



## COVID-19 and the Climate – Energy Nexus

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*Analysing the COVID-19 pandemic's impact on the climate-energy nexus, raises three important questions. First, what does this global health and economic crisis mean for the future of fossil fuels, particularly oil? Because of the drop in economic activity, greenhouse gas emissions have plummeted, but how can we ensure a structural decline that is aligned with the Paris Agreement? Third, how can we embed the ideas of a “just transition” within the broader post-pandemic “green recovery”? This policy brief offers a glimpse of the direction away from fossil fuels that our global energy system must take to govern the post-pandemic world*

### INTRODUCTION

How accurate does Charles Dickens' depiction of 18th century Europe remain: “It was the best of times, it was the worst of times.” The human toll of the COVID-19 virus is of course abundantly clear to everyone, while the economic fallout is now hitting workers and consumers all around the world. The International Monetary Fund (IMF) expects a blow to the EU economy of more than seven percent in 2020.<sup>1</sup> Much of the policy focus has therefore been directed toward

mitigating the direct impacts of the virus on, for example, temporary unemployment, and toward the short-term recovery once lockdown measures are (partially) lifted.

The COVID-19 pandemic has rightfully been depicted this as the “worst global crisis since World War II”. It is of course first and foremost a tragic health issue that has affected the whole world, with already hundreds of thousands of deaths in May 2020. Consequently, policymakers must have the audacity to think about what the world could and should look like after this, so as not to return to “business as usual”.

What better aspect of society to examine such prospects than the global fight against climate change—or what was once, before the pandemic, considered the “defining issue of our time”? Business-as-usual means going back to a scenario in which we are heading toward warming of more than 3°C by the end of this century, over 3.6 million yearly deaths worldwide due to fossil fuel-related air pollution, as well as armed conflict, economic underdevelopment and democratic regression because of dependency on fossil fuel resources. If indeed the recovery would entail drafting a new kind of society, then surely, tackling climate change will at the top of the agenda when contemplating long-term recovery strategies.

The pandemic has already (in)directly impacted many aspects of what can be conveniently called the climate-energy nexus—or the environmental, social, economic, technological and political relationship between energy systems and the climate. According to the International Energy Agency (IEA) due to a historic drop in energy demand, CO<sub>2</sub> emissions are expected to decline by eight percent this year.<sup>2</sup> During a simultaneous supply a demand shock, oil prices tumbled to a historic low—with WTI oil<sup>3</sup> for a short period trading at negative prices. And many countries have now asserted that we should focus on a green or climate-friendly recovery. In the case of the EU this would entail prioritising the Green Deal.

Following these developments, three policy-relevant questions stand out for those interested in the impact of the COVID-19 pandemic on the climate-energy nexus:

1. Is the pandemic accelerating the end of the “fossil fuel era”? If yes, what does this crisis mean for the future of fossil fuels, and oil in particular?
2. How can we ensure a structural drop in CO<sub>2</sub> emissions now that our fossil fuel dependence is increasingly questioned amid the health and climate crises?
3. How can we embed ideas associated with a “just (energy) transition” within the broader strategy of “green recovery”?

I attempt to formulate some answers and highlight potential ways forward to ensure both a just *and* green recovery.

### **THE BEGINNING OF THE END FOR THE FOSSIL FUEL ERA?**

Fossil fuels—oil in particular—have long been considered the lifeblood of our society. But the tide may be turning and COVID-19 could herald a change in fortune for the industry. The focus in this brief is on oil, because of its particular

importance for the world economy (much more than coal and natural gas) and the unexpected consequences that the pandemic have caused for oil specifically.

2020 has been quite the ride so far. On the supply side, an oil price war resulted from a spat between Saudi Arabia, the dominant force within the Organization of the Petroleum Exporting Countries (OPEC), and Russia. Amid dwindling oil prices, in the beginning of March, Saudi Arabia sought to reach an oil output agreement with Russia and OPEC+.<sup>4</sup> But Russia opposed, most probably because it was trying to win a bigger slice of a shrinking market. In response, Saudi Arabia raked up its production levels to historic highs, resulting in the biggest one-day drop in oil prices since the 1991 Gulf War.

