

Stopping fossil fuel extraction – a lockdown approach

A Green House Gas by Anne Chapman

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*“Following a pathway leading only to net zero by 2050 is now too little too late.
There is no room left for manoeuvre, no carbon budget left to spend.”
The Final Warning Bell, Climate Action Advisory Group, August 2021*

If you are in a hole stop digging. Every time we burn fossil fuels - oil, gas or coal – turning their carbon, taken out of the atmosphere millions of years ago, back into carbon dioxide – we are effectively digging ourselves deeper and deeper into the vast hole we are in. The extreme, unprecedented heat wave in Canada and the north west of the USA this summer and the floods in Germany, Belgium and the Netherlands should alert us to the fact that stopping digging is now urgent. The ‘heat dome’ over the Pacific North West did not simply set new temperature records, it exceeded the previous record high in Portland, Oregon by 5 degrees, not just for one day but three in a row.¹ In 2015 Storm Desmond hit Cumbria and north Lancashire and turned roads into rivers, swept away numerous bridges and flooded the electricity sub-station in Lancaster, where I live, but only one person died. In Germany this summer over a hundred people died as a direct result of the flooding. I can’t believe that Germany is less prepared for flooding than North West England, so how much worse must the floods have been? For those skeptical of this anecdotal evidence that our climate is changing, there was the IPCC’s sixth assessment report,² published in August, that, following a careful review of all the evidence concludes that:

*It is unequivocal that human influence has warmed the atmosphere, ocean and land.
Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere
have occurred.
The scale of recent changes across the climate system as a whole and the present state
of many aspects of the climate system are unprecedented over many centuries to many
thousands of years.*

Burning fossil fuels is not the only way we are increasing concentrations of greenhouse gases in the atmosphere, but it is the major one. And other sources - such as the manufacture of cement and the release of nitrous oxide from soils as a result of the use of synthetic nitrogenous fertilizer or application of slurry from livestock - involve the use of fossil fuels.³ Mike Berners-Lee and Duncan Clark have talked about how the extraction of fossil fuels, their combustion and the carbon footprint of consumers are like three railway carriages linked together. There is a pull effect from consumption, but also a push effect from extraction: if consumers reduce their consumption the economy will create new goods and services to use the ‘saved’ fossil fuels somewhere in the world (p. 54 of Berners-Lee and Clark, 2013). For too long we have focussed on the front, carbon emissions end of this three carriage train. It is more than time to shift attention to the other end: to stop the extraction of fossil fuels.

The other aspect of our current approach is the priority given to life continuing pretty much as normal. We think that if we invest in renewable energy this will gradually replace fossil fuels. This has been spectacularly

¹ <https://www.carbonbrief.org/pacific-north-west-heatwave-shows-climate-is-heading-into-uncharted-territory>

² <https://www.ipcc.ch/report/ar6/wg1/>

³ The shortage of carbon dioxide for the UK food industry in September 2021 (used to make fizzy drinks, stunning pigs and chickens before slaughter, in packaging and decaffeinating coffee - <https://www.theguardian.com/business/2021/sep/21/what-caused-the-uks-energy-crisis>) was a result of the price of gas (fossil methane) being too high to make fertilizer production economically viable. The first step in the manufacture of nitrogenous fertilizer is the production of hydrogen (which is then combined with nitrogen from the air to make ammonia) from methane. The carbon in the methane forms carbon dioxide. The bubbles in your fizzy drink are thus contributing to global warming.

unsuccessful as a way of limiting greenhouse gas emissions: on a global level, renewable energy has added to our energy resources not replaced fossil fuels, the use of which has continued to rise. It is time to put the stability of the climate ahead of continuing with our way of life. We need to stop the extraction of fossil fuels now and live within the renewable energy resources that we have.

Unfortunately, we are so dependent on fossil fuels and the systems that use them that, even in a country like the UK, where over half of our electricity is generated by renewables or nuclear, doing without fossil fuels tomorrow would be extremely difficult. The attempt would probably lead to a great deal of suffering. But we now have recent experience of doing what seemed impossible, in the lockdowns called to contain the Covid-19 pandemic.

