Businesses lead where US falters

Erica Gies

The Paris Agreement requires commitments from countries to take action and reduce emissions, but the corporate world is also looking at its contribution to mitigation.

Two days before President Donald Trump announced that the United States, the world's second largest emitter of greenhouse gases, would pull out of the Paris Agreement, United Nations (UN) Secretary-General António Guterres spoke to future business leaders at New York University's Stern School of Business[1]. "The message is simple," he said. "The sustainability train has left the station. Get on board, or get left behind."

Trump didn't heed that warning, arguing in his Rose Garden speech of 1 June 2017 that by pulling out of the voluntary agreement, he was protecting American jobs and economic competitiveness. But Guterres is right: many businesses are already on board the sustainability train — or at least mapping a trip to the station — making Trump's rhetoric seem hopelessly outdated.

While the world is still dangerously behind schedule for reducing greenhouse gas emissions significantly enough to avoid severe climate-change impacts, many business sectors have made significant starts in the last few years, progressing from avoidance and delay to acceptance and action. As a signpost of hope on the route to a low-carbon economy, energy consumption is decoupling from economic growth. Since 2007, US energy consumption has fallen by 3.6% while the country's gross domestic product has grown by 12%, according to a February 2017 report from the Business Council for Sustainable Energy[2].

Many businesses understand the significance of that statistic. Since the US presidential election of November 2016, many corporations have signed open letters asking Trump to stay in the Paris Agreement and to keep Obama-era regulations on methane leakage and the Clean Power Plan. A group of 1,000 companies worth US$3.4 trillion, including Nike, Starbucks, REI, Dow Chemical, and Mars, signed a "Business backs low-carbon USA" letter[3]. After the Paris pull-out announcement, more than 900 businesses — among them Hewlett Packard, Ikea North America, The Gap, Nestlé US, Levi Strauss and Lego — joined a coalition of cities, states and universities, declaring to the world "We're still in"[4].

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The corporate world has come around to this viewpoint slowly, after many years of pressure from international institutions, NGOs, and faith-based communities and after witnessing the success of early leaders, such as US carpet-maker Interface. But the last couple of years have been a tipping point in which many companies have realized the risks are high — and so are the opportunities. Climate change is already causing companies visceral pain through supply-chain disruptions, property damage, and resource shortages. Superstorm Sandy caused more than US$70 billion in property and infrastructure damages. The California drought caused US$2.74 billion in agricultural losses in 2015 alone. The Paris Agreement itself, with 197 countries agreeing to act to restrict warming to 2 °C, sent "a really strong signal that this is an issue to take seriously in terms of how you drive your business", said Pedro Faria, technical director for the Carbon Disclosure Project (CDP), a UK-based organization focused on quantifying corporate emissions. And in the run-up to Paris, international meetings increasingly focused on encouraging progress by non-state actors, including business and industry. "This is really socializing the control", said Faria. Perhaps most significantly, financial institutions and investors are becoming increasingly vocal in calling on companies to face climate risk.

On the carrot side, businesses ready to change can seize myriad opportunities that come along with climate action: cutting emissions usually means efficiency improvements and cost savings. The costs of lower-carbon pathways, especially renewable energy, are dropping dramatically. And as with any major global disruption, new market opportunities abound. "The low-carbon economy is the growth market of the future", said Kevin Moss, global director of the business centre for the World Resources Institute, a US-based research organization.

Trump's reactionary path, in opposition to the rest of the world, isn't a plus, said Moss. "Companies want predictability so they can invest now. They want consistency so they don't have to do a different thing in

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each place, and they want a good reputation on the global stage."

But Trump isn't just living in a time warp with his outdated policies on climate and energy. Some sectors are lagging, and they are whispering in his ear. The cabinet he appointed is something of a who's who of the fossil-fuel industry, starting with Secretary of State Rex Tillerson and Environmental Protection Agency chief Scott Pruitt. To date, 38 Trump administration energy and environment staffers have ties to the fossil-fuel industry (https://dirtydeputies.org). Arguments by the coal and manufacturing industries seemed to hold particular sway in Trump's Paris announcement — that meeting its goals would cost manufacturers too much and rising energy prices would force them to move more jobs abroad. The Trump administration has also been extremely receptive to lobbying by the oil, gas, and auto industries: greenlighting the Keystone XL pipeline, moving forward on plans to open up public lands to fossil-fuel extraction, ordering a review of vehicle fuel-efficiency standards seen as a prelude to rolling them back, and removing the requirement that natural-gas developers report their methane emissions.

