



Department for  
Business, Energy  
& Industrial Strategy

# COAL GENERATION IN GREAT BRITAIN

Summary of responses to consultation



October 2017

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# Introduction

## Context

1. In November 2015 the government announced its intention to consult on proposals to end unabated coal generation by 2025. In November 2016 the Department for Business, Energy and Industrial Strategy (BEIS) published a consultation on proposals<sup>1</sup> for how to put that into effect. The consultation ran from 9 November 2016 to 8 February 2017 and received 5,939 responses from individuals, businesses, trade bodies, Non-Governmental Organisations (NGOs) and other organisations. BEIS is grateful to all those who took the time to contribute.
2. This document serves to summarise the responses received to the consultation, though it does not reflect every single one of the many different views and points that stakeholders responded with. [Annex A](#) sets out a list of organisations that provided responses to the consultation.
3. The consultation document asked four questions on our proposals: how to put the closure of unabated coal into effect; approaches to constraining generation ahead of that; how to ensure security of supply, and; the wider impacts of coal closure.

## Next steps

4. Following the consultation, and as set out in the Clean Growth Strategy<sup>2</sup>, **the government confirms that it will proceed with action to regulate the closure of unabated coal power generation units in Great Britain by 2025**. This is based on the benefits of guaranteeing reductions in emissions of carbon dioxide and air pollution, the certainty regulation would provide to the market for new capacity, and on assessments of the low likelihood of impact on security of supply. We are continuing to carry out our assessment of options for implementation, and detail on the regulatory approach for putting this in effect will be set out in due course.

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<sup>1</sup> *Coal Generation in Great Britain: The Pathway to a Low-Carbon Future, Consultation Document*, [www.gov.uk/government/consultations/coal-generation-in-great-britain-the-pathway-to-a-low-carbon-future](http://www.gov.uk/government/consultations/coal-generation-in-great-britain-the-pathway-to-a-low-carbon-future)

<sup>2</sup> [www.gov.uk/government/publications/clean-growth-strategy](http://www.gov.uk/government/publications/clean-growth-strategy)

# Summary of responses received to the consultation

## Level and profile of responses

5. The breakdown of the respondents was as follows:

Respondent type	Responses	Percent of total (excludes NGO campaign)
Individuals	16	17%
Non-Governmental Organisations (NGOs)	29	31%
Academia / research organisations	6	6%
Industry and industry groups	40	43%
Political parties	2	2%
Trades Union	1	1%
Individuals through NGO campaign	5,845	-
TOTAL	5,939	-

6. The vast majority of responses (98.4%) were from private individuals received through an NGO petition campaign. Of the 94 unique responses, the majority were received from various elements of the electricity and coal industries and industry groups, and from a variety of NGOs. A number of NGOs also signed a joint statement which has been recorded as one response.

## Question 1: Putting closure of unabated coal into effect

This question sought views and evidence on the two options for putting the closure of unabated coal into effect, including on relative benefits and risks. It sought views on the impact of the proposals with respect to the draft Impact Assessment that was published alongside the consultation document.

The question also sought detailed views on the proportion of generation capacity on which CCS demonstration should be mandated under option 1, and the impact of proposals on the likelihood of generators moving to higher levels of co-firing under option 2. Stakeholders were also asked for views on whether the proposals would have unintended consequences.

Finally, views were sought on the date in 2025 from which the proposed obligations should take effect.

7. While not all responses answered this question explicitly, the majority of responses expressed views on some or all of the elements of it.

8. The majority of stakeholders were supportive in principle of the proposed action to regulate the closure of unabated coal units in Great Britain, noting the relative carbon-dioxide intensity of coal generation and air pollution associated with it. It was commonly noted that the timing of coal plant closures is uncertain and that this had an effect on investment in new capacity. However a proportion of stakeholders, mostly from industry, expressed the view that regulation was not necessarily required to drive the switch away from coal, highlighting the effectiveness to date of carbon pricing through the Emissions Trading System and the UK's Carbon Price Support, and the requirements under the Industrial Emissions Directive.
9. Many stakeholders, particularly from NGOs, private individuals and some elements of industry reflected on the analysis presented in the Impact Assessment accompanying the proposals, which suggested it is feasible that all coal plants might close without further intervention in 2021/22. Roughly half of unique responses argued that the date for ending unabated coal should be brought forward (2023 being commonly cited). The responses through the NGO campaign argued this point.
10. On the two options proposed for regulation, there was little support for requirements to demonstrate Carbon Capture and Storage (CCS) technology to be applied to existing coal plants. Most respondents who offered comment on this referred to the relatively nascent nature of the technology, the timetable for investments and for establishing transport and storage infrastructure, and the level of cost that demonstration of CCS might attach. Most respondents also reflected on the relative age of the remaining coal fleet, and questioned whether retro-fit CCS would be an efficient or cost-effective solution. Some industry group respondents suggested that setting requirements to demonstrate CCS in the proposed timeframe might undermine confidence in CCS as a technology.
11. Amongst those who commented, there was more support for the principle for an emissions intensity limit onto coal on a unit-by-unit basis, noting this is the less prescriptive of the two options and, as an approach, is in line with the air pollution abatement requirements that have been placed on emitters in the past. However, around 10% of unique responses, mostly from NGOs, raised concerns over the potential for increased levels of biomass co-firing that this option would permit. Citing evidence, the majority of these centred on the impact that biomass generation might have on net carbon emissions, and the impacts of deforestation and land use change.
12. Roughly a fifth of respondents to this question reflected on the types of capacity that will replace coal units as they close. Many of these commented that the future energy mix will be less reliant on large-scale flexible generation and that a diverse mix of new CCGT, OCGT, gas reciprocating engines, storage, inter-connectors and demand-side response will be delivered to complement increased renewable sources. A proportion of industry respondents highlighted that coal will continue to play an important, low-cost role in the transition to a low-carbon electricity system.
13. On the final question of the date in the year at which the proposed regulatory options should come into effect, there was a mix of views. Of those who commented, the majority favoured a date aligned to the capacity market delivery year (beginning 1 October), though a number of industry respondents argued for 31 December to allow coal generators the greatest flexibility.

