Response to BEIS Consultation on Coal Generation in Great Britain: The pathway to a low-carbon future
08 February 2017

About Energy UK

Energy UK is the trade association for the GB energy industry with a membership of over 90 suppliers, generators, and stakeholders with a business interest in the production and supply of electricity and gas for domestic and business consumers. Our membership encompasses the truly diverse nature of the UK’s energy industry – from established FTSE 100 companies right through to new, growing suppliers and generators, which now make up over half of our membership.

Our members turn renewable energy sources as well as nuclear, gas and coal into electricity for over 26 million homes and every business in Britain. Over 619,000 people in every corner of the country rely on the sector for their jobs with many of our members providing long-term employment as well as quality apprenticeships and training for those starting their careers. The energy industry adds £83bn to the British economy, equivalent to 5% of GDP, and pays over £6bn in tax annually to HMT.

Executive Summary

We welcome the opportunity to respond to BEIS’s consultation on Coal Generation in Great Britain. Decarbonisation of the energy sector at least cost to consumers while ensuring security of supply is the overarching objective facing the power sector. At a time when there is significant change across the industry, it is essential that BEIS considers the various interactions with other policies which are linked to the early closure of coal through non-market mechanisms.

Our key messages can be found below:

- Energy UK is fully aligned with the Government’s intention to make the transition to a low-carbon economy and supports the targets set out in the Fifth Carbon Budget. This echoes Energy UK’s position which is highlighted in our “Pathways to 2030” report1.

- We are not in favour of the mandated closure of specific generation technologies due to political intervention. Market mechanisms should be the main driver for decarbonising the energy system with tools such as the Carbon Price Floor (CPF) being used. The CPF has provided a stable carbon price signal to investors in the absence of the EU Emissions Trading System doing so, and we call on the Government to set a clear direction regarding the future of the CPF.

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1 Pathways to 2030 report: https://www.energy-uk.org.uk/publication.html?task=file.download&id=5722
We would question the need for the Government “to smooth the rate of unabated coal power station closures”; the market successfully took account of the closure of Ferrybridge C, Longannet and Rugeley in 2016, and other coal plants before them. Also, the issue of the closure of ageing plant is not limited to coal technology, with gas and nuclear plant also reaching the end of its operational life before 2025. New build rate assumptions should, therefore, take account of closures across all technologies to ensure security of supply is maintained.

We support the Electricity Market Reform package and consider that the Capacity Market auctions as the key market instrument for managing security of supply. Sufficient capacity should be procured through both the T-4 and T-1 auctions to encourage new-build generation to come forward and ensure security of supply. Ofgem and Defra need to confirm the enduring arrangements for electricity and gas network charging and environmental regulation for medium combustion plant as soon as possible and well ahead of before the next T-4 Capacity Market auction.

Reforms to the Ancillary Services market are likely to be needed to ensure that once coal plant close, system services can be replaced with the right quantity and quality of new generation. We note that the consultation makes no reference to the provision of Black Start services, to which coal plant have made, and are likely to continue to make, a major contribution without reforms to the ancillary services market.

Energy UK welcomes the opportunity to further discuss the points raised within this consultation with BEIS. Should you require further information or clarity on the issues outlined in this paper then please contact:

Kyle Martin
Senior Policy Manager, Generation
Energy UK
Charles House
5-11 Regent Street
London SW1Y 4LR
Tel: 020 7747 2974
Kyle.martin@energy-uk.org.uk
www.energy-uk.org.uk

Andy Limbrick
Environment Consultant
Energy UK
Charles House
5-11 Regent Street
London SW1Y 4LR
Tel: 020 7747 2924
andy.limbrick@energy-uk.org.uk
www.energy-uk.org.uk
Response to consultation questions

1. 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?

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?

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

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?

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?

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

Energy UK is fully aligned with the Government’s intention to make the transition to a low-carbon economy and supports the targets set out in the Fifth Carbon Budget. This echoes the position highlighted in the Energy UK “Pathways to 2030” report.

However, we are not in favour of the mandated closure of specific generation technologies due to political intervention which undermine investor confidence. We consider that the closure mechanisms are not necessary to drive coal off the system. Market mechanisms should be the main driver for decarbonising the energy system with tools such as the Carbon Price Floor (CPF) being used. The CPF has provided a stable carbon price signal to investors in the absence of the EU Emissions Trading System doing so, and we call on the Government to set a clear direction regarding the future of the CPF.

Both of the two options presented have disadvantages. Neither is technology-neutral and both will necessitate the introduction of special requirements to avoid unintended consequences for other fossil fuel plant, thus adding to legislative complexity.

With regard to the use of Option 1 (reflecting the existing planning regime for new coal power stations onto existing plant from 2025) we would point out that an obligation to demonstrate CCS technology on a proportion of the station’s capacity has consequences far beyond the application of carbon capture technology which has not yet been proven commercially viable with power generation. A project would also need to establish transport and storage infrastructure, which would require extensive and time-consuming planning and societal engagement, with no guarantee of completion within the desired timescale. These issues are to be considered in the context of no clear view from the Government on the way forward for CCS following the cancellation of the £1bn capital grant for up to two CCS projects at the November 2015 Spending Review, and no further Government funding for the technology, all of which has undermined investor confidence. These points are highlighted in a recent report.
by Lord Oxburgh\(^2\). The Committee on Climate Change (CCC) has also highlighted that CCS is essential to achieving our carbon targets.

