12 Pipelines Across North America

Previously Published Works by the Author

Co-editor with Rein Peterson, *Understanding Entrepreneurship*, Dubuque IA: Kendall/Hunt Publishing, 1988.

Financing the Gap: Small Capital and State Economic Development in Canada, 1943-2005, Toronto and Copenhagen: The Copenhagen Institute, 2007.

The Global Geopolitics of Energy: 2014-2018, Newcastle upon Tyne: Cambridge Publishing, 2019.

Selecting Rationality: public opinion, polling, civic engagement and campaigning, Toronto: Optimum Publishing Intl., 2019.

12 Pipelines Across North America:

The Politics of the State, Contention, Legitimacy and Competence

By

Kimble F. Ainslie

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PREFACE

This book is about oil and gas pipelines across North America. Specifically, it is about how they succeed or fail politically; politics being the central issue. To explore the contours of success and failure I mine issues related to actors taking actions on pipelines. I am mainly concerned with actors like states and groups in contention and conflict but also with actors that carry out acts of legitimacy or fail to do so and similarly actors that carry out key tasks or fail to do so. The actions of states, groups, and those involved with contention, as well as legitimacy and competence are in several important respects quite integrated and have influence on each other, and thus I am drawn to their actions. There are also two aspects of legitimacy and competence that become quite salient: de-legitimation and incompetence. These two features are seemingly ubiquitous in our pipeline cases and go a long way toward explaining why pipelines are so difficult to complete. These and a dozen other features make the story of oil and gas pipelines in North America intriguing accounts for observers to take in.

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I also wish to acknowledge the profound influence of James C. Scott on my thinking about the state. Like many, I was first drawn to Scott's *Seeing Like a State* (1998). I found his unconventional views on state structure more than a little compelling. Next on the list was *The Art of Not Being Governed* (2009). This work enthralled me by revealing the persistent power of peasants in the hill country of SE Asia. I was hooked. Next followed *Domination and the Arts of Resistance* (1990) and most recently *Against the Grain: A Deep History of the Earliest States* (2017). Apart from simply acknowledging micro and meso efforts at state-building and power, Scott turns what we think we know about the state, starting with Weber and Westphalia, on its head. Little from conventional state theorists is so enlivening.

My most intimate source of support came from my sister, Jeanette, who as usual provided sterling copy-editing services throughout. Always at the ready is my friend George Ramos who otherwise provides excellent teaching services at the University of Western Ontario, and Fanshawe College in London ON. In my case, his excellence is worked through his marvellous editorial and indexing services. Finally, for the third time, Sue Morecroft in the UK furnished superb proofreading services for the manuscripts I have sent her. A humble thanks to all.

A Note on Language

The style of English used for this monograph is typically known as Canadian English; roughly approximating language contained in the Oxford Canadian Dictionary. For Canadians, it is quickly recognized by its hybrid nature, a combination of the King's English and what is known elsewhere as American English. As far as spelling goes Canadianists prefer the spelling of "program, recognize and the noun practice" as the normal form, whereas we also prefer "colour, levelled, centre and the verb practise" spelled thusly. There are a host of other differences compared to American and British practice, but this thumbnail sketch gives non-Canadian readers the gist of things.

CHAPTER 1

INTRODUCTION

Introduction

This book concerns state assertiveness and political contention, as well as the political legitimacy and competence exercised over the oil and gas pipelines in North America-twelve to be precise. The role of the state is central in my cases; states, for our purposes, are the collection of governing entities surrounding what we know as the American government and Canadian government and beyond. I shall also review the role of groups affecting pipelines and how they tend to block these lines. States and groups are the main contextual factors in my assessment; they tend to shape most of what flows thereafter in term of contention, legitimacy and competence issues. It should be recognized that legitimacy and competence do not dwell in hived-off settings; there is considerable interaction between the two, although mainly we shall find that competence or the lack of it has determinative effects for legitimacy. The state competes with interest groups in society; however, as I note early on interest groups take on a lesser role. Illegitimacy and incompetence also figure large in my assessments; indeed, they are ever-present in my cases of pipelines. Rounding out the fourth corner of our analytic square is contention i.e. the conflicts that regularly crop up in pipeline development, which are sometimes passive, and sometimes very aggressive and violent. All of these elements form their own brand of politics and exercises in power; power being the glue that holds my analysis together.

Power is the basis of politics–notwithstanding Oxonian meanderings on the subject. Power is basically social and relational. When A controls B or C we have the essentials of power. Occasionally, political scientists include influence in place of control.

