Climate Politics in the Age of Trump: The Good, The Bad, and the Ugly

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Introduction

We find ourselves in a sharply contrasting situation today. Climate-change impacts are becoming increasingly evident and worrying. There are serious doubts about our ability to limit warming to no more than 2°C—or better yet, but more unlikely, 1.5°C—and some equally worrying shifts in climate policy south of the border. Yet there are also some very positive developments, including an accelerated shift to green energy technologies, which is opening new possibilities for stronger climate action.

So I will speak about "The Good, The Bad, and the Ugly" of climate politics today. I don't want to end with the most negative, I will start with the Bad and the Ugly first, before considering some more positive developments.

The Bad

We're in a very worrying situation. I don't see any point in sugar-coating that. The chances of not exceeding the internationally agreed target of 2°C of warming are not particularly good—at least not without a far more radical transformation of a growth-oriented consumer economy than the political mainstream has been willing to consider.[1] The remaining "carbon budget"—that is the CO_2 we can emit and still stay within the 2°C target—is small and

[1] An alternative scenario for meeting climate objectives would involve a radical drive for decarbonisation, including degrowth of the economies in wealthy nations, which would lead to major reductions in energy use (Anderson 2013; Anderson and Bows 2012); however, it has not been seriously considered in international discussions.

shrinking rapidly, causing observers to express concerns that the target may be out of reach (R. Meyer 2017; Tollefson 2015). One can find some fairly optimistic scenarios in the latest Inter-Governmental Panel on Climate Change report, but the unpleasant reality behind them is that they depend on still unproven technologies for removing carbon dioxide from the atmosphere—notably bioenergy plus carbon capture and storage—that could have their own serious social and ecological impacts (Hayden 2017; Tollefson 2015). The Paris accord did commit to keeping warming "well below" 2°C—and even made reference to a more ambitious 1.5°C target—but the commitments nations made under that accord would lead to an estimated 2.7°C of warming (Climate Action Tracker 2015), assuming they are actually fulfilled. The future we are on track for—without much more ambitious climate action—is one of more wildfires, more extreme storms, more mega-droughts and crop failures, the *risk* of more conflict, etc.

Already we have seen evidence of major impacts—at only about one degree of warming. The loss of low-lying urban areas to rising seas, such as Miami Beach, which has been experiencing increasingly frequent flooding, is no longer an extreme possibility, but more and more in the realm of likelihood (Bolstad 2017; Hauer, Evans, and Mishra 2016)—as is the loss of many of the great coral reefs (Hughes et al. 2017; PBS 2017). Recent research suggests that parts of the world, starting in the Middle East, may become uninhabitable as temperatures above 50 degrees become more and more frequent (Carrington 2015; Pal and Eltahir 2016)–exposing the human body to unbearable heat stress, especially the bodies of those not privileged enough to have access to air conditioning. Indeed it is the poor in the global South who are generally (although not exclusively) the most vulnerable to climate change—a double injustice given that they have generally done little to nothing to generate emissions that cause the problem. I will hold off on going further into the dystopian possibilities, but if you want to indulge your worst

fears, you can read the recent *New York* magazine piece entitled "the Uninhabitable Earth" (Wallace-Wells 2017), along with the response to it (e.g. Lynch 2017; Mooney 2017).

The Ugly

Into this situation we have added a president from the Republican Party, which, has almost entirely lost its moderate voices on climate at the national level, which were prominent a decade ago. (It may be a distant memory, but 2008 Republican presidential candidate John McCain promised to introduce a cap-and-trade system to address climate change.) The actions being taken today by President Trump with respect to climate are ones the world can ill afford given the need for strong and concerted action without further delay. These include: appointments of anti-environmentalists / climate denialists to lead key agencies, such as the Environmental Protection Agency and Department of Energy; an attempt to dismantle the Obama administration's Clean Power Plan; and a proposed budget with large funding cuts to the EPA and climate science and weather-related activities of NASA and NOAA (Bomberg 2017)—all of which fit into a larger agenda to "deconstruct the administrative state." Most notably, Trump opted to withdraw the US from the Paris climate accord. The danger is not only that the US is increasingly unlikely to meet the greenhouse gas reduction commitments it made at Paris. There is concern that other nations that are wavering in taking climate action may look at the US example as an excuse for their own inaction. Meanwhile reduction of US contributions to the global Green Climate Fund could damage efforts for emission reductions and adaption could in the poorer nations of the global South.

It is worth noting that one source of counter views on climate within the administration

has been Secretary of Defence James Mattis, who has acknowledged the need to address climate change and the security risks it entails (Revkin 2017)—as do many in the US security establishment.

The Good

Alongside all the reasons for great concern, there are a number of positive developments. The next steps toward the goal of near-zero emissions include decarbonizing electricity supply and shifting more activities (notably vehicle transport) to electric power. There has been important progress in these areas, with more certainly to come.