I am sure that many, like me, thought that the restrictions being placed on people in China in January 2020 could never happen here in the UK. But then there were the scenes from Italian hospitals in February and in the third week of March the UK government belatedly realized that something drastic had to be done to halt the spread of the coronavirus: so we were all told to stay at home. But this 'stay at home' directive came with exceptions: you were allowed to go out for a number of specific reasons, such as to exercise, buy food and other essentials, care for those needing it and to go to work if you could not work from home. If we had all stayed at home for months on end many would have died of starvation. Similarly, our dependence on fossil fuels is such that any 'stop burning' directive would have to include exceptions, for at least a limited period until we had found other ways of providing for our essential needs. But we should set a clear limit on how much fuel we are going to use. Perhaps continue extraction and import at current levels for one year, then stop completely and decommission wells, but use that fuel over say five years. Or ramp down production over a period of a few years.

Covid-19 lockdowns have made us more aware of what our essential needs are and therefore what exceptions there might need to be to a general ban on use of fossil fuels. For example:

- An allowance to households dependent on fossil fuel heating to stop people dying of hypothermia (but not so they could be comfortable in a T-shirt in winter) and to keep the vulnerable warm and well.
- Production and transport of basic foodstuffs (but not, for example, for the manufacture of ultra-processed foods, or fizzy drinks or the transport of food by air.)
- Production and supply of medicines
- Public transport
- An allowance for those who have an internal combustion engine car who have no alternative for essential journeys (but they would be first in line for an EV car).
- Essential services (health care, schools, police, fire service, and critical things like keeping nuclear waste safe)
- Activities that increase renewable energy and low-carbon transport, eg. manufacture/ import of bicycles, EVs, solar panels, electrification of the railways etc.

The ban on burning fossil fuels would also apply to the transport (including importation) of non-essential goods – so you would be able to use fossil fuel transport to import bicycles, heat pumps and food (while production here was ramped up) but not clothing and furniture. We might want to use some fossil fuels for long haul flights for essential purposes, but domestic and short haul flights are replaceable by other means of transport that can use electricity.

These exceptions would only apply for a limited period of time – I suggest 5 years. During that time economic activity would be directed to replacing these essential uses with renewable energy, then increasing the supply of renewable energy for other uses. Activities not covered by these exceptions would not be banned, they just would not be able to use fossil fuels.

The main form of energy would be electricity, but we would only have what we can generate from renewables. Its use would therefore have to be limited/rationed somehow, to ensure it was used for essential uses and not others. Any 'behind the meter' generation by households and organisations (eg. roof top solar PV) could be additional to this ration, as an incentive to install renewables. And communities with large scale renewable energy could be given preferential treatment. Local opposition to wind turbines or solar farms would melt away if having large scale renewable generation near you meant you had greater access to electricity.

The pandemic lockdowns were accompanied by measures to help people cope with certain businesses having to stop trading, such as grants to businesses and the furlough scheme. Similarly, the fossil fuel lockdown I am proposing should be accompanied by measures that help people to cope. There should be no bailout of fossil-fuel companies, airlines or other companies dependant on our current energy profligacy. Instead, governments should support communities (through local government - our experience of the pandemic suggests there would be a flourishing of community activity) and individuals. I suggest that the best way of doing the later would be capital payments, of several thousand pounds per adult, to enable people to make the investments they need (to insulate their home, buy an EV car or bike, or install a heat pump). In my view people should be trusted to decide what to do with this money – for some the best use of it might be to pay off debts. Many may want to save it and there should be government-backed funds in which people can invest securely and the money used to fund the renewable energy infrastructure we need to replace fossil fuels and to provide loans to businesses to help them adapt. As high-carbon expenditure (such as flying off on foreign holidays) would not be possible there is no need to worry that people would use this money on the 'wrong things' – that increase carbon emissions. The meaning of things that we associate with a 'green lifestyle' would change: insulating your home, taking the train or cycling would not be about reducing carbon emissions or 'saving the planet' but about enabling you to keep warm or to get around your local area or to go on holiday. There would be no need any longer to try to persuade people to reduce their carbon footprints.⁴

