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The Business of Climate Transformation

PETER NEWELL

Scientists often talk about tipping points in the climate system. These can be points of no return, most drastically when a safe climate system for humanity disappears. But tipping points may also occur when confusingly named “positive feedbacks” reinforce one another—as when melting ice releases methane, which further warms the atmosphere, leading to more melted ice, and so on. All the indications are that in the absence of dramatic change, we are on course for further climate chaos with devastating implications: what has been described as a “hothouse earth” scenario.

Is it possible that recognition of the scale and severity of the climate emergency might also trigger a series of political, economic, and social tipping points? Will an existential threat of this nature drive technological breakthroughs, mobilize unprecedented amounts of funding, and kick-start political action? The picture, at best, is mixed.

There is some evidence that such changes might be happening here and there as the world comes to terms with the scale of the threat. Shifts are now under way in four arenas: finance, business, civil society, and the state. These shifts provide at least some grounding for evidence-based hope. But it should be recognized that current efforts are largely focused on incremental transitions through the narrow pursuit of decarbonization, rather than on the deeper transformations in the economy that befit a crisis of this nature. An adequate response would require shifts in power.

RESTLESS CAPITAL

Start with money. Historically, finance has been the lubricant of the fossil fuel economy, beginning with the oil barons who drove the oil exploration rush in the United States. The early financiers of energy entrepreneurs such as Thomas Edison included J. P. Morgan and other moguls of that era: the Vanderbilts, the Astors, and the Rockefellers. Today, the fossil fuel economy continues to be kept afloat by vast flows of private finance, lending from regional and multilateral development banks, and state subsidies that amount to some \$10 million a minute, according to the International Monetary Fund.

Current debates are about mobilizing, scaling up, and “de-risking” finance so that investments in lower-carbon alternatives match the enormity of the challenge and become more attractive to private investors anxious about returns. The most urgent challenge, however, is not finding new outlets for finance; it is redirecting finance and divesting from the businesses driving us down the destructive pathway we are on. Because of perverse incentives, business as usual continues to be highly profitable.

Yet financial actors are now under unprecedented scrutiny, facing demands to pull the plug on the fossil fuel economy. There is growing pressure on pension funds, endowments, and sovereign wealth funds to divest from fossil fuels. The divestment movement has had some success in this regard, thanks largely to the climate advocacy group 350.org and its alliance with student activists.

To date, 688 institutions and nearly 60,000 individuals across 76 countries have committed to divest from fossil fuel companies. By 2018, the movement marked its one-thousandth divestment. The approximate value of divestments by institutions (1,327 to date) is now estimated to be \$14.58 trillion.

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The language of “stranded assets” has gone mainstream, highlighting the fact that investments in fossil fuel reserves and infrastructure could be lost because their extraction and use are incompatible with ambitious climate targets. In other words, fossil fuel assets are at risk of becoming what the think tank Carbon Tracker calls “unburnable carbon.” The degree to which companies are exposed is also becoming clearer. Pressure is mounting on them to divulge their fossil fuel assets through initiatives such as the Carbon Disclosure Project, which over 200 major buyers, with a combined purchasing power of \$5.5 trillion, have asked their suppliers to join.

Shareholders are getting worried. There has been an upturn in shareholder activism in recent years. Even ExxonMobil, long one of the most stalwart opponents of climate action, was defeated in a May 2021 shareholder vote in which Engine No. 1, an activist investment firm demanding that Exxon accelerate a transition to clean energy, succeeded in electing three nominees to the company’s board of directors.

Even more proactively, there are a number of joint investor initiatives aimed at the world’s largest greenhouse gas emitters. The Climate Action 100+ initiative, for example, enlists fund management firms to work with the 100 most important emitters, which together account for two-thirds of annual global industrial emissions, to implement decarbonization plans.

