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Drax's new gas plans: bad news for the climate

Photo by Tim Green

The UK's largest power station, Drax in Yorkshire, has announced plans to replace its two remaining coal-fired units with much bigger ones burning gas.

This comes in the wake of the UK government's pledge to phase out 'unabated' coal by 2025. So the alternative to gas would be for Drax to have to shut down its coal units and possibly its whole carbon-spewing power station, which would likely no longer be economic. If Drax's proposal goes ahead, its gas capacity would be up to 2.7 times larger than West Burton power station, the largest gas-fired UK plant to date.

What is Drax?

Drax Plc is the name of the company operating Drax Power Station. Built in 1975, Drax has long been famous as the UK's largest coal-fired power station. Its status as the UK's largest single emitter of CO₂ led to it being the target of the UK's first ever climate camp in 2006¹.

Starting in 2012, Drax has converted three of its six units to burning wood pellets (and will be converting a fourth in 2018). It now burns imported pellets made from 13 million tonnes of wood each year². Burning biomass on this scale in power stations is bad for the climate³, and causes forest destruction in the countries where the pellets are made as well as noise, dust and air pollution around the pellet mills⁴.

In the southern US, many forests which are at the heart of an internationally global biodiversity hotspot are being clearcut and most of the wood is turned into pellets. Precious ecosystems are destroyed, water is depleted and communities in the region are polluted. Drax is the biggest importer of those pellets. Drax's ongoing burning of coal and biomass has meant it is still a focus for forest, climate and environmental justice campaigners. Now, with the coal phase out, Drax wants to maintain its status as the UK's biggest fossil fuel burner, too.

For more information on Drax and the campaign to close it down, see axedrax.org.uk.



Photo by Dogwood Alliance

What is proposed?

Drax proposes to substantially rebuild either one or two units – both of which currently burn coal – to burn gas instead⁵. The refurbished units would have a new combined capacity of up to 3.6 gigawatts (GW), which is more than twice the size of the two existing coal units combined. Replacing both units would make Drax by far the UK's largest gas power station. The development will involve building an underground pipeline of around 3km in length. Drax also

proposes to construct a battery storage facility for each converted unit with capacity of up to 200MW.

Drax has said that it will be seeking investment and a type of subsidy called a Capacity Market Payment (CMP) - paid through a surcharge all our electricity bills - to complete the conversion⁶.

Drax's proposal is going through a statutory public consultation period⁷, during which members of

the public can comment on it. The company plans to then submit an application to the Planning Inspectorate (PINS), which will then make a recommendation to the Department of Business, Energy and Industrial Strategy (BEIS) as to whether the project should be allowed to go ahead. Drax expects a decision from BEIS by the end of 2019, with a view to generating electricity by 2023.

What's wrong with gas?

Fossil fuel companies have successfully rebranded gas as 'natural gas', the acceptable face of fossil fuels. While fossil fuel gas emits less air pollutants and CO₂ than coal, it still emits more CO₂ than we can afford and, furthermore, several studies suggest that the overall greenhouse gas emissions may be no less than those from coal once methane leakage from pipelines and wells are factored in. We urgently need to reduce our carbon emissions in order to stay within 1.5 degrees of global warming; there is no potential 'safe' amount of new fossil fuel burning.

Drax has said that its new units will be 'carbon capture ready'; this is a meaningless statement since there are no actual plans to capture even one gram of carbon⁸.

According to Andy Gheorghiu of Food and Water Europe:

"Gas is a rising, important, and yet under-addressed issue. New research exposes the dangerous climate risks of gas (methane) and the grave dangers new gas infrastructure poses towards a "lock-in" to fossil fuel based energy systems. What we are looking

at is a huge fossil fuel lock-in, and infrastructure we don't really need. Gas demand is dropping in Europe, so this risks becoming a stranded asset. Meanwhile, the fossil fuel industry is using lobbying and advertising to frame gas as an intermediate energy supplier and an ideal partner for renewables with low climate effects."⁹

Building new gas power capacity is likely to drive demand for fracking, a highly polluting and unpopular process. In August 2017, public support for fracking in the UK was at 16%¹⁰.



Anti-fracking protest at PR Marriott's drilling, photo by Reclaim the Power

What is the background to this proposal?

In 2015 the UK government announced its intention to phase out 'unabated coal'¹¹ by 2025 – but only if enough new gas capacity is built by then. This led to the 2016 Coal Phaseout consultation, the results of which were published in January 2018. The government's detailed policy decision, announced on 5th January¹², is in line with the original announcement, ie relying heavily on new gas power to

replace coal. For companies like Drax, moving away from coal is a way to stay afloat, and switching to gas is the least imaginative way to do it.