In order to halt the world’s oil industry spiral out of control toward rock-bottom prices, especially the American president was eager to strike a deal. The United States’ position of largest oil producer in the world and its president’s ambition of establishing “energy dominance” were at stake. The shale industry, driver of the United States’ recent production boom, has a far higher breakeven price and is more debt-laden than national oil companies in Russia and Saudi-Arabia. So with persistently low oil prices, their very existence was at stake. On Sunday 12 April, OPEC+, with support from the G20 and the United States, agreed to cut a historic 9.7 mb/d of production—or close to 10 percent of global pre-crisis demand. This was supposed to calm international markets.

But the price stabilisation, predicated on more-or-less stable demand, did not substantiate. Far from that, actually. The pandemic wiped out almost a third of global oil demand because of lockdowns and travel bans. So in the past months, oil fields have been shut down, storage tanks have filled up rapidly and WTI oil prices

even turned negative for a while because of oversupply and lower demand.<sup>5</sup>

For the industry, this pandemic comes on top of another crisis: climate change. As climate change has been at the top of political agendas for a while now, oil demand is likely to peak much earlier than expected. Some even suggest that demand may have already peaked. One of America's most well-known stock exchange analysts, Jim Cramer, late-January announced that oil stocks are in their "death knell phase". He compared oil fossil fuel stocks to the normative stigma that is attached to investing in tobacco companies.

But the distaste for oil stocks and investments does not only come from moral activists. Financial storm clouds had been gathering above the fossil fuel industry for a while. Already back in February, the CEO of the energy supermajor Shell, Ben van Buerden, remarked that "all economic indicators are against us." The energy sector's weight in the S&P 500, the list of the United States' largest publicly-traded companies, had dropped from almost 16 percent in 2008 to well under four percent at the beginning of 2020.

Moreover, reporting suggests that ESG funds have vastly outperformed the wider global stock index since the COVID-19 crisis hit the markets by avoiding exposure to oil and other energy sectors. The renewables sector is forecast by the IEA to be the only part of the global energy system that will grow this year, with production and installation costs continuously falling.<sup>6</sup> More evidence that highlights the appeal to investors of renewables over fossil fuels: The oil price crash in March has led Orsted (a Danish off-shore wind developer) to overtake the Norwegian oil major Equinor as the most valuable energy company in the Nordic countries.

And what can we expect from "Big Oil" itself? Not too much it seems. Despite recent calls by some energy majors to reach net zero emissions across all its operations and production by mid-

century, their efforts are at best haphazard. A recent IEA report shows that in 2019, 99.2 percent of oil and gas majors' capital spending went to fossil fuels, and only 0.8 percent was directed to renewables and carbon capture and storage projects.<sup>7</sup> One of the industry's last straws to attract investors, its consistently high dividends, is now under threat as well due to falling oil prices. For the first time since World War II Shell is now cutting its dividend.

This shows that the oil price crash and turmoil in global markets does not necessarily have to derail the clean energy transition. The oil industry is at a turning point, although it will not go down without a fight. Everywhere, the fossil fuel sector is quickly ramping up its formidable lobbying power to influence all types of regulations, from environmental protection to financial bailouts and subsidy increases. Moreover, climate change efforts risk being delayed because of cheap oil and a global recession that will get most political and financial attention.

In any case, we are now witnessing a cautious change in the social licence of the oil industry. Not just among activists, but also among financial, economic and political decision-makers. Combatting the sector is perhaps no longer only reserved for climate campaigners. In other words, Greta Thunberg and other climate strikers might soon find an unlikely ally in the financial sector. This would strengthen the appeal for further climate action as the world starts recovering from the COVID-19 crisis. As many decision-makers are now contemplating integrating aspects of a "green transition" into their recovery plans, a managed, yet rapid decline of fossil fuel production and consumption should be considered, while investments in renewables should be prioritised.

## ENSURING STRUCTURAL CO<sub>2</sub> DECLINE

The decline in oil demand and economic lockdowns all around the world quickly resulted in a reduction

of various types of environmental pollution, including greenhouse gas (GHG) emissions such as CO<sub>2</sub> and N<sub>2</sub>O, as well as aerosols, short-lived gases and harmful particulate matter. NO<sub>2</sub> levels, associated with industrial and automotive combustion processes, also declined. In China alone, due to the lockdown measures CO<sub>2</sub> emissions declined by 25 percent (or 200 MtCO<sub>2</sub>) lower in February. Data from the European Environmental Agency revealed that an immediate lockdown effect could also be observed here in the EU. Air pollution levels dropped spectacularly in cities such as Rome, Madrid, Milan and Barcelona.