Option 2 (modifying the existing Emissions Performance Standard (EPS) to apply a concentration-based limit on emissions per unit of generated electricity at any point in time) appears to offer flexibility for operators to reduce emissions by making adjustments to their fuel use. The technical requirements for such flexibilities would have to be defined further by Government and would be of critical importance to operators seeking to make use of them. For example, we seek clarity regarding whether units that have a Capacity Market agreement are no longer eligible for Renewables Obligation Certificates (ROCs) from the delivery date.

However, at a more fundamental level, Option 2 can also be considered to redefine the EPS so that it is no longer related to the nature of the environmental impact from CO2. The annual approach specified in the Energy Act 2013 reflects the long-term nature of the related environmental impact (global warming and climate change), and aligns with current regulation of CO2 emissions under the EU ETS. From that point of view, Option 2 represents retrospective application of the EPS to existing plant and a change to an already established EPS metric.

If either of the Options were to be introduced, we would support implementation from 31 December 2025 to allow operators the greatest level of flexibility to meet the proposed requirements.

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

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?

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

Have you any views on the extent to which a constraint might affect coal plants’ ability to participate in the capacity market?

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

We would question the need for the Government “to smooth the rate of unabated coal power station closures”; the market successfully took account of the closure of Ferrybridge C, Longannet and Rugeley in 2016, and other coal plants before them. Also, the issue of the closure of ageing plant is not limited to coal technology, with gas and nuclear plant also reaching the end of its operational life before 2025. New build rate assumptions should, therefore, take account of closures across all technologies to ensure security of supply is maintained.

T-4 Capacity Market auctions give four years’ notice of plant intentions to the wider market. Also, operators have a judgement call to make on recouping the expense of a major outage (normally every four years); this also gives notice of plant intentions to the wider market.

We consider the BEIS “high coal” scenario to be an unlikely outcome, given the need for coal plants to comply with the environmental requirements of the Industrial Emissions Directive (IED) and the cost of maintaining plant. The IED sets minimum requirements, but also requires compliance with the Large Combustion Plant Best Available Techniques Reference Document (LCP BREF). A revised LCP BREF is expected to be published in 2017; operators will have to comply with its requirements, which go beyond the Emission Limit Values in the IED, within four years of publication. Other market conditions have led to historic low load factors for coal plants in 2016.

The consultation document recognises that the application of any constraint might have an impact on coal plants’ ability to participate in the Capacity Market. We regard technology-neutrality as a key principle of the Capacity Market and the Government should continue to allow coal plant to bid into auctions.

3. 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?

If such a measure were introduced, how might it be best designed to minimize the impact on the investment climate for new capacity?

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?

With reference to the analysis set out in the Impact Assessment, what additional factors and evidence might we need to take account of to measure the impact on investment in replacement capacity?

With regard to the suggestion in the consultation document that provision could be made for the Secretary of State to have the power to suspend or amend the proposed arrangements for closing unabated coal plants, this would introduce unwelcome regulatory risk and weaken the signal for new investment. Operators would need to see clear criteria for the suspension of a closure date and details of the timing of its implementation.

It is worth noting that, even if a closure date were suspended, there is no obligation on the generator to remain open. Furthermore, plant maintenance, freight booking, fuel procurement and transmission network access rights are all interdependencies which need to be booked up to two years in advance. Therefore, rescinding the closure arrangements at a late stage may have no impact on operators’ ability to keep a power station open.

We support the Electricity Market Reform package and consider that the Capacity Market auctions as the key market instrument for managing security of supply. To avoid the need for suspension, sufficient capacity should be procured through both the T-4 and T-1 auctions to encourage new-build generation to come forward and ensure security of supply, with Ofgem and Defra confirming the charging regime and environmental regulation that will be in place in the future.
Reforms to the Ancillary Services market which facilitate competition and transparency are likely to be needed to ensure that once coal plant close, system services can be replaced with the right quantity and quality of new generation. We note that the consultation makes no reference to the provision of Black Start services, to which coal plants have made, and are likely to continue to make a major contribution without reforms to the ancillary services market. Improved transparency and market orientated procurement of services will help facilitate this transition.

4. 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.

We have identified the following points that should be taken into account when considering the proposals made in the consultation document. Many of these have already been managed to date in the course of previous plant closures, but will have to continue to be addressed appropriately going forward as the policy and regulatory context evolves:

- Mandating the closure of coal-powered generation without reforming the Ancillary Services market could result in system stability being compromised. National Grid needs to ensure the new providers of ancillary services (especially Black Start services) are able to access the market to provide these services on the same timescale as the planned closure of coal-fired power stations.
- BEIS should consider the linkage between the proposed closure programme and the development of the Industrial Strategy. This includes issues around the potential 8,000+ job losses comprising permanent directly-employed, coal-fired power station staff, and site contractors, those employed within ports, coal transport and what remains of the mining community. There will be a need to consider managing the transition for remaining plant, regional impacts, retraining options and early investment in Research and Development for new and emerging technologies.
- The HSE has expressed a wish to have a strategy for demolition and site clearance.
- The closure of coal plants will have an impact on the supply of secondary raw materials such as pulverised fuel ash and gypsum derived from the Flue Gas Desulphurisation process, which are widely used as construction materials.
- The final draft of the LCP BREF includes emission limits for NOx from new high-efficiency CCGTs that cannot be met on a guaranteed basis. This could pose a significant regulatory risk for potential new-build gas plant and operators will need a clear statement of the UK Government’s position on interpretation of the BREF, preferably in advance of its publication in 2017.