With regard to electricity, there have been dramatic reductions in the costs of renewable energy sources such as solar and wind, which are making up a growing proportion of new electric generating capacity, and in 2016 accounted for 55% of the new electricity generation capacity added globally (Timperley 2017). Renewable energy leaders such as Germany have in recent years helped to expand the market for renewable energy technologies through their supportive policies. Companies, including many based in China, have moved into that growing market, with new investments and greater scale that have brought costs down further. We are now at the point where, in many places with favourable sun and wind conditions, subsidies are no longer needed for renewables as they are increasingly the cheapest option for new electricity (Romm 2016).

Even more important than building new renewable sources is reducing and ultimately stopping the unabated burning of fossil fuels. There has been progress in this area, most notably with respect to the accelerating move away from coal. A powerful symbol of that is Britain, a nation whose industrial revolution was powered by coal. It recently went a day without burning coal at all for electricity—the first time since 1882—which is part of a rapid decline in coal

burning in Britain in the last few years, due to factors including EU anti-pollution rules and Britain's minimum carbon price (Vaughan 2017). We have an important example of our own in Canada, with Ontario's shutdown of its coal plants, which was completed in 2014—the most significant source of emissions reduction in this country to date. Alberta followed with its own plan to shut its coal plants by 2030—and the federal government also included an accelerated coal phase-out in its new national climate strategy. The International Energy Agency is predicting a dramatic decline in global investment in coal-powered electricity in the years ahead. One factor, among others, is that China's coal demand has peaked (Evans 2017).

Even in the US, where President Trump has talked of reviving coal as part of his agenda to make America great again, the consensus is that coal is not coming back to anything like its previous importance—for reasons including the abundance of low cost natural gas and the falling cost of renewables. An illustration of that is the decision by one of America's major railroads, CSX, to stop investing in new capacity to transport coal, as it is in terminal decline (G. Meyer 2017). A symbol of the direction of things to come was the decision by the Kentucky Coal Museum to invest in solar panels to cut costs—an initiative led by a former coal miner who turned to seeing renewable energy as part of the solution for his region's chronic economic challenges (Kaufman 2017).

The shift to electric vehicles (EVs) is also accelerating. As with the growth of renewables, there has been a mix of public policy, technological advances, and market forces at work. Policies to promote electric vehicle purchases in a number of countries have helped expand the EV market. Norway, for instance, has the most electric vehicles per capita in the world—which was encouraged by financial incentives to purchase EVs. In 2015, nearly 40% of its newly registered vehicles were electric (Hockenos 2017). Meanwhile China has emerged as

the largest EV market overall. A number of European countries have debated targets to end the sale of fossil-fuel powered vehicles—and France recently announced a ban by 2040 (Stothard 2017). Meanwhile India has set an ambitious goal of selling only electric vehicles by 2030—driven in part by the need to address urban air pollution and save money on oil imports (Brodie 2017; Sundria 2017). Companies are now starting to see the way the winds are blowing. Volvo announced recently that all its vehicles would be either electric or hybrid by 2019 (McGee 2017). Improvements in battery technology have contributed to the shift. Debate remains over how quickly the shift to EVs will occur and how quickly oil demand will fall as a result (Ward 2017), but the risks are growing for jurisdictions–like Canada–that have bet heavily on an economic strategy emphasizing oil and bitumen exports.

Within the US, many states and cities remain committed to GHG reductions and the spirit of the Paris accord despite the shift at the federal level. The most significant, among many examples, is California (the world's 6th largest economy). It recently recommitted to its cap-and-trade system until at least 2030. It has been a leader among US states in promoting renewable energy and is debating timeline for transition to 100% renewable electricity. It is also worth noting that some "red" Republican states have developed large renewable-energy sectors. There is a lot of wind blowing on the great plains of Texas, Iowa, and Kansas, and a lot of conservative farmers have been making money off it. That adds to the political voices in favour of continued support for renewable energy.

China's role has also shifted considerably in recent years. Although it remains the world's largest emitter, it has understood the political imperative of addressing the dangerous levels of air pollution that plague many of cities, which requires action to cut coal burning. It also sees the economic opportunities in the production of renewable energy technologies such as

solar PV and wind turbines. Indeed it has become the world's largest exporter of renewable technologies, and is also the largest domestic market for such technologies (alongside its still carbon-intensive economy). China's growing interest in renewable energy is also driven, in part, by energy-security concerns, as it seeks to limit its dependence on fossil-fuel imports and the vulnerabilities that brings.

Since Trump's election, there have also been ambitious new climate plans in France and Sweden, which have emerged as global climate leaders—the two top ranking countries in the most recent Climate Policy Performance Index (Burck, Marten, and Bals 2016). In France, Emmanuel Macron's new government has set more ambitious GHG reduction targets in its climate strategy, which includes a minimum carbon price of 100 euros (about C$150) by 2030 that is well above the levels currently discussed in Canada, a goal of "doing away with fossil fuels" by 2050, and the plan to move beyond fossil-fuel vehicles mentioned above (Robert 2017). Meanwhile, Sweden recently set a goal of zero GHG emissions by 2045, which is the range of ambition we need to be considering (if not even greater ambition). "Our target is to be an entirely fossil-fuel free welfare state," according to Sweden's climate minister (Doyle 2017).