The US withdrawal will prop up sectors that have been climate laggards, said Cynthia Cummis, director of private sector climate mitigation for the World Resources Institute. "I think they also understand that the transition to a low-carbon economy is inevitable", she said, but can't see a way to be competitive. "So they're trying to figure out how to eek out profits for as long as they possibly can under the current system."

Disclosing financial risk

The risk that climate change poses to companies' bottom lines has been an increasing preoccupation of financial institutions and investors, who have long been pushing businesses to evaluate and report those risks — and to take action to mitigate them. Since 2011, the World Economic Forum's top 5 global risks[5], both in terms of likelihood and impact, have included climate change, water supply crises, extreme weather events, flooding, and failure of climate change mitigation and adaptation. "Current disclosure from companies doesn't give us as investors the tools that we need to understand the risk", said Aaron Ziulkowski, a chartered financial analyst for Walden Asset Management — an investment firm that specializes in sustainable, responsible, and impact investing.

This year has been a watershed moment for shareholder power. An early leader in this arena, Interfaith Center on Corporate Responsibility (ICCR), a coalition of values-driven investors, filed 104 resolutions addressing climate change in the 2017 proxy season. The majority focused on disclosure of risk and plans to adapt to the 2 °C warming limitation set out in Paris. But resolutions also included restricting lobbying to block climate policy and even appointing a climate scientist to ExxonMobil's board.

Most notably, after years of trying, ExxonMobil shareholders won a huge victory when 62% of them defied the board and voted for the company to report annually on how technology advances and global climate-change policies will affect its business. The success was made possible by large investors such as BlackRock, Vanguard, and Fidelity recognizing the wisdom in greater disclosure and deciding to support the resolution for the first time, said Ziulkowski.

Andrew Logan, director of the oil and gas program at Ceres, a US non-profit that works with institutional investors on sustainability issues, said, "We are witnessing a truly historic shift in shareholder support for these resolutions. When you have very conservative institutions like BlackRock and Vanguard taking these positions, you know the issue has changed in some fundamental way."

This year's result was particularly sweet for Dominican Sister Pat Daly and other faith-based investors, who have been pushing ExxonMobil to reckon with climate change for two decades. Daly is executive director emeritus of the Tri-State Coalition for Responsible Investment, comprised of 40 Catholic institutions, and itself a member of ICCR. Over the years she and her colleagues have gathered partners in their efforts: foundations, city and state pension funds, including the New York state pension fund, and the Church of England, which co-filed this year's resolution.

Despite ExxonMobil management's long resistance to shareholder initiatives; despite its history of funding climate deniers and manufacturing doubt; despite its knowledge of climate science dating back to the 1970s for which it's now being sued by investors for misleading them, the corporation appears to be changing its tune somewhat. CEO Darren Woods and manager of environmental policy & planning Peter Trelenberg penned letters to Trump emphasizing their support for the Paris agreement. And in June 2017, ExxonMobil signed on to a new policy initiative calling for a US$40 per tonne price on carbon, along with Shell, Johnson & Johnson, PepsiCo, General Motors and other multinational companies. About the policy initiative, Woods said in a statement, "We have been encouraged by the proposal put forth by the Climate Leadership Council as it aligns closely with our longstanding principles."

Conventional wisdom is sceptical that these moves are little more than greenwashing. Daly understands that viewpoint, having watched the company up close for a long time. She's not naïve, she said. "Are they leading the world in bringing us out of future climate disaster? No, I would never say that. What I'm saying is, I've seen this company come a significant way. There were years where they wouldn't disclose their greenhouse gas emissions. At least the disclosure is better."