Drax is not the only power company looking to expand into gas, although its proposals are the largest. RWE, Eggborough Power and SSE, all of which have coal power station assets, have put forward proposals to build big

new gas power capacity too. Whether power station operators will be granted the subsidies they want to do this work remains to be seen, but it's clear that the energy industry is hoping gas fired power will be its next lifeline. And no doubt, companies like Drax will be using the Coal Phaseout as an excuse to demand generous new gas subsidies.

How else is Drax trying to get into the gas market?

In 2016, Drax bought interests in four as yet unbuilt smaller (299MW) gas fired power stations¹³. These are back-up power stations which would only run for a limited number of hours, for which Drax also hopes to get subsidies. Drax has said it hopes these power stations will be operational by around 2022.

Two of these projects – Millbrook in Bedfordshire and Abergelli in Swansea – also currently have planning applications open¹⁴.

For more info on Drax and all its activities see axedrax.org.uk



Ferrybridge Power Station, photo by Bill Boarden

What should happen instead?

If this development goes ahead, it will lock the UK into more decades¹⁵ of fossil fuel electricity generation, at a time when we need to be urgently moving away from such polluting industries. It will spend subsidy money that should instead be going towards measures to reduce our electricity use and start a transition towards genuine no-burn renewables. It will bring in more profits which will allow Drax

to continue fuelling forest destruction and climate change by burning huge amounts of wood pellets, too. It will also lock us in to 'needing' more gas, which will play into the hands of those advocating for fracking in the UK and elsewhere in Europe.

Carbon emissions are going to warm our climate whether they come from coal, gas or biomass. Aside from climate impacts, fossil

fuel extraction always has other effects including air and water pollution, biodiversity loss and often erosion of local democracy.

Instead of converting to other forms of polluting power, Drax needs to be shut down and replaced with appropriate, genuinely 100% renewable energy such as wind, waves and sun as well as strong measures to reduce the UK's fuel use.

What can I do?

Write a submission to Drax's public consultation, or fill in our e-alert, saying you are not in favour of the proposal. We suggest you make the following points:

- “Natural gas” is mainly composed of methane, which is an extremely powerful greenhouse gas – 86 times stronger than CO₂ over a period of 20 years.
- Building this infrastructure will lock us in to decades more of fossil fuel burning, at a time when we need to be dramatically reducing our carbon emissions.
- Building a new gas-fired power station will support demand for fracking, a dangerous and polluting process which communities across the UK and elsewhere in and beyond Europe have clearly said they don't want.
- Transitioning to burning gas instead of coal is a way of keeping Drax open and continuing to receive subsidies for burning biomass, much of which comes from threatened forest ecosystems in the southern US.
- Neither coal, biomass nor gas should still be being burnt in our power stations. Instead of building new fossil fuel capacity, we need to massively reduce our energy use, and energy we do use should come from genuinely renewable sources such as wind, waves and sun.

The consultation is at repower.drax.com and is open until 27th February.

References

1. https://en.wikipedia.org/wiki/Camp_for_Climate_Action#Drax_2006
2. <https://www.drax.com/sustainability/sustainability-reporting/#drax-biomass-feedstock-mix-and-countries-of-origin-2016> Note that a tonne of pellets is made from around two tonnes of wood.
3. <http://www.biofuelwatch.org.uk/end-biomass-subsidies/#C1>
4. <https://www.dogwoodalliance.org/our-work/our-forests-arent-fuel/>
5. <http://repower.drax.com/wp-content/uploads/2018/01/Drax-Repower-Project-Overview-Report-Rev-3-08.01.18.pdf> 3.1.7
6. <http://repower.drax.com/#why-repower>
7. http://repower.drax.com/press_release/local-events-discuss-gas-battery-project/
8. For an introduction to what's wrong with CCS, see Greenpeace's briefing at <http://www.greenpeace.org/international/en/campaigns/climate-change/Solutions/Reject-false-solutions/Reject-carbon-capture--storage/>
9. http://www.eeb.cornell.edu/howarth/summaries_CH4.php for more info on methane and climate impacts.
10. <https://www.carbonbrief.org/qa-the-return-of-uk-fracking-and-what-it-could-mean-for-the-climate>
11. 'Unabated coal' in this context just means coal with no CCS.
12. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/672137/Government_Response_to_unabated_coal_consultation_and_statement_of_policy.pdf
13. <https://www.drax.com/about-us/our-businesses-and-projects/#our-projects>
<https://www.theguardian.com/business/2016/dec/06/drax-coal-opus-energy-gas-plants>
14. <http://www.abergellipower.co.uk/en/>
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<http://www.walesonline.co.uk/business/business-news/new-100m-gas-fired-power-14100357>
15. Drax has said it would operate the new units for up to 25 years and reassess the situation after that. <http://repower.drax.com/wp-content/uploads/2018/01/Final-SoCC-For-Issue-19.12.17-CLEAN-FOR-PRINT.pdf> p5.