CANADA
AT A CLIMATE POLICY CROSSROADS: PETROSTATE OR ELECTROSTATE? A DDP UPDATE

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Canada is a complicated country, a federation where the federal and provincial governments have constitutionally distinct and strong powers, leading to joint custody over climate policy. The provinces have explicit powers over natural resources and energy production and processing, including electricity production and transmission, all of which are key to climate policy. The federal government, on the other hand, negotiates treaties, has broad taxation powers, controls interprovincial and international trade, and has ultimate "peace order and good government" powers. It is key to funding almost all large energy and transport infrastructure as well. This might indicate the federal government has overriding authority over climate policy, but this not the case. The provinces are not passive, and fight for their rights passionately within their constitutional authority. For example, a foundational court case was fought between the petroleum rich provinces and the federal government all the way to Canada's Supreme Court in 2021[1], where it was decided that while the federal government does have the power to impose policy to reduce greenhouse gas emissions, e.g., through carbon pricing, it does not have the power to control production of fossil fuels or any other resources. This ruling is core to understanding climate policy in Canada.

1 Greenhouse Gas Pollution Pricing Act, 2021 SCC 11

The siloed nature of climate policy governance in Canada is reflected in the division of powers amongst federal ministries as well. Environment and Climate Change Canada champions climate policy, Natural Resources Canada plays a mixed role of championing efficiency and both low and high GHG intense energy forms, Finance Canada holds ultimate control of any policies that affect government revenues and taxation powers, while a multitude of other ministries intersect with federal climate policies on transport, infrastructure and housing. Each of the provinces have mirror ministries for each of the federal ministries, but usually of a far less funded character but specializing in the needs and resources of the province in question. Finally, at the bottom of the pile are the municipalities, some with economies larger than some provinces, that are governed by provincial acts but whose infrastructure are co-paid by the federal, provincial and municipal governments. This fragmented structure means all but the simplest climate policies become a matter of national negotiation and usually politics.

Another defining feature is Canada's location next to the United States. While the country has a distinct political tradition descending from Great Britain, France and the First Nations, its economy is intimately tied into that of the much larger US. Canada's economy is 67% traded[2], and the US is its largest trading partner, which makes it difficult to pursue climate policy that causes the costs of GHG intense goods and services to deviate strongly from US equivalents without experiencing strong real and perceived competitiveness issues.

Of absolute importance, the provinces differ in their endowments of fossil fuels. In a seminal article, Mitrova and Corbeau[3] contrast the fundamental approaches to the clean energy transition of China and the European Union (EU) against those of the United States, Saudi Arabia, and Russia. The authors define China and the EU as "Electrostates" and the US, Saudi Arabia and Russia as "Petrostates". To be an *Electrostate* or *Petrostate* is more than just about the current primary and final energy mixes. It's about how a country approaches its endowment of fossil fuels and potential clean energies and how it strategizes, invests and incentivizes its firms and workforce looking towards the global transformation to clean energy and low GHG emissions more broadly. Petrostates see fossil fuel reserves as an untapped resource that they should hurry up and exploit before it's too late. They are reluctant to transform, invest in the clean energy transformation hesitantly and slow it where they can. Electrostates, on the other hand, use fossil fuels a short to medium term complement for electrification while investing aggressively to transform. Petrostates see the clean energy transition as an impediment to growth and well-being, Electrostates the opposite.

It can be argued that Canada is caught squarely and internally between the philosophical viewpoint of a Petrostate and an Electrostate, leading to schizophrenic incoherence in development and maintenance of provincial and federal climate policy. On the one hand we have our "electro-provinces": Québec, British Columbia (BC) and Manitoba. All three have majority hydropower systems, so carbon pricing does not immediately lead to electricity price increases, and they can attract industry seeking low GHG electricity. Québec and BC have long been the strongest supporters of climate policy in Canada across several federal administrations and were some of the earliest adopters of carbon pricing in the world. Québec joined the California lead Western Climate Initiative cap and trade system, and BC pioneered the first use of direct carbon price excise taxation outside Scandinavia. They both have large investments in wind and or solar (despite their relatively poor solar resource) and are moving fast to electrify the transport fleet and buildings of all sizes using zero emissions vehicle standards and subsidies for heat pumps and regulations to reduce building gas hookups. Québec, the province with the least fossil fuel extraction, can now be called the province most

2 https://ourworldindata.org/grapher/trade-as-share-of-gdp

3 "PetroStates and ElectroStates in a World Divided by Fossil Fuels and Clean Energy" https://nationalinterest.org/blog/energy-world/petrostates-and-electrostates-in-a-world-divided-by-fossil-fuels-and-clean-energy

committed to climate action across the economy, being the last province to maintain a form of consumer pricing.

