etc. as well as developments elsewhere in the world, at a time when the UK may seem a less attractive place for investment and may struggle to find the skills and materials needed. There is already construction risk surrounding Hinkley, and finance for all major new projects will carry an additional risk premium post Brexit. The multinational companies, traditionally relied upon to build new power stations, have increasingly stretched balance sheets, and may decide to invest scarce resources elsewhere in Europe.

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<sup>23</sup> Institution of Mechanical Engineers - *Engineering the UK Electricity Gap*:  
<http://www.imeche.org/docs/default-source/position-statements-energy/imeche-ps-electricity-gap.pdf?sfvrsn=0>

<sup>24</sup> Parsons Brinckerhoff - *Coal and Gas Assumptions*  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/315717/coal\\_and\\_gas\\_assumptions.PDF](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/315717/coal_and_gas_assumptions.PDF)

#### 4. Wider Impacts of Coal Closure

- a. *We would welcome views and supporting evidence on the wider impacts of regulating the closure of unabated coal by 2025, particularly where these are additional to what might be expected without this measure.*

As already stated in the answer to 1 (b) above, consideration of UK coal mining in the impact assessment is cursory and naïve (paragraphs 36 and 37). Despite the large falls in production outlined, surface mining remains an important employer and contributor to the local economy in some areas, predominantly in Scotland, Wales and the North of England. Contrary to what is stated, the final closure of power stations, whenever this occurs will clearly have an impact on mines that supply them. The impact of the proposals on these businesses, and on rail companies and ports, should be properly considered.

The suggestion in the Consultation that "*the Government is able to work with local partners, including the Jobcentre Plus' Rapid Response Service*" implies that this is not being taken sufficiently seriously – either in terms of the impacts on jobs and communities, or in terms of the opportunities provided by the highly skilled people in the coal supply chain.

As part of the Industrial Strategy, ways should be explored to assist the people and associated skills involved in the coal supply chain (mining, infrastructure and generation) to play a part in delivering and operating the new capacity required to replace coal.

A further consideration, completely ignored by the consultation, is the impact on the other markets supplied by coal – particularly the steel and cement industries – but also other industrial, commercial and domestic consumers, especially in areas which are not gas-connected.

Coal is an essential raw material in the production of steel, and metallurgical coal (metcoal) will therefore still be needed in the UK. In the case of the cement industry, the use of waste and low-value feedstock has already been maximised, and coal is still required for kiln stability.

UK-produced coal makes these industries more competitive. The volatility of international coal prices over the last year or so, where the steam coal prices doubled and metcoal prices more than trebled, demonstrates the importance of competitive UK supply. Given the additional risks created by Brexit, further disruption to the coal supply chains for steel, cement and others should be avoided.

Both customers and UK suppliers, in steel and other sectors, need time to adapt to the impacts of power station closures on coal supply and infrastructure. Coal qualities are not interchangeable, so loss of the generation market also threatens these customers.