I will focus on four concrete sets of actors in this review: the proponents of pipelines (and their suppliers), state actors (and attendant regulatory agencies), interest groups (here, I am mainly referring to environmental lobbies), and finally indigenous groups, primarily their leadership. There is a fifth element that should never be dismissed when it

comes to oil and gas pipelines or public policy in general for that matter and that is public opinion, observed through public opinion polls–the great leveller in political and public policy discussions and actions.

Taken together, these actors and public opinion provide a useful window into the success, failure or otherwise of the pipelines under consideration. As such, the actors and public opinion offer guideposts to an evaluative framework for success or failure, or something in-between. I have used a variation of this framework before in my 2007 publication *Financing the Gap: Small Capital and State Economic Development in Canada, 1943-2005*. In that setting I first outlined the iteration of the macro concept of "state capacity" which included the constituent parts: legitimacy and competence. State capacity in this context was used to evaluate the development of Canadian, state, small capital; actually, the development of state venture capital supply, over the period from World War II to just after the turn of the twenty-first century. From this iteration, I have broadened the reach of the evaluation to include non-state actors i.e. pipeline project proponents and their supply "allies"–occasionally supply allies that are not very allied–plus the influence of environmental groups, indigenous groups and, of course, public opinion. Much more emphasis in this version is on the basic building blocks of "political capacity" instead of state capacity, mainly because I am drawn to the effects of so-called private sector actors, such as pipeline managers, environmentalists and indigenous folks acting in distinctly *political,* sometimes *partisan* ways. So, beginning with political capacity at the top of our modest hierarchy, I am focused on the politics of achieving results i.e. with people who have know-how and the appeal of their constituents in an atmosphere where the daily bread is power and conflict. Know-how or competence and constituent appeal or legitimacy are as I say the building blocks of capacity. Although legitimacy and competence go hand in hand, they are actually conceptually separate actions of actor viability.

Traditionally, legitimacy is thought of in terms of procedural legitimacy or substantive legitimacy: have you done the thing right and have you done the right thing? Doing the thing right typically involves some sort of constituency representation; are you representing your people adequately correctly, and with the right scope? This involves "consultation" made famous by our Indigenous brethren; for the rest of us it involves obtaining political support primarily from the relevant group's own constituents, perhaps members. It is the search for a "social contract" on the matter, a *quid pro quo*, or agreement from supporters or even the public at large in return for a provision of service or delegated act of client responsibility. Doing the right thing, as it suggests, is having the wisdom, smarts, or

experience to choose a course of action, policy or program that correctly represents the group's mission, goals, or reason for being; it reflects the group's first purposes, and it is undertaken by the most astute and experienced among the group's leadership. With substantive legitimacy it is the quality of the decision at hand that is important, i.e. the content of the decision or stratagem that matters.

Competence is the second dimension of political capacity; it is the immediate follow-up because it is crucial to its partner legitimacy; indeed, occasionally it is used as a stand-in for legitimacy when knowing how a decision should proceed is the same thing as having the wisdom to pursue it or having support for it. Competence in government as Robert Putnam suggests is "achieving purposes, not just for just achieving agreement." "We want governments to do things, not just decide things. … All but the anarchists among us … agree that at least some of the time on at least some issues, action is required of government institutions."[1] It is no different for outside groups wanting to effect change; action is the fundamental purpose. And action means undertaking and executing tasks that are typically relevant to the group in political context; it means the engagement and management of singular or multiple tasks that meet the group's purposes. And this requires the knowledge and expertise to execute tasks, policies or stratagems with finesse and professionalism, absenting bumbling ineptitude and organizational weakness. Happily, we often know displays of competence when we see them; they become self-evident; we feel them in the ways that events or actions unfold because they unfold in some order, by some logic, and by some intention, not in a haphazard fashion, but with discipline and direction. Ultimately, we choose legitimacy and competence because they are so foundational to the capacity for achieving things.

As it turns out my foregoing description of legitimacy and competence is a little more complicated when it comes to pipeline development. The following series of interrogatives pose the dilemmas. For example, when is interest group opposition reflecting negative assessments of pipelines constructive and therefore legitimate? Is the constant haranguing or implacable opposition toward pipelines still within the realm of legitimate opposition? Can small groups of interests with limited resources actually proffer competence? Can interest groups that bring in outside law firms to do their bidding still retain a representative quality for the constituents? When does the constant resort to lawsuits and filling up court dockets become an incompetent use of the process, notwithstanding the expertise at hand? Are "leave it in the ground" opposition strategies

[1] Robert D. Putnam, *Making Democracy Work: Civic Traditions in Modern Italy*, Princeton: Princeton University Press, 1993, 8-9.