These capital payments to individuals would be a significant boost to the economy and the challenge for the government would be to ensure the supply of the things we would need people to spend them on: the ramping up of the production of EVs (but the immediate cessation of the sale of diesel and petrol vehicles); retraining the construction workforce to do home energy retrofits and install renewable energy systems and heat pumps; the supply of solar panels and wind turbines. Like the supply of armaments during the war there would need to be government oversight of these supply chains to ensure that we could adapt quickly. This should include free retraining for all those in fossil-fuel dependent sectors who will loose their jobs. The government would also need to invest in completing the electrification of the railways and in the reconfiguration of the electricity grid. The work involved in increasing the supply of renewable energy, re-localising our food system and the production of other goods would be substantial: we are more likely to have labour shortages than unemployment, provided appropriate investments are made in all parts of the country. Stopping use of fossil fuels would bring about a reorientation of our economy in ways that we probably can't quite imagine. I don't think we need to have it all worked out as to how things would work – the important thing is to get on and stop using fossil fuels then cope with the consequences and do our best to look after the vulnerable.

The degree of compliance with the COVID lockdown was surprising to many, driven by people's concern for others as well as for themselves. A fossil-fuel lockdown would not involve rules controlling where people go and how many people they meet and would in many ways be easier to enforce: extraction and import can be controlled and sale regulated through requiring a permit to buy them (it is important that the limited

⁴ Rebecca Solnit argues that fossil fuel companies, such as BP, promoted the idea of a carbon footprint because it puts the onus on the individual to change their lifestyle, taking the focus away from the role of fossil fuel companies in causing climate change - <https://www.theguardian.com/commentisfree/2021/aug/23/big-oil-coined-carbon-footprints-to-blame-us-for-their-greed-keep-them-on-the-hook>.

amount available are not simply sold to the highest bidder, for the rich to use in their private jets or over-heat their over-sized houses). There is a danger of a black market developing, but just as the black market in the war did not undo the overall aims of food rationing, a black market in petrol or diesel should not do too much to reduce the effectiveness of the system as a whole.

I am proposing that we should rapidly stop the extraction of fossil fuels and it may be countered that we don't just burn fossil fuels but use them for other things – such as a feedstock for the chemical industry and in the production of artificial fertilisers – so we should keep extracting them for these uses. The chemical industry can be considered to lock up the carbon in the fossil fuels in other materials rather than releasing it to the atmosphere (until people decide to burn waste plastic to get rid of it)– but it causes the mounting problem of plastic waste and the contamination of the biosphere with synthetic chemicals, which has massive implications for the health of humans and wildlife.⁵ Making artificial fertilisers involves the production of ammonia from methane, which releases carbon dioxide. The excess nitrogen in the environment resulting from use of the fertilizer then causes air and water pollution (by ammonia and nitrates) and the release of nitrous oxide – a powerful and long-lived greenhouse gas. These uses of fossil fuels need to be brought to a halt as much as we need to stop burning them. Stopping extraction is the simplest way to do this. It will force us to mine all the landfill sites and scour the oceans for plastic to recycle. However, we may have to scale back the production of artificial fertilizer over a few years to allow agriculture some time to adapt if food production is not to decline too dramatically.

Ideally of course, a fossil fuel lockdown should be global. However, failure to secure agreement on a global lockdown should not prevent a country such as the UK going it alone and showing the way, on the basis that if we go first others will follow.

Unlike COVID lockdowns the fossil fuel lockdown would not be temporary: the ban on extraction and import of fossil fuels would be permanent and exceptions to the ban would be removed over time. But as the economy and how we live adapted and the amount of renewable energy increased, things would improve over time. Some argue that by 2050 we will have virtually limitless renewable energy (Turner, 2020). This prospect should make a fossil fuel lockdown an easier sell: some pain and disruption now to preserve a livable planet, with life becoming easier over time as energy resources increase. However, this is not to say that that what I am proposing would be politically feasible. I am interested in setting out here what we should do, not what it is politically acceptable to do. But I do think it is what the Green movement should now be calling for. Limiting our ambition to what is considered to be politically feasible is wholly inadequate to the situation we are in. We should stop self-censoring ourselves and instead call for what is needed: a ban on fossil fuel extraction now.

References

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⁵ The decline in sperm counts seen over recent decades, along with other problems with our reproduction system, caused by our exposure to endocrine disrupting chemicals could, if it continues, be as disastrous for the future of the human race as climate change (see Swan, 2021).