

The Energy Bill and the coal phase-out

Briefing for Members of Parliament

January 2016

This briefing sets out how and why the Energy Bill should legislate for policy to ensure coal is phased-out of the UK energy mix before 2025.

Ahead of Paris, the announcement of a UK coal phase-out was an historic and ground-breaking step. Secretary of State Amber Rudd committed to ensure all unabated UK coal power will close [by 2025](#), following the cross-party [pledge](#) to phase-out coal generation signed by the Prime Minister in February 2015. The Energy Bill is an opportunity to legislate for this, creating the policy that ensures coal is rapidly closed whilst maintaining security of supply.

Why should this be done?

- It would enable the UK to lead the world out of inefficient, unabated coal generation.
- It would create investor certainty to invest in lower carbon technologies.
- It would ensure that any addition of renewables to the grid offsets coal generation, not gas generation.
- It would lead to cleaner air in the UK.
- It would help provide leadership to accelerate the phase-out of coal globally, which is needed to keep global temperatures to the 1.5°C committed to by 195 governments in Paris. This agreement was steered by the ambitious commitments, including the coal phase-out, that are now occurring across the globe.
- There is [cross-party consensus](#) for the coal phase-out.

The problem

In 2014, coal power stations produced 17% of all the UK's CO₂ emissions. They also emitted 22% of all the UK's NO_x, 44% of sulphur dioxide, and 5% of dust.¹

As renewables capacity is being built, wind and solar generation have been displacing gas generation and not coal generation. From 2010 to 2014, gas generation, as a % of the generation mix, fell 18% points; coal, however, was unchanged (see figure 1). This means that renewables are not delivering the emissions reductions that were planned and hoped for.

About Sandbag

Sandbag is a UK-based not-for-profit think tank conducting research and campaigning for environmentally effective climate policies.

Our research focus includes the phase-out of old coal in Europe; deep decarbonisation of industry through technologies including Carbon Capture Utilisation & Storage; reform of the EU Emissions Trading Scheme; and increasing ambition in the EU 2020 and 2030 climate & energy packages.

For more information visit www.sandbag.org.uk or email us at info@sandbag.org.uk

¹ Data from The European Pollutant Release and Transfer Register, available here: <http://prtr.ec.europa.eu/#/home>