The provinces of Alberta (AB) and Saskatchewan (SK), on the other hand, are mostly Petrostates, with large fossil fuel endowments that they view as key to their economic development and future prosperity. BC can be argued to also be an inconsistent "CoalState" based on its metallurgical coal exports from the Rockies to mainly Asia. Despite Alberta and Saskatchewan having the potential for high-quality wind and solar power, driven by strong oil and gas lobbying, North American right-wing politics and the social media sphere that reinforces it, they have enacted policies to slow and effectively stall low GHG investment of all kinds, and are pushing back against federal zero emissions vehicle mandates. Ontario (ON), by far the largest province by population and economic size, sits uneasily between them, with a large and potentially growable nuclear power industry but also a financial sector deeply invested in oil and gas, likely contributing to its historically inconsistent approach to climate policy. Manitoba and the four Atlantic provinces (New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador) also sit uneasily on the spectrum between electrostate and petrostate, with conflicting interests in both due to geography and resource endowments.

Canada's emissions have stabilized and are generally falling but progress is not in line with net-zero by mid-century and is sector and regionally dependent, reflecting the internal Petrostate and Electrostate tensions. Canada has a federal Net-Zero Emissions Accountability Act (C-12), to which the federal government is accountable through normal Westminster parliamentary processes and a required plan, progress report and compliance schedule, but there has been strong push back at the provincial level. For example, Saskatchewan now insists on refurbishing its coal plants, and Alberta has an put effective ban on wind and solar. Despite this, Canada's electricity generation has had a high penetration of renewable and low carbon energy (hydro and nuclear) for many decades, and overall emissions continue to decline in the sector due to increasing wind and solar renewables and fuel switching to lower emission intensive generation. Building and transport emissions are falling despite increasing demand with new technology adoption including heat pumps, hybrid drive trains and electric vehicles. Non-fossil fuel industry emissions have also slowly steadily declined; however, progress has recently been stagnating due to a lack of capital investment. The only sector that has seen a dramatic increase in the share of national emissions is the oil and gas sector, rising from 19% in 1990 to its highest level of 30% of national emissions in 2023. Emissions per capita are more than three times higher than the national average in the Petrostate provinces (AB and SK), while the leading Electrostate province of Québec is nearly half the national average.

A large part of Canadian politics regarding climate policy can therefore be characterized as the Electrostate regions wanting to robustly embrace the global low carbon energy transition, with another arguing that commercially ready, investable, and sufficiently low risk solutions are not yet available, and the transition costs still outweigh the economic and social benefits. These Petrostate advocates argue that Canada's short to mid-term prosperity is dependent on continued and expanding coal, crude oil and gas (as LNG) sales. The petrostate-electrostate collision it is a very useful concept for understanding Canada's often schizophrenic climate ambition and successively missed targets and rising emissions until very recently.

This long run tension has played out through successive federal and provincial governments and across the main political parties. Despite the public impression of the Liberals as climate policy friendly and the Conservatives as focussed on fossil fuel development, Brian Mulroney's government signed the UNFCCC in 1992. Chretien's Liberals helped save the oil sands from bankruptcy in the mid-1990s when oil prices were low, specifically with the 1996 Accelerated Capital Cost Allowance reform. Under Harper in 2008 there was almost a requirement that all new oil sands be built with CCS, with the

aborted "Turning the Corner" policy package. Under Justin Trudeau and his cabinet, Canada's hybrid general carbon levy and large final emitters carbon pricing system was enacted, as was the zero-emissions vehicle schedule (the *Electric Vehicle Availability Standard*), Clean Electricity Regulation and subsides for transport and building electrification. Paradoxically, Trudeau's government also attempted to placate Alberta by forcing through the TMX crude oil pipeline to the west coast, despite BC provincial, municipal and First Nation's opposition. This did not however prevent Trudeau's climate policies helping push the Conservatives fully into the Petrostate camp, leading to Pierre Poilievre's "Axe the (Carbon) Tax" campaign. After faring progressively worse through two elections, and under the intense pressure of falling popularity, the Trudeau government, to protect votes in a critical region, then exempted home fuel oil heating in the Atlantic provinces (New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador) from the carbon levy. Basic low-income home heating across Canada could have been subsidized another way and the carbon pricing signal preserved, e.g., through the income tax system, but this was not explored. This exemption effectively spelled the end to the general carbon levy under Mark Carney after the very dramatic and close election of early 2025.

So, we have arrived at the present, summer 2025, with the general carbon levy zeroed except the provincial equivalent in Québec (which is tied to California's cap and trade system), but the large final emitter carbon pricing system is still in place, partly because it has been identified as having the most impact[4] and least political costs. The zero-emissions vehicle standard is under political threat, the more so for Canada's auto industry being fully integrated with the US, e.g., the US federal government is removing its emissions standards, and Canada has matched US 100% tariffs on imports of inexpensive Chinese electric vehicles. The chaotic Trump tariff war shambles on, killing investment through uncertainty and sucking all political attention from the room. Carney's government is focussed on "nation building projects" which will likely involve some fossil fuel investments, but of what kind, we likely won't know until the fall budget in probably early November. More broadly, Carney's government has said nothing about where federal climate policy will go, leaving the public and investors guessing and frantically lobbying to protect their interests.