## Question 2: Constraint in the years ahead of 2025 closure

This question sought views on the principle of establishing a constraint on coal generation in the years ahead of 2025, how such a constraint might be implemented, and the level and time from which it might apply. It sought 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?

14. While not all responses answered this question explicitly, approximately half expressed views on some or all of the elements of it.
15. Roughly half of unique responses expressed the view that a constraint in some form would be desirable to manage an orderly transition away from coal, to provide clarity to the market, and to guarantee earlier reductions in carbon dioxide and air pollution emissions.
16. Conversely, roughly half of the proportion of unique respondents, mostly from industry, expressed the view that a regulated load factor constraint was not necessarily required to drive an orderly switch away from coal, arguing that carbon pricing through the EU Emissions Trading System and the UK's Carbon Price Support should have the desired effect of driving coal closures in an orderly way. Around a quarter of respondents considered that a clearer, long-term trajectory for the Carbon Price Support would aid the orderly reduction in capacity. Some respondents suggested other incentive-based mechanisms.
17. Further, some industry respondents argued that regulated constraints would bring unwelcome complexity to the market. A small proportion of respondents, including private individuals and industry, expressed concern that such a constraint could lead to an increase in consumer bills: the draft Impact Assessment accompanying the consultation suggested this will not be an issue in the "central" scenario, though in the unlikely "high coal" scenario a constraint pre-2025 was shown to increase consumer bills.
18. Many responses on both sides expressed the view that the 40% load factor constraints modelled in the draft Impact Assessment were unlikely to have a significant impact given projected decreases in load factors for coal in the future. A number of respondents highlighted that the majority of coal plants will face a tighter 17% load factor constraint from 2020, as required under the Industrial Emissions Directive, but this had not prevented two coal plants securing Capacity Market agreements for delivery in 2020/21.
19. Around a quarter of unique responses reflected on the Capacity Market's role in ensuring security of supply (also explored in the next section), with NGOs in particular suggesting that coal's eligibility to bid into the Capacity Market four-year ahead auctions should be constrained for delivery from 2023. This, it was argued, would strengthen the market signals for new build flexible capacity ahead of the backstop date. Some NGOs further argued that regulating for an earlier intervention to reduce coal capacity would reduce the chance of it biting at a similar time to other perceived market risks.
20. Of those who commented on this point, no respondent agreed with the principle of applying a constraint on the coal fleet in total, noting the complexities of administration this would bring.

## Question 3: Ensuring security of supply

This question sought comment on our proposals in terms of securing secure supplies of electricity, in particular on whether the Secretary of State should retain powers to temporarily suspend the backstop date on unabated coal if this were justified at the time.

The question also sought feedback and evidence on the impact of the proposals on the investment case for new capacity, and on the build rates of this capacity set out in the draft Impact Assessment that accompanied the consultation.