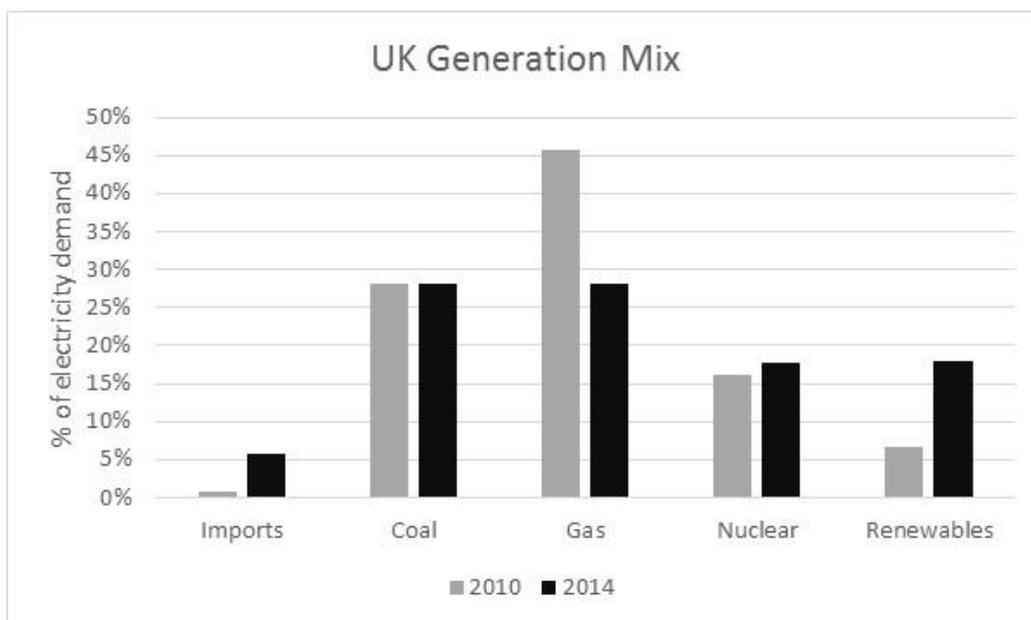


Figure 1: The UK Generation Mix (DECC)²

This is because coal power stations are not closing as expected. They are staying open because they will get [payments from the capacity mechanism](#) – £173m in 2018 alone to old coal plants – which cover a large proportion on their fixed costs. Together with payments from National Grid for balancing services, this means they will stay open regardless of their expectation of their profitability from the wholesale market.

Coal stations are also staying open because of political uncertainty surrounding the [carbon price floor](#) (if it is scrapped, then coal power stations will become profitable once again), and because it is possible to use new technology to comply with new environmental legislation (particularly the [EU Industrial Emissions Directive](#)) without major cost.

Low impact on the energy system

Closing coal will not mean the lights go out. Security of supply is controlled under the capacity mechanism – therefore closing coal power station mean they are **necessarily** replaced by other measure – most likely gas capacity, firm interconnector capacity, demand response, or electricity storage devices. Arguably, these new capacity measures will provide more secure capacity than coal power stations, all of which are 43 years’ old or older.

Coal adds little to the UK economy nowadays. Out of any fuel source, it could be argued that coal provides the least number of jobs and contribution to fuel security of supply.

- 79% of our coal is imported, and 40% of that is from Russia.³
- There are only 2168 jobs left in UK coal mining,⁴ and only 2300 jobs in the UK coal power stations that will be open after this winter.⁵ This compares to 35,000 employees in wind, tidal and wave sectors.⁶
- 6 of the 8 power stations that have not yet announced closure are foreign-owned.

² DECC (July 2015) ‘Digest of United Kingdom Energy Statistics’, available here:

<https://www.gov.uk/government/statistics/digest-of-united-kingdom-energy-statistics-dukes-2015-printed-version>

³ See fn. 2.

⁴ Statistics provided to Sandbag by the UK Coal Authority.

⁵ Based on statistics provided by generating companies.

⁶ Statistics from trade association RenewableUK, available here: <http://www.renewableuk.com/en/news/renewableuk-news.cfm/23-12-2015-busy-year-of-construction-activity-ahead-for-british-wind-industry-but-onshore-wind-faces-uncertain-future>

The date

An explicit phase-out of coal generation before 2025 would guarantee that renewables and falling electricity demand would lead to the most emissions reductions – by displacing coal generation, rather than gas.

A recent report by Aurora shows that a coal phase-out date of **2020** may still be possible without jeopardising security of supply.

DECC **already** expect coal to fall to only 1% of the generation mix by 2025 (see figure 2).