Different tools and strategies are required to move different types of finance out of the carbon economy. An increasing number of campaigns target public financial bodies, seeking to persuade them to withdraw their lending from fossil fuel projects. These campaigns have met with some success at the European Investment Bank, the World Bank, and the export finance agencies of individual governments, including those of the United States and the United Kingdom.

The latter, after a sustained civil society campaign, agreed to end export financing for most fossil fuels. The World Bank and the French development agency have agreed to full exclusions of finance for the exploration and extraction of oil and gas. Sweden’s development finance agency, Ireland’s national investment fund, and the European Investment Bank are among those that exclude financing for all fossil fuel projects from their portfolios.

These are the grounds for hope that restless capital will once again drive technological revolutions through the process Joseph Schumpeter described as “creative destruction,” whereby obsolete industries are replaced by more profitable ones. That is a role it played in previous technological paradigm shifts, from the Industrial Revolution to mass production and the information technology revolution.

There is optimism, for example, about green bonds: bonds specifically intended to be used for climate and environmental projects. These are issued by organizations like the International Finance Corporation and NGOs such as the Climate Bonds Initiative, which have their eyes on a \$1 trillion market. “Green” is said to be the new “black,” supplanting oil company bonds.

Meanwhile, the drive for net zero emissions is expected to reignite markets for carbon trading through the United Nations’ offset mechanisms, which issue carbon credits to projects that reduce greenhouse gas emissions, and in voluntary markets for carbon offsets. Both function on the principle that these projects allow

countries, companies, and consumers to pay for emissions reductions elsewhere, where it is cheaper to do so than to reduce them at the source.

The trading of emission rights also continues apace, not only in the flagship European Union Emissions Trading scheme, but in dozens of other national and subnational jurisdictions as well. China and Mexico are expected to have schemes operational in the next few years.

But amid the undoubted progress being made, we need to recognize the limits of finance as a transformational force. Finance searches for new outlets for investment and seeks to create new demand for products and services. This drives higher levels of production and consumption—at the very time that wealthier parts of the world need to be living not just differently but with less.

There is also a darker side to financialization—the process of extending the trading of financial instruments to new areas, including those where money can be made speculating and capitalizing on encroaching climate chaos. Indicative of this trend is the rise of catastrophe bonds, weather derivatives, and crop insurance marketed to poorer farmers to protect their yields from a problem they played no part in causing.

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Placing too much faith in carbon trading as a market fix is also misplaced. It has failed so far to produce the depth and speed of change required, and it is riddled with technical problems of double-counting and exaggerating emissions savings to boost the value of traded carbon. Offsets in particular bring few social benefits, and in some cases cause damaging impacts to communities expected to host the projects funded through these offset mechanisms, leading to allegations of greenwashing.

This raises serious issues about the differential effects of these investments, with some places and people bearing disproportionately greater costs than others. For an equitable climate transformation to occur, we need stronger forms of governance and steering to guide investment to where it is needed—but we also need to set limits and cut the supply of finance to activities, infrastructures, and investments that would lock in further climate chaos.

INDUSTRY ENDGAME

The history of business engagement with the climate issue has often centered on intense lobbying to discredit the science of climate change through misinformation, to exaggerate the costs of climate action in order to protect incumbents' market share, and to thwart targets and regulations that pose a threat to the fossil fuel economy. Although most corporations have now conceded that climate change is a threat and that there is a case for taking action, they continue to spend spectacular sums of money to gain access to policymakers and influence the ways in which governments respond to the crisis.

Political giving by the fossil fuel industry exceeds donations from the renewables sector by a ratio of 13 to 1. During the latest midterm elections cycle in the United States, the industry spent at least \$359 million on federal campaign donations and lobbying. As of December 2019, 134 members of Congress and their spouses owned as much as \$92.7 million worth of stock in fossil fuel companies and mutual funds.

This has global implications, given the influence of the United States in global climate politics. The world's five largest publicly owned oil and gas companies spend approximately \$200 million every year on lobbying designed to control, delay, or block binding climate-motivated policy.