Meanwhile, US isolation on climate was evident at the recent G20 meeting in Hamburg earlier this month. In the final declaration, 19 of the 20—including Russia and Saudi Arabia—called the Paris accord "irreversible" (Erlanger et al. 2017). So far at least, the fears that others will follow the US lead are not yet materializing.

The upshot of this selection of "good" developments is that, while having someone like Donald Trump (or Mike Pence, for that matter) in charge of the US may slow down global climate action at a time when it is necessary to accelerate it, there is a limit to the damage he can do given the strong momentum to move forward from a variety of sources.

Some Mixed Developments

I have spoken about the good, the bad, and the ugly. There are also some mixed developments to consider. Indeed, many of the developments already mentioned could be categorized this way, such as China's growing role as a renewable technology exporter and its peaking coal demand, which coincide with its continued status as the world's largest GHG emitter. Meanwhile, India continues to have plans for hundreds of new coal-fired power plants in the pipeline, which would jeopardize its Paris accord commitments (Shearer, Fofrich, and Davis 2017), but there has been a major slowdown in coal investment within the country, and increasingly competitive solar power—combined with growing awareness of the costs of air pollution—could very well mean that many of the planned coal plants are never built (Evans 2017).

Recent developments in Canada also include positive steps and important limitations. Alberta's NDP government has taken important steps in introducing a carbon tax and planning a shutdown of the province's coal plants, but GHG emissions in the province will continue to grow because of the rapidly growing emissions in the oilsands that the province's climate plan still allows. At the federal level, it is notable that the government has continued to move forward with its array of policies on climate change even with the election of a climate-denialist administration to the south. However, as a nation we have been very slow to act and have a long way to catch up, having experienced delay after under previous Liberal and Conservative governments. Above all, we are still a long way from making a break with a fossil-fuel centred economic strategy and beginning the concerted action for a transition beyond fossil fuels that is needed. Meanwhile here in Nova Scotia, we have seen relatively large percentage reductions in GHGs in recent years, resulting in part from positive policy steps to set renewable-energy targets and promote energy

efficiency. Nevertheless, the idea that we have done our part is very premature, given the province's still high per-capita emissions and continued high levels of dependence on coal for electricity.

Meanwhile global emissions may have peaked – they have been flat over the past three years. If it is indeed a peak, it is occurring at a much higher level than imagined when global climate negotiations began. Global emissions are now about 45 percent higher than in 1992 when the goal of "stabilization" at a level that would prevent "prevent dangerous anthropogenic interference with the climate system" was proclaimed at the Rio Earth Summit (Tollefson and Gilbert 2012). Nevertheless, reaching the peak is a key step—the next one being to start the sharp and rapid decline in emissions that is needed.

Going Forward

To conclude, I would like to make some comments on the political challenges and possibilities regarding climate and decarbonization. One major challenge is building, maintaining and expanding the political coalition that supports strong climate action. In countries that have been able to build up such coalitions, one key way of doing this has been by finding ways to link climate action to the core political imperatives of states.[2]

One of those is the economic imperative of ensuring a prosperous economy. There are certainly economic opportunities in the transition to a new energy system (not to mention risks for those who get left behind, stuck in the old high-carbon, fossil-fuel-centred economy). Finding those opportunities in renewables, electric vehicles, new battery storage technologies, and other related sectors—and thereby building up the numbers of businesses, workers, and communities

[2] For a more detailed discussion of the challenges of linking environmental goals to such imperatives, see Dryzek et al. (2003) and Hayden (2014).

that have a strong economic interest in the transition—is certainly one part of what's necessary, and possible. And there are also important economic co-benefits of climate action to seek out, such as savings on health care costs when fossil-fuel burning and air pollution are reduced.

Another key linkage is to the security imperative, including the issue of energy security, which has been a powerful motivator behind the development of domestic renewable energy to allow reductions of fossil-fuel imports in countries such as Germany and China among others. There is also growing awareness of the security risks from climate-induced conflict, which has the potential to expand the climate-action coalition beyond those in the green movement and on the left of the political spectrum. (That said, there are dangers in particular framings of climate change as a security that focus on militarized responses.)

There is one other imperative that I believe ought to, and needs to, play a bigger role in climate politics: the legitimacy imperative. That is, the need for political leaders to maintain a sense of legitimacy of the wider social order, as well as their own rule. We need to work toward making strong climate action a core element of legitimacy—something that we feel that our governments simply must do if they are to maintain the right to govern. This needs to be rooted in our own belief in the need to support strong climate action because it is the right thing for us to do as Canadians and as responsible global citizens, even if we do not see any economic advantage from it, even if it means we have to leave some economically valuable assets in the ground, and even if there is no immediate security benefit. There are signs of such a sentiment of responsibility emerging in some nations that are somewhat more advanced on the issue, such as Germany and Norway, as argued by political theorist Robyn Eckersley (2016). Like others, I would argue we need to see breaking our dependence on burning fossil fuels as something akin to the campaigns to end slavery in the 19th century. It is both a moral imperative to do so if we

are to maintain our moral integrity and a practical imperative to avoid the catastrophic possibilities that are coming into view.

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