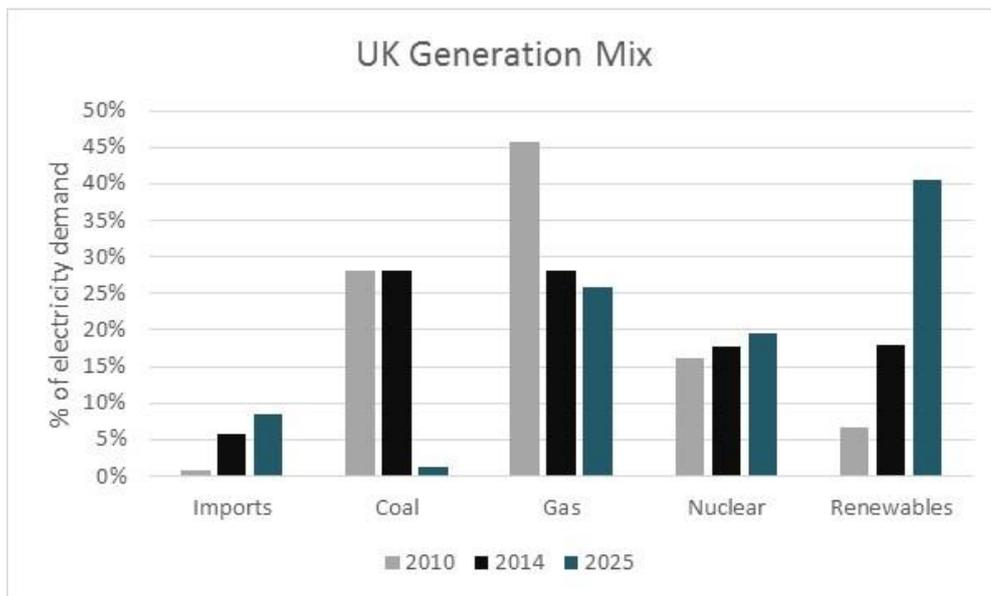


Figure 2 The UK Generation forecast to 2025 (DECC)⁷

International leadership

Stopping burning unabated coal for electricity is arguably the quickest and cheapest way to reduce climate change. Currently 30% of global CO₂ emissions come from burning coal for electricity. The IEA say that to stay below 2°C, global coal burn must halve by 2030⁸ – a very hard task which requires strong leadership. This graph below shows the latest (10-Nov-2015) forecasts from IEA, which demonstrates the huge gap between what is happening and what needs to happen.

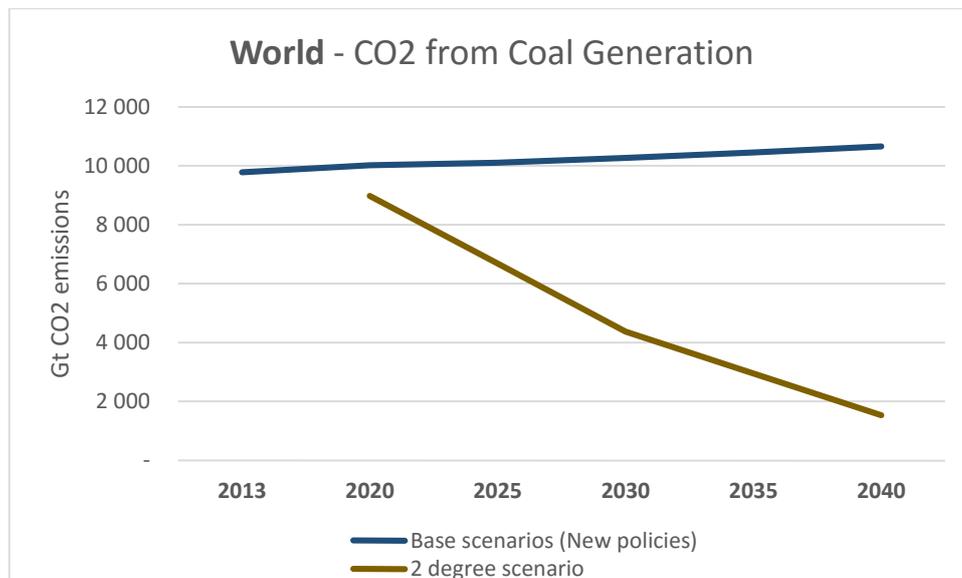
Other countries are watching – China and US already have a war on coal, which is showing results already, see [here](#) – but it needs leadership to take it to the next level: to phase-out coal generation altogether.

More international focus needs to be on reducing CO₂ emissions from coal power stations, and this is done most effectively through peer pressure. A strong policy framework in the Energy Bill would add to the peer pressure needed to help the US and China to accelerate closure of old coal power stations, and it would also provide the peer

⁷ See fn. 2.

⁸ See Greenpeace/Sandbag report on “End of an Era”, see [here](#).

pressure to help India, Turkey and Indonesia to reverse their current strategies of building new fleets of unabated coal power stations before they become the China of tomorrow.



About this briefing

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