Shareholders including Daly are also pushing for companies to disclose their donations to trade associations, which do a lot of lobbying on behalf of their members. The Competitive Enterprise Institute, a libertarian think-tank, and the American Energy Alliance, a fossil fuels trade association, were among the groups that swayed Trump to leave Paris. "Trade associations often represent a lowest common denominator position among the industry," said Zuilkowski. "Some are very anti-climate. When you peel back the layers, you realize those trade associations are representing a lot of companies who say climate change is happening and we need to be doing something about it." Companies risk damage to their reputations by funding trade associations that talk a very different line on climate, he said.

Other entities are also pressing for a clearer picture of risk assessment.

In June 2017, Carbon Tracker, a UK-based think-tank, and Principles for Responsible Investment, a UN-supported responsible investor network, released an analysis[6] of 69 global oil and gas companies' stranded assets — investments that would be abandoned if the world succeeds in limiting global temperature rise to 2 °C. The report concluded that the industry risks wasting US$2.3 trillion by 2025, roughly one-third of its planned investments.

Andrew Grant, senior analyst for Carbon Tracker and one of the report's authors, said it works backward from the International Energy Agency's 2016 World Energy Outlook's 450 scenario[7], which aims to limit carbon dioxide in the atmosphere to 450 ppm, offering a 50% change of keeping warming to 2 °C. In a constrained carbon world, oil demand would likely peak, perhaps as soon as the early 2020s, and decline gradually afterward, presumably keeping oil prices relatively low. Higher-cost oil projects — such as Canada's tar sands and deep-water drilling — would be

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uneconomic. "If you have a very high-cost project, then you're reliant on continued high oil prices to make that financially worthwhile and generate income returns for your shareholders", said Grant.

ExxonMobil is the most exposed oil major, in part a reflection of its vast size but also because up to 50% of its expenditures are going to high-cost projects. The report also found that 60% of gas projects in North America were at high risk of failing to deliver returns to shareholders.

Global markets took concerns about climate risk to the next level when chair of the international Financial Stability Board, Mark Carney, likened climate change to toxic mortgages in the 2008 global financial crash, in that it presents systemic risk to the entire financial system. He called for a task force that would standardize disclosure of climate risks and opportunities through the G20 leading economies.

In late June 2017, the Task Force on Climate-Related Financial Disclosures (TCFD), chaired by Michael Bloomberg, released its final recommendations. More than 100 companies, including the Bank of America, Deloitte Global, DuPont, JetBlue, Arup, and Royal Dutch Shell have publicly vowed to support the recommendations.

Although the recommendations are voluntary, they carry gravitas thanks to who gave input to the task force: again, major asset owners such as BlackRock, Vanguard, Fidelity, and T. Rowe Price. "You can make a connection between them being involved in this disclosure effort over the last year plus and the high votes on these types of shareholder resolutions this year", said Zuilkowski.

Bottom line energy prices

Companies whose businesses don't revolve around fossil fuels perhaps find it easier to see opportunity in climate change, particularly in advances in low-carbon technologies, such as electric vehicles, energy efficiency, and digital innovation in electricity management, said Grant. Dramatically dropping prices for renewable energy are especially compelling. By 2020, solar photovoltaic is projected to be cheaper than coal or natural gas throughout the world, according to the World Economic Forum.

These trends are a result of continual innovation in those industries and economies of scale facilitated by government policies worldwide. But now "companies can make a huge contribution to that by procuring renewable energy", said CDP's Faria.

The Climate Group is a UK-based non-profit that partners with CDP, and is challenging businesses to power themselves with 100% renewable energy. It already has 100 companies committed, including Microsoft, Gatwick Airport in London, BMW, Wells Fargo and H&M.

Aside from the sheen it casts upon their public image, renewable electricity costs are more stable than volatile fossil fuels. Tim Cook, CEO of Apple, made waves when he touted the company's power purchase agreement with a First Solar plant in Monterey, California. Ziulkowski paraphrased Cook's message: "We're paying less now. This is just good business sense." Apple's leadership has "been a really huge tipping point in the market," said Ziulkowski.