But even the oil majors are feeling the heat, and not just from activists. They are under pressure

from their own shareholders, who are justifiably anxious that fossil fuel investments once seen as valuable assets are increasingly recognized as liabilities in a world of more ambitious climate targets, rising carbon taxes, and the like. Yet many companies are still set on expansion, while managing pressure to reduce their emissions with fanciful proposals to reach the goal of net zero. As is the case with Shell's net zero strategy, announced in 2021, these proposals often imply the massive acquisition of forest cover to absorb planned growth in emissions from further extraction. But the oil majors know that their sector is in its endgame, and many are seeking to reposition and rebrand themselves as energy companies rather than fossil fuel giants.

This brings us to the business of rapid transition. Although the strategy adopted by many companies amounts to managing decline and buying time, there is scattered evidence of businesses adopting new models. Some have accepted responsibility for emissions produced throughout their supply chains and by the users of their products, or for the emissions they have generated throughout their existence. Microsoft, for example, has pledged that it will remove its historical emissions from the atmosphere by 2050. Some companies have adopted science-based targets that seek to align their corporate strategies with the goals of the Paris Agreement.

There are some interesting shifts taking place, but the devil is always in the details, and inconsistency is rife. Big brands may adopt impressive pledges, but then continue to support fossil fuel industries. As part of its climate pledge, Amazon announced in late 2019 that it would shift its energy consumption to 80 percent renewables by 2024 and 100 percent by 2030. Yet it still funds climate action–delaying policies and climate change–denying think tanks such as the Competitive Enterprise Institute. It also provides artificial intelligence technologies to help advance oil and gas exploration.

True corporate leaders will make climate action part of their core business models rather than engage in tokenism. There is currently scant evidence of more transformational models that go beyond niche moves and are aimed at enabling reduced production and consumption. One example of a more transformative approach, however, is B Corporation certification, which is awarded by the nonprofit organization B Lab to businesses in countries around the world that meet the highest

standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose.

BLOCKADES AND LAWSUITS

A growth-based economy that has no notion of boundaries or sufficiency is running up against planetary limits. History suggests that a transformation at the depth and scale that is now required to address climate change will not come about without extensive and active engagement from civil society. That is certainly the case if past struggles against apartheid, colonialism, and patriarchy are anything to go by. Encouragingly, the level and breadth of engagement with climate change by social movements including labor, human rights, gender equality, and indigenous groups is already awe-inspiring.

The state is often the target of social demands. But businesses and investors, because of the everyday power they wield through their investment decisions and ability to shape consumer preferences, are increasingly targeted. I have described this as *civil regulation*: civil society–based regulation of the private sector, aimed at filling some of the gaps caused by the reluctance or inability (or both) of governments to regulate businesses for fear of driving them away.

Civil regulation takes a number of forms. It can involve boycotts of companies engaged in climate denialism, such as ExxonMobil, or those implicated in localized pollution or human rights violations, like Texaco and Shell, in places as diverse as Ecuador and Nigeria. It may also entail proactive negotiations to establish corporate codes of conduct, or setting up roundtables and certification schemes.

Beyond these fairly conventional forms of protest are more confrontational approaches. In her book *This Changes Everything: Capitalism vs. The Climate*, Naomi Klein coined the term “blockadia” to describe a centuries-old strategy by which people have resisted corporate and state incursions into their lands for the purpose of extraction. Recent research has documented the impact of climate mobilizations of this kind: over a quarter of fossil fuel projects that encountered social resistance have been canceled, suspended, or delayed. An environmental justice atlas produced by the EJOLT network showcases the extent of resistance to fossil fuel infrastructures across all continents.

This opposition represents an additional cost and both financial and reputational risk for investors and firms engaged in the last-gasp rush for remaining fossil fuels.