In the past couple of decades, only twice did a real yearly decrease in CO<sub>2</sub> emissions occur; when the Soviet Union collapsed and after the global financial crisis hit in 2008-2009. During the latter crisis, the world witnessed a 1.4 percent decline in CO<sub>2</sub> emissions.<sup>8</sup> As I mentioned, carbon emissions are expected to decline by eight percent this year, with the greatest absolute fall in emissions coming from the United States, the EU and China. Surely, this is the greatest drop ever, more than during any other crisis or war.

But global emissions would need to fall consistently by 7.6 per cent each year between 2020 and 2030, according to the UN Environment Programme, in order to reach the 1.5°C warming objective enshrined in the Paris Agreement. By no means it is a given that the 2020 emissions drop is structural. On the contrary. Post-crisis emissions are highly dependent on the mode of recovery. After the financial crisis, emissions rose again by almost six percent in 2010. If low carbon development strategies and policies are not rolled out in the economic stimulus packages responding to the COVID-19 pandemic recovery, emissions will recover and even overshoot previously projected levels by 2030.<sup>9</sup>

EU institutions and member states have already signalled their willingness to proceed with the Green Deal and they have reiterated calls to put “green transition” at the heart of recovery plans. Although

political contestation to such plans are inevitable. Francesca Colli wrote an excellent piece outlining the effects of COVID-19 on the EU Green Deal in another Egmont policy brief. She describes three key difficulties with the Green Deal. First, a lack of public, media and political attention to the climate crisis due to the acute pandemic. Second, economic recession impeding (public) investments in green and climate-friendly sectors. Third, a loss of trust and solidarity among EU states.<sup>10</sup>

How climate, clean energy and environmental considerations will be integrated in the economic recovery plans of course remains subject to ideological discussion. Some countries are trying to put a “green recovery” at the heart of their stimulus plans, while others at best seem hesitant. But behavioural change is much harder than rhetorical commitment. Researchers at Oxford University have found that G20 nations have already spent 7.3 trillion USD on (fiscal) recovery measures. They estimate that only four percent of policies are ‘green’, with potential to reduce long-run emissions, four percent are ‘brown’ and likely to increase net emissions beyond the base case, and 92 percent are “colourless”, meaning that they maintain the status quo on course for over 3°C warming.<sup>11</sup>

What is clear, however, is that governments—and therefore “the state”—are back. All eyes are on their intervention in safely guiding societies through this crisis. In this context, a strong state, with new-found confidence, could once again the lead in (inter)national climate action as well. Without merely seeing themselves as facilitators for “the market”. One way in which states can establish this, is by making public financial support “climate conditional”. In that case, airlines can receive public support only if they comply with certain demands, such as cancellation of short-haul flights, increase in cooperation with rail companies, heavier use of eco-friendly fuels and bigger tax contributions.

But to broaden the appeal to workers and consumers of a state-led green recovery, in which fossil fuels are gradually phased out, policymakers also have to take

into account issues around fairness, solidarity, and justice.

## RECONCILING THE GREEN RECOVERY AND A JUST TRANSITION

Even if the focus is put on a “green recovery”, this does not mean that the recovery will be “just”. In terms of economic support mechanisms, the situation of workers in the gig or platform economy, who generally have with week, day or zero-hour contracts, stands out. Many of them are now unemployed. Since they are not under contract, they cannot claim temporary unemployment benefits. This is only one example of a justice question that will require a political solution in the weeks and months to come.

One sector, where the “green recovery” and “just transition” meet, is aviation. One of the most hard-hit sectors. The International Civil Aviation Association (ICAO) is expected losses to run up to USD 112-132 billion in the first half of 2020. It expects 503 to 607 million less passengers in the same period. All over the world, the sector is demanding government intervention through government bailouts. In Belgium there is an ongoing discussion about whether or not to nationalise Brussels Airlines. The Italian government took full control over Alitalia in March.

But direct emissions from aviation also account for about 3 percent of the EU’s total greenhouse gas emissions and more than 2 percent of global emissions. If global aviation was a country, it would rank in the top 10 emitters. If government’s opt to bail out airlines, they should set strict climate conditions for a sector that was previously projected to increase its emissions by 300 percent by the year 2050. This could potentially include demands to reduce or stop short-haul flights, increase cooperation with rail companies, heavier use of eco-friendly fuels and bigger tax contributions. Austria is one country where this is added to bailout negotiations.

Taxation is key to organising not only a green, but also a just and equitable transition. The aviation industry is notorious for its tax exemptions around the world. In the EU for example, airlines do not pay taxes on kerosene, while in almost no country do they pay VAT. Working conditions at airports and (low-cost) airlines are also sub-standard in many (EU) countries. Yet, in the UK, the billionaire owner of the airline company Virgin Atlantic, Richard Branson, has come under scrutiny for demanding a bailout. Branson has paid no personal income tax since moving to the tax free British Virgin Islands 14 years ago. He lives and works on his own private island.

It is crucial for governments, when considering bailouts, to include social issues into their climate conditional relief packages for airlines and airports. This includes, but should not be limited to, fair wages for baggage handlers, no increase in managerial remunerations or dividend pay-out during the crisis, aviation tax reform (on an EU level)<sup>12</sup>, and no bailouts for companies that are registered in tax havens. The latter is a Danish precedent that ought to be emulated throughout the EU.

This discussion is to illustrate that national solidarity mechanisms and justice considerations will be crucial in tackling the pandemic. But just as with the climate crisis, it becomes clear that transnational justice ought to be a central pillar of recovery plans. In specific, the relationship between the Global North (or developed economies) and the Global South (or developing economies) is key here.

COVID-19 actually could wreak most havoc in poor, developing countries. Very simplistically put, the seemingly easy measure of “social distancing” cannot be ensured everywhere. What if you live in an over-crowded slum or a Syrian refugee camp? What if recent disease outbreaks, such as Ebola in the DRC, are already putting an immense strain on a poorly developed health system? What if the vast majority of the workforce is employed in the informal economy and there are no social safety nets for these workers once a lockdown is announced?

What if a government spends more on external debt than it does on the public health system?

Oxfam reports that between six and eight percent of the global population could be forced into poverty, setting back the fight against poverty by a decade, and as much as 30 years in some regions such as sub-Saharan Africa and the Middle East and North Africa.<sup>13</sup> So indeed, these questions require transnational solidarity and cooperation mechanisms.

One way of doing so, is debt cancellation. Many developing are now facing a debt crisis, because of heavy lending on international financial markets in the recent past. Furthermore, these debts also reveal the structural injustices embedded in international finance flows, because they often include decades-old repayments to former colonisers.

External debt now impedes governments to invest in other critical services, such as the public health sector. Research shows that among the 121 low and middle-income countries for which 2019 data was available an average of 10.7 percent of government revenue was spent on public health systems, compared with 12.2 percent on external debt payments. Of the 121 countries examined, 64 were spending more on debt servicing than on public health.<sup>14</sup>

Cancelling a country's debt payments in 2020 would, for instance, enable a government to give a cash grant or lump sum to its citizens in order to soften the financial blow of the COVID-19 crisis. The IMF and World Bank have issued a statement, urging bilateral creditors to suspend debt payments from the poorest countries so they can free up resources to combat the crisis. Concretely, the immediate suspension of developing countries' debt for a year, and, where needed, complete cancellation thereof should be considered. Cancelling debt payments is the fastest way to keep money in countries and to free up resources to tackle the urgent health, social and economic crises resulting from the pandemic.

This discussion shows how an acute global health crisis, such as the COVID-19 pandemic, simultaneously reveals structural injustices within and between countries all around the world. Moreover, given the similarities between the climate crisis and this pandemic, we can learn a lot from discussions about just transitions. Indeed, as the virus rages throughout societies everywhere, we are once again confronted with the fact that this is not the "great equaliser" and that we are not all victims. There are inequalities in which groups of the population, which countries are mostly affected. Clear policy choices, on national and international level, can help distribute more equally the costs of the health and financial crisis, and the benefits of the economic recovery measures.

## A WAY FORWARD

The climate crisis and energy transition have been pushed to the back of the news because of COVID-19. But as the world is grappling with what looks like to become the largest economic shock since the Great Depression, the "Great Lockdown" also appears to provide some opportunities, especially in light of a green and just transition.