Rubbing a crystal ball in mid 2025, there are likely three ways this could go out past 2030 toward 2050, assuming the last decade of Chinese, EU and US developments continue, and the world keeps doggedly pursuing the goals of the Paris agreement despite current US resistance:

1) Petrostate rustbelt. Federal climate policy is deprioritized while any and all short to medium term exports of fossil fuels are emphasized. Climate policy ambition again falls to key Canadian Electroprovinces such as Québec and to a lesser extent British Columbia, Manitoba, Ontario and the Maritimes. The zero-emission vehicle mandate dies or is delayed to the far future. Building and industrial electrification is spotty and municipal. Weak progress on climate policy means that Canada mostly slides into the Petrostate camp by default, with some crude oil, LNG and coal growth, which raises the Canadian dollar, making other greener investments more expensive to make. While short term investment confidence is high, stranded assets start to emerge as global crude oil, metallurgical coal and LNG demand begins to slow in the early 2030s. Several parts of Canada face unsettled "rustbelt" politics. Québec, which maintained its climate policies, and watches Chinese and EU developments on climate continue apace, is again chafing at the bit for independence.

2) Canada takes the "Norway". While LNG, more oil sands, and some coal reserve replacement projects go ahead, they are done with best-in-class upstream production mitigation of fugitive methane and combustion controls. Aggressive electrification occurs where possible in the fossil

4 Canadian Climate Institute. (2024). Industrial carbon pricing the top driver of emissions reductions, new analysis shows. Canadian Climate Institute. https://climateinstitute.ca/news/industrial-carbon-pricing-the-top-driver-of-emissions-reductions-new-analysis-shows/

fuel extraction industry, and transport, buildings, and light and heavy industry more broadly. For example, Québec invests in green iron exports, which also helps Ontario decarbonize the steel sector.[5] Some of the world's first CCS projects are in Alberta in the oil sands, chemical production (jet fuel and chemical feedstocks) and cement sectors. There is, however, no long run plan for a fossil fuel phase out unless driven by market forces, and stranded assets and communities emerge in the 2030s and 2040s, dragging on Canada's growth and politics. Decarbonisation reaches 60-80% by mid-century, without an unclear path to Electrostate status, and growth is structurally slowly than China's. Investment confidence is good but not great, and Canada evolves as a mid-tier nation.

3) Canada finds its own way from Petrostate to Electrostate. It is unrealistic to assume it will make an immediate U-turn on fossil fuel production, but a working majority of necessary parties at the federal, provincial and sectoral levels recognize the need to eventually end the use of unabated fossil fuels.[6] There are multiple, multi-level federal, provincial, municipal, community and sector conversations on how to maximize benefits for all as the country decarbonizes, including a long term fossil fuel phase out. Some low upstream GHG intense fossil fuel investment occurs, perhaps in LNG targeted at Asian markets for chemical feedstocks and to support wind and solar electrification, and reinvestment and retirement of oil sands production is timed to meet demand as the global overall market falls, but there is a conscious transition to lower GHG intensity products.[7] A clear path to Electrostate status emerges, including for Alberta and Saskatchewan as key low GHG industrial nodes in North America, based on their high-quality wind, solar and CCS geology. In the longer term, stranded assets and impacts on communities are lower, investment confidence and growth are higher, and Canada emerges as a global net-zero development leader, having successfully navigated the transition.

The three articulated paths are narratives, stories if you will, but they are based on almost three decades of watching Canada and the globe evolve in the face of climate change and other pressures. Each are quite plausible, a matter of investment choices, preparation and directionality given over the next decade. Choosing an alternative path from the United States will be difficult, especially given Canada's economic interconnectedness with the US, but the need for this was already signalled in this year's tariff war with the current administration, which is bent on a full transformation of the US into a Petrostate. It will be up to Canadians to signal to their federal, provincial and municipal leaders which future they desire.

5 Algers, J., & Bataille, C. (2025). Strategic decarbonisation of the Canadian iron and steel industry. https://lucris.lub.lu.se/ws/portalfiles/portal/218312088/Algers_Bataille_2025_Strategic_decarbonisation_ENG_CLEAN.pdf

6 Bataille, C., Al Khourdajie, A., de Coninck, H., de Kleijne, K., Nilsson, L. J., Bashmakov, I., Davis, S. J., & Fennell, P. S. (2025). Defining 'abated' fossil fuel and industrial process emissions. Energy and Climate Change, 6, 100203. https://doi.org/10.1016/j.egycc.2025.100203 https://www.sciencedirect.com/science/article/pii/S2666278725000303?via%3Dihub

7 Bataille, C. (2022). Transition Pathways for Canada's Oil and Gas Sector (p. 14). Canadian Climate Institute. https://climateinstitute.ca/wp-content/uploads/2022/07/Transition-pathways-oil-and-gas-sector.pdf