Litigation forms another plank in the activist repertoire. A recent verdict in the Netherlands against Shell has sent waves of shock and alarm throughout the energy sector. Invoking the nonbinding UN Guiding Principles on Business and Human Rights, a district court in The Hague in May 2021 ordered Shell to achieve a specific emission reduction target (a 45 percent cut by 2030, compared with its 2019 levels) along its entire supply chain, effectively suggesting that the company had to cut back production. Dutch environmental group Milieudefensie had sued Shell, alleging that the company was violating Dutch law and human rights by failing to adequately reduce its emissions.

In recent years, climate lawsuits have been filed against other major companies, including Total in France and Exxon in the United States. A case was brought in the Philippines against 47 of the biggest fossil fuel companies, called the “carbon majors,”

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managing decline.*

by Greenpeace on behalf of Filipino communities afflicted by Typhoon Haiyan in 2013. After a four-year inquiry, the Commission on Human Rights of the Philippines in December 2019 announced that the carbon

majors could be found legally responsible for human rights violations through their role in causing climate change.

Litigation has also been launched against individual fossil fuel projects, from coal mines in Australia and the United Kingdom to oil and gas pipelines in the United States. These cases build on a longer history of activism, drawing on tort law and human rights traditions to contest the climate and other environmental impacts of both fossil fuel extraction and combustion.

It is important not to underestimate the legal, financial, and political barriers to using the law to hold corporate and state actors to account for inaction on climate change. But it is also clear that legal activism as a means to address the climate crisis is here to stay.

WHAT STATES CAN DO

Although in a neoliberal age it remains popular to disparage the role of the state, all businesses rely on state support through the provision of

infrastructure and a trained labor force, as well as laws and regulations to ensure fair competition. They also receive extensive fiscal and financial support through tax breaks, subsidies, and the like. Whether as nightwatchman, entrepreneurial investor, welfare state, or regulatory authority, government has a vital role in setting the terms of the transformations required to address climate change. States need to step up in all sorts of ways: supporting new forms of innovation, financing new infrastructures, disrupting and managing the decline of existing ones, and mitigating their social impacts.

There is evidence that at least some governments are doing some of these things. From bold visions for a Green New Deal in Europe and the United States, to “first movers” setting limits on the production and supply of fossil fuels, promising signs of responsible leadership have emerged. This sends a clear signal to the private sector about the direction of change and states’ commitment to meeting the climate challenge.

Several countries in recent years have adopted moratoria and bans on fossil fuel extraction. France announced in December 2017 that it would phase out oil and gas exploration and production. In the same month, Belize announced a moratorium on all offshore oil activity. Denmark implemented a ban on onshore oil and gas exploration in February 2018. New Zealand banned new offshore oil exploration licenses in April 2018. Ireland enacted a ban on future oil exploration licenses in September 2019. The challenge now is to widen this circle of first movers to include some major fossil fuel producers—perhaps under the umbrella of a new agreement such as a Fossil Fuel Non-Proliferation Treaty.

Ultimately, governments are societies’ stewards, with the responsibility to protect current and future generations from the worst effects of climate change. They issue businesses licenses to operate and have at their disposal a range of regulatory tools and an ability to mobilize vast sums of money to tackle major threats. That is something they have shown themselves willing and able to do in response to the COVID-19 pandemic, helping companies to convert their production lines on short notice to produce ventilators, hand sanitizer, and masks. Confronting climate change requires a similar level of rapid industrial conversion of carbon-intensive sectors to meet the need for deep decarbonization of the economy.

CONFRONTING VESTED INTERESTS

More ambitious climate action is often held back by the power of vested interests. Beneficiaries of the fossil-fueled status quo use their power to resist change and preserve their market share. In the case of state-owned enterprises, the state is effectively being asked to regulate itself and wind down what has been a profitable source of revenue for some countries, even if it has proved to be a resource curse for many others. The line between government and business becomes very blurred.