21. While not all responses answered this question explicitly, the approximately half expressed views on some or all of the elements in this question.
22. The majority of those who responded to this question held the view that there is unlikely to be a significant risk to security of supply from regulating to close unabated coal, with stakeholders highlighting the Capacity Market's role in ensuring security of supply. However, as above, a significant number of responses to this question, mostly NGOs, expressed the view that coal units should be prevented in some way from bidding into the Capacity Market's four-year ahead auctions ahead of the backstop date, while allowing coal to bid into the one-year ahead auctions should there be a concern about security of supply at the time.
23. Responses from industry and academia / research organisations also commented on the level of capacity that is likely to remain on stream in 2025. Many argued that as 6GW of coal capacity had secured capacity agreements for delivery in 2020/21, it was unlikely that there will be reduction in capacity of more than this at one point in time. Some observed that the market managed the closure of 5GW of coal capacity closed in 2016.
24. The majority of stakeholders who responded to this question expressed the view that the benefits of an arrangement to temporarily defer the closure of unabated coal would be outweighed by the uncertain signals that it would place on the market. This, it was considered, would diminish the confidence that investors in new capacity would have on the market.
25. A number of respondents, mostly from industry and academia/research organisations, expressed views on the importance a whole-system approach to determining security of supply. Many of these responses provided views on the mix of new build capacity that may come forward to replace coal, may include a greater level of small-scale flexible generation, renewables smart technologies, Demand-Side Response and interconnectors than modelled in the accompanying Impact Assessment.
26. A number of responses to this question, and to question 4 (below) reflected on the need to consider system resilience as part of the transition away from coal, in particular given coal plants' historical role in providing balancing services, system inertia and "black start" services.
27. A clear majority of those who commented on this point agreed that the maximum build rates for new gas power stations described in the consultation and draft Impact Assessment were a reasonable benchmark, though some commented that not necessarily sustainable for more than 1-2 years.

## Question 4: Wider impacts of coal closure

This question sought 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.

28. While not all responses answered this question explicitly, approximately a quarter of the unique responses expressed views on it.
29. The majority of responses to this question reflected on the impacts that closures of coal power stations will have on those employed directly and indirectly by the stations themselves, but also within local communities and coal supply chains. However it was commonly noted that this transition was inevitable even without the proposed interventions, as coal plants come to the end of their lives. Others pointed out that this transition was already underway, for instance with reductions in coal rail freight and port capacity over recent years.
30. While this was out of scope of the consultation, some elements of industry highlighted the on-going need for coal for other purposes, including: household heating, and industrial processes such as iron and steel, cement, and other feedstocks.
31. Some stakeholders observed the opportunities afforded by the government's work to develop an Industrial Strategy, which aims to improve living standards and economic growth by increasing productivity and driving growth across the whole country. A number of those who responded to this question highlighted the opportunities of the move to clean technologies to create new skilled employment. There was some suggestion that more detailed consideration should be given to specific local impacts in the final Impact Assessment.
32. A number of NGOs and academic / research organisations reflected on the benefits of guaranteeing reductions in emissions of carbon dioxide and air pollutants such as nitrogen oxides, sulphur dioxide and particulate matter. A number of NGOs reflected on the benefits of action in encouraging other countries to reduce coal use. Some NGOs also commented on the social and environmental impacts of coal mining in other countries.

## Other comments

33. A significant number of respondents, including all of the responses received through the NGO campaign, argued that action should be taken to limit or prevent new coal mining operations in Great Britain: however this was out of the scope of the consultation, which was focussed on electricity generation from coal.

## Annex A

A list of organisations that provided responses to the consultation is below (excluding private individuals who are excluded due for data protection reasons, and those who requested not to be listed).

- Aggregated Micro Power Holdings
- Advanced Power Generation Technologies Forum
- Associated British Ports
- Association for Decentralised Energy
- Biofuelwatch
- Bright Blue
- British Ceramic Confederation
- Calon Energy
- Campaign Against Climate Change
- Cafod
- Carbon Tracker Initiative
- Carbon Capture and Storage Association
- Christian Aid
- Client Earth
- Coal Action Network
- Coal Imp
- Confederation of British Industry
- Confederation of Paper Industries
- DeutscheBahn
- Dogwood Alliance
- Drax
- E3G
- Ecodefense
- Ecotricity
- EDF
- European Environmental Bureau
- EEF
- Eggborough Power
- Eider
- Energy UK
- Engie
- ESB

- Energy Technologies Institute
- Frieghtliner
- Friends of the Earth
- Fuel Poverty Action
- Good Energy
- Green Alliance
- Green Party
- Greenpeace
- Historic England
- Institute for Energy Economics and Financial Analysis
- InterGen
- London Mining Network
- Low Carbon
- Natural Resources Defence Council
- NGO Joint Statement
- Oxfam
- Peel Ports Group
- Prospect
- Rail Freight Group
- Renewable Energy Association
- Reclaim the Power
- Renewables UK
- RSPB
- RWE
- Sandbag
- Scottish Opencast Communities Alliance
- Scottish Power
- Scottish Renewables
- Shell
- Myski Local Civic Organization
- University of Sussex (Science Policy Research Unit)
- SSE
- Statkraft
- UK Energy Research Centre
- UK Health Alliance
- UK Onshore Oil and Gas
- UK Power Reserve
- UK Youth Climate Coalition
- Uniper

- United Valleys Action Group
- US Industrial Pellet Association
- US National Wildlife Federation
- US Southern Environmental Law Centre
- VPI Immingham
- Welsh Government
- Winchester Action on Climate Change
- World Coal Association
- WWF



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