Big companies, such as Google, going to a renewable energy developer and saying, "'We'll buy the electricity for the next 20 years', that really helps make that project financially viable", said Faria. "That immediately gives a signal to the company that built the wind park, for example, that, OK, now we have a buyer. We know we have this cash flow. It's a lot easier to go and do the next projects."

Some companies are taking it even further. London-based Unilever, a multinational food and personal products company, has set itself a target to become carbon positive by 2030: in addition to sourcing 100% renewable energy for its operations, it will also support new renewable energy generation projects, sending the surplus to the grid.

Walking the walk

Still, many companies that have gotten serious about reducing their emissions have largely been flying blind. "There was no real consideration of what had to be done to achieve a world of 2 °C", said Faria. In 2014, CDP, the World Resources Institute, the World Wildlife Fund and the UN Global Compact decided to help guide them with an initiative called Science-Based Targets. It starts with the world's carbon budget to limit warming and calculates a particular company's share in that based on its reported current emissions. Using methodologies outlined in a *Nature Climate Change* paper[8], analysts with the initiative can evaluate whether a company's emissions reduction targets are on track, said Faria, who is also on the Science-Based Targets steering committee.

"This really resonated with many companies", he said. "They told us, 'We apply science in our business and that's part of our success. Why shouldn't we apply it when it comes to greenhouse gas emissions and climate ambition?'"

Dell, Colgate Palmolive, General Mills, and Marks & Spencer are among the more

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than 50 companies that have had targets approved. An additional 236 companies have made commitments to set science-based targets in the next two years. Walden analyst Ziulkowski said, "I've been most amazed by the fact that… companies from a variety of sectors are setting these goals. Walmart's commitment to reduce 1 gigatonne [1 billion tonnes] of emissions out of their entire value chain is jaw-dropping. That's the type of scale that we need to see to actually start to have a good chance of mitigating climate impact."

Perhaps one of the most important benefits companies reap from setting a science-based target, said Faria, is that planning how to achieve the long-term targets give companies an opportunity to rethink their technology base and even their business models. Consider a car manufacturer: in the drive to reduce its carbon intensity by more than 90%, it would also get an opportunity to think about how it is going to deal with other serious challenges, such as autonomous vehicles and car sharing.

Similarly, in our economic system businesses measure success based on perpetual growth, predicated upon resources that are not infinite. Business as usual is causing many other environmental problems in addition to climate change: water shortages and pollution, destruction of unique habitats, and the biodiversity they support. In rethinking how to conduct business from the ground up, businesses could innovate truly sustainable models — or at least ones that are degrees of magnitude better.

Industries that are particularly ripe for that kind of overhaul are the especially carbon-intensive: steel, cement, mining, fossil fuels and transportation. Together they emit more than one-quarter of global carbon dioxide. A report from Thomson Reuters[9] identified the "Global 100" companies with the most emissions with the notion that their stepping up could have an outsized impact on global efforts to reign in climate change. While such companies might be resistant to making such significant changes, they also typically have assets with a long lifespan, said Faria, so using science-based targets would help them to clearly understand the costs and benefits of action.

NRG Energy is a company that has seized the opportunity to turn its ship around. It builds power plants and delivers electricity to 3 million American customers. In 2009 it set a goal to become the leading green energy producer in the United States. Since then it has invested in wind, solar thermal, photovoltaic, and distributed solar facilities and has repowered some of its coal plants with natural gas. Setting a science-based target helped it to achieve its goals by thinking long term about its power generation assets, said Laurel Peacock, the company's senior sustainability manager in a case study report[10]: "We wouldn't be doing this if it didn't make business and economic sense. And by investing in renewables we can not only reduce our emissions but also future-proof the business."

History shows that it always takes a crisis to precipitate fundamental market and energy shifts. Climate change is a crisis of unprecedented scale because both the problem and our modern economy are global. In any shift there are visionary leaders who reap the benefits and those afraid of change who cling to the old world order. In pulling out of Paris, Trump and the industries who lobbied him made it clear they are the latter. ❐

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