Saudi Arabia’s delegation to climate negotiations is largely composed of officials with ties to the state oil company Aramco and a direct stake in its profitability. At the United Nations climate summit in Madrid (COP25) in December 2019, over 40 Gulf state delegates were current or former employees of fossil fuel companies. The conflicts of interest are clear to see, and their political implications can be fatal.

Climate policy itself must undergo a transformation. This means rolling back incumbent powers that are frustrating ambition and passing on costs to the rest of society—to say nothing of future generations. Countering them requires measures such as independent oversight of targets and budgets, stronger mechanisms for holding governments to account for their obligations, registries of interests to avoid revolving doors between fossil fuel lobbying and government positions, and an increase in the transparency and regulation of donations to political parties.

Such measures must be combined with efforts to amplify the voices of those most affected by climate inaction and the effects of climate change. The potential beneficiaries of more ambitious climate action should be heard. Concrete options include the expansion of indirect representation for future generations, following the examples set by parliaments in Wales, Hungary, and Israel. Another approach is deepening citizen participation in climate assemblies, as has been tried in Britain, Ireland, and France.

Beyond enhancing the representation and participation of citizens in climate policy, another imperative is opening up decision making on energy, industrial, trade, and agricultural policies to broader public scrutiny regarding compatibility with climate policy goals. In these fundamental ways, the conduct of our politics needs to adapt to the urgency of deepening and scaling up action to minimize further climate chaos.

FROM TRANSITION TO TRANSFORMATION

Are such proposals enough to deal with the climate crisis? The honest answer is that we cannot yet know what all these initiatives will add up to in the longer term—but it is likely that they will not suffice, given the countervailing trends in the economy that undermine and dwarf the gains seen to date. The Production Gap report issued in 2020 by the UN Environment Program and the Stockholm Environment Institute has shown that despite everything we know about the severity of climate change and its potential to deepen existing inequalities and injustices, fossil fuel production in 2030 will still be more than double what would be consistent with the Paris Agreement's goal of limiting the global temperature increase since pre-industrial times to 1.5 degrees Celsius.

To follow a 1.5°C pathway, the world will need to reduce fossil fuel production by roughly 6 percent per year between 2020 and 2030. As projected by the UN Emissions Gap report, however, the inadequacies of current commitments leave us on course for an increase of 3 to 4 degrees. That would be a catastrophic level of warming.

Emergent transitions in the energy sector and the broader global economy have been promising, but they have yet to bend the emissions curve. Incremental technological shifts and adjustments to business models have largely ignored the obvious need to get to the roots of the problem—which lie in unsustainably organized systems of production, consumption, work, and income. This deeper political economy driving the current crisis has been kept off limits.

Changing it will involve a more fundamental rewiring of the economy than anything we have seen to date. It might mean working less—or at least working differently and sharing more. It will certainly require accepting limits on the production and consumption of fossil fuels.

A climate transformation entails moving beyond substitution and “plug and play” solutions, whereby new technologies or energy sources are added to the mix but little effort is made to reduce demand or to rethink the provision of necessities such as mobility, heating, and cooling. Meanwhile, the costs of the current trajectory are hidden, downplayed, and displaced onto poorer groups within societies and around the world—and onto future generations.

Rapid and just transitions are urgently required in the subsystems of energy, housing, transportation, and food. But without deeper, transformational shifts in power over finance, production, technology, and governance, we are unlikely to deliver change at the speed and scale required.

Meeting the climate challenge ultimately requires a more disruptive politics: one that deliberately rebalances systems of participation and representation toward hearing and acting on the needs of poorer groups and others with an interest in more ambitious action, while reining in the power of incumbents who have stalled action for so long, and at such a high cost to society. Most importantly, this rebalancing is needed not just in climate policy, but in related policymaking on energy, trade, and industry, where decisions that are literally life-changing are made on a daily basis, with implications for us all. ■

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