One key socio-economic and political development is that the state is once again at the heart of economic decision-making. This is pivotal for the four categories of policy recommendations that follow from this brief:

A first is that recovery plans should kill two birds with one stone: economy and climate. Green economic stimulus package focused on low carbon energy system development and infrastructure will have a fundamental effect on reducing emissions during the recovery. They have been proven to be more economically resilient during this crisis and they are more beneficial overall to long-term economic development.

Second, measures that put forward the managed decline of fossil fuels should be central to every green recovery plan. This includes no easing of

environmental regulations, a phase-out of fossil fuel subsidies, and no bailouts for fossil fuel-related companies. This of course excludes relief packages for workers become unemployed due to coal plant shutdowns for example, or the financing of retraining programmes for fossil fuel workers.

Third, fair distribution of costs and benefits is the most important. On a national, or EU level, this includes holding companies accountable for tax avoidance, designing inclusive unemployment measures so all types of affected workers can be relieved, or demanding other financial contributions such as prohibitions on dividend pay-outs.

Fourth, this also entails ensuring international solidarity cooperation mechanisms between rich and developing economies. One such solution could be debt cancellation or restructuring. The EU's climate finance programmes can serve as a policy example for this aspect of the green recovery.

Dickens' Tale of Two Cities ends with a country in turmoil, during the French "Reign of Terror".

Similar crushing social defeat today can only be averted by audacious, optimistic thinking and policymaking. Now is the time for our leaders to act. Only then, citizens will, as Dickens put it, "hold a sanctuary in their hearts, and in the hearts of their descendants" for their leaders today.

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## Endnotes

<sup>1</sup> IMF (2020) World Economic Outlook, April 2020. Available at: <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>.

<sup>2</sup> IEA (2020) Global Energy Review 2020. Available at: <https://www.iea.org/reports/global-energy-review-2020>

<sup>3</sup> West Texas intermediate (WTI) is a grade of crude oil used as a benchmark for American oil prices.

<sup>4</sup> OPEC+ is a group of 24 oil-producing nations, made up of the 14 members of OPEC, and 10 other non-OPEC members, including Russia. They have cooperating since 2016 to cut production levels in order to maintain price

<sup>5</sup> Sheppard, D. (2020) Pandemic crisis offers glimpse into oil industry's future. Financial Times, 3 May. Available at: <https://www.ft.com/content/99fc40be-83aa-11ea-b872-8db45d5f6714>

<sup>6</sup> Hook, L. (2020). Renewables sector shrugs off devastating effects of coronavirus. Financial Times, 6 May. Available at: <https://www.iea.org/commentaries/what-the-2008-financial-crisis-can-teach-us-about-designing-stimulus-packages-today>.

<sup>7</sup> IEA (2020) The Oil and Gas Industry in Energy Transitions. Available at: <https://www.iea.org/reports/the-oil-and-gas-industry-in-energy-transitions>

<sup>8</sup> Peters, G. et al. (2012) 'Rapid growth in CO2 emissions after the 2008–2009 global financial crisis' *Nature* 2, 2-4.

<sup>9</sup> Climate Action Tracker (2020) A government roadmap for addressing the climate and post COVID-19 economic crises. Available at: [https://climateactiontracker.org/documents/706/CAT\\_2020-04-27\\_Briefing\\_COVID19\\_Apr2020.pdf](https://climateactiontracker.org/documents/706/CAT_2020-04-27_Briefing_COVID19_Apr2020.pdf)

<sup>10</sup> Colli, F. (2020) The end of 'business as usual'? COVID-19 and the European Green Deal. Available at <http://www.egmontinstitute.be/content/uploads/2020/05/EPB60.pdf?type=pdf>

<sup>11</sup> Hepburn, C., O'Callaghan, B., Stern, N., Stiglitz, J., and Zenghelis, D. (2020) 'Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?', Smith School Working Paper 20-02.

<sup>12</sup> This can include frequent flyer levies, tax on kerosene or increased VAT on airline tickets.

<sup>13</sup> Oxfam (2020) Dignity not Destitution. Available at: <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620976/mb-dignity%20not%20destitution-an-economic-rescue-plan-for-all-090420-en.pdf>

<sup>14</sup> Elliott, L. (2020) Pressure grows for developing world debt relief over coronavirus. *The Guardian*, 12 April. Available at: <https://www.theguardian.com/business/2020/apr/12/pressure-grows-for-developing-world-debt-relief-over-coronavirus>