sufficiently legitimate, or so facile to be regarded as the solutions of simpletons? When does government recalcitrance to act on pipeline development eventually become illegitimate? When does public opinion heading in one direction and constituent preferences heading in the opposite direction become a fundamental contradiction? Does public opinion–usually diffuse–supersede constituents' specific preferences, or should their preferences carry the day? When does throwing the doors open to all and sundry by regulatory agencies, leading to years of hearings, actually discredit the agencies' standing as a legitimate arbiter? When do repeated rounds of agency approvals only to be overturned by governing executives become "shambolic" exercises of power? Should we satisfy ourselves with a narrow-gauge consideration that what's good for the pipelines ought to be the only issue, or should much broader public questions take precedence? Indeed, should high court decisions be the final arbiter when deciding what is right and representative? These questions and more make judgments as to the legitimacy and competence of actors much more difficult to ascertain.

The major contextual factor present in my discussion is the role of the state. As we note in chapter two, the state is not always foremost in mind for those analyzing pipeline development. In fact, I reveal five examples of works that emphasize interest groups over the state in the consideration of influence for pipeline development. So, if you will, mine is the "minority" position when I emphasize the state's role, but it should not be. The state should be central. Why? Because it is the central coercive authority in society, even a democratic society. As Max Weber suggests:

> [a] state is a human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory. … The state is considered the sole source of the right to use violence. … [T]he state is a relation of men dominating men, a relation supported by means of legitimate (i.e. considered to be legitimate) violence.[2]

I do not pursue the concept of the state to the exclusion of all else; thus, the state does not rise to the level of fetishism. Moreover, I do not take umbrage with the observations of Joel Migdal in his work: *Strong Societies and Weak States*, referring to developing countries, as he notes that states have difficulties with their own capabilities; in a phrase, they do not always perform as advertised.

Migdal further asks:

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[2] Max Weber, "Politics as a Vocation," in Gerth and Mills, *From Max Weber*, New York: Oxford University Press, 1970 (originally 1946), 78.

> States have had unprecedented revenues at their disposal; they have built huge armies, police forces, and civil agencies. But with such resources, why have so many Third World states been so ineffective in accomplishing what their leaders and others had so eagerly expected of them, while a few others have done so much better in developing capabilities in social planning, policy and action?[3]

He summarizes his perspective with an appropriate little aphorism: "States are like big rocks thrown into small ponds: they make waves from end to end, but they rarely catch any fish."[4] So, state power yes, but not exclusively.

Let us delve further into the role of the state. First, putatively adopted at the Peace of Westphalia in 1648, "the fundamental norm of Westphalian sovereignty is that states exist in specific territories, within which domestic political authorities are the sole arbiter of legitimate behaviour."[5] The fundamental purpose of the state is the "safety of the people." The state alters a miserable situation for human beings by changing the conditions under which they pursue their interests.[6] Moreover, in early European liberalism, "the state exists to safeguard the rights and liberties of citizens who are ultimately the best judges of their own interests; and that accordingly the state must be restricted in scope and constrained in practice in order to ensure the maximum possible freedom of every citizen."[7]

Later, according to a 1997 World Development Report,

> The state [also] has much to do with whether countries adopt the institutional arrangements under which markets can flourish. Not only is the state the arbiter of rules; through its own economic activity it shapes the environment for business and the rest of the economy. For good or ill, the state sets the tone.[8]

The state sets forth the laws and regulations "that are part and parcel of a country's institutional environment." The Report says:

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[3] Joel S. Migdal, *Strong Societies and Weak States*, Princeton: Princeton University Press, 9.
[4] Ibid., 9.
[5] Stephen D. Krasner, *Sovereignty: Organized Hypocrisy*, Princeton: Princeton University Press, 1999, 20.
[6] David Held, *Political Theory and the Modern State*, Stanford: Stanford University Press, 1989, 17.
[7] Ibid., 22.
[8] World Development Report, *The State in a Changing World*, New York: Oxford University Press, 1997, 29.

> These formal rules, along with informal rules of the broader society, are the institutions that mediate human behaviour. But the state is not merely a referee, making and enforcing rules from the sidelines; it is also a player, indeed often a dominant player, in the economic game.[9]

Further,

> Good policies by themselves can improve results. But the benefits are magnified where institutional capability is also higher–where policies and programs are implemented more efficiently and where citizens and investors have greater certainty about government's future actions.[10]

Joel Migdal's discussion of the weakness of some states leads to our next important dimension of how the state works, "limited statehood." Limited statehood is a relatively new concept in political science and international relations, advanced by German-based, Thomas Risse and numerous colleagues.[11] Limited statehood is important because it tells us why states, even developed states, occasionally flounder, usually in the face of their own incompetence and lack of legitimacy–again we are talking about developed countries; undeveloped countries are an entirely different matter. Limited statehood in energy relations means the state steps back from performing crucial functions *qua* energy policy. It is widely thought that the restriction of statehood occurs on four levels: 1) "on a sectoral level (e.g. macro energy policy), 2) at a territorial level (federal, State or provincial) or only on some parts of a territory, 3) at a temporal level or only for a certain period of time, and 4) on a social level or only with regard to specific parts of a population."[12] From another point of view, as John Ikenberry notes, in *Reasons of State: Oil Politics and the Capacities of American Government,* "markets often act as important instruments of state capacity [otherwise known as the 'irony of state strength']. … [It is important to take cognizance of the] circumscribed character of state intervention in the [US] economy and society [to understand oil politics

[9] Ibid., 30
[10] Ibid., 33.
[11] Thomas Risse, *Governance Without A State?,* New York: Columbia University Press, 2011 (2013) and Tanya A. Borzel and Thomas Risse, *Effective Governance Under Anarchy: Institutions, Legitimacy and Social Trust in Areas of Limited Statehood,* Cambridge: Cambridge University Press, 2021.
[12] Abel Polese and Ruth Hanau Santini, "Limited Statehood and its Security Implications on the Fragmentation of Public Order in the Middle East and North Africa," *Small Wars and Insurgencies*, vol. 29, no. 3, 379.

going back to the 1970s]."[13] Limited statehood is also–whether Risse and his colleagues will admit it or not–very close to what in common parlance is known as a failed state.

In North America and other developed countries, territorial or policy parts of the state can slip into limited statehood under various conditions. For example, in a state as prominent as Texas, government action in support of or against the energy industry can be quite deliberately constrained. For instance, there is very little energy politics in Texas apart from the periodic bleating of environmentalists. Politics is highly consensual among apparently competing Republicans, Democrats, and elites in general. There is precious little contestation over big picture issues such as the advisability of fracking, climate change, or other ideological positionings. Even the Governor typically gets out of the way of the energy industry, lest he upset the apple cart of prosperity. And the (in)famous Railroad Commission of Texas, which ostensibly regulates the oil and gas industry, is loath to muck around too much in industry affairs: they leave that job, such as it is, to the Federal Energy Regulatory Commission.[14] There are other examples of limited statehood in succeeding chapters.

Beyond the straightforward role of the state, there is a dimension of state association/business relations, i.e. we can itemize roles that that state takes in combination with outside groups such as environmental associations or business corporations. These relations typically fall along a continuum of pluralist to state-induced relations and state-managed relations; for example, pressure group relations, where groups assert a position toward the state *qua* executives or legislatures or bureaucracies and the state responds or does not as it sees fit. Moreover, there can be a clientelist relation or a relation of cooptation, where there is a *quid pro quo* that binds both parties or a circumstance where an outside group allows its interests to be subordinated to state pressures. Or perhaps even a corporatist relation can exist, where more institutionalized connections between groups and the state dominate the scene.

The final feature of the foregoing evaluation framework is "contentious politics." I regard "contentious politics" as important because it is essentially about political conflict and obviously that is important for most pipeline politics. It is also important because two of political science's leading lights Charles Tilly and Sidney Tarrow have led the debate for

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[13] G. John Ikenberry, *Reasons of State: Oil Politics and the Capacities of American Government*, Ithaca: Cornell University Press, 1988, x.

[14] Kimble Ainslie, "Texas: The Centre of the Earth for Unconventional Oil and Gas," in *The Geopolitics of Energy, 2014-2018,* Newcastle upon Tyne: Cambridge Publishing, 2019, 219.

decades. For them, contentious politics emerges out of the "social mobilization" school of thought. In contentious politics, according to Tilly and Tarrow,

> … actors make claims on authorities, use public performances to do so, draw on inherited forms of collective action (repertoires) and invent new ones, forge alliances with influential members of their respective polities, take advantage of existing political regime opportunities, make new ones, and use a combination of institutional and extra-institutional routines to advance their claims.[15]

I regard contentious politics as simply another way of acknowledging that "politics" is being discussed at the meso level (middle range theory) i.e. mainly about interest groups. I fear that Tilly and Tarrow have succumbed to a blizzard of conceptual references with their approach, not unlike the predisposition of international relations theorists who engage all categories all the time! However, there are some interesting nuggets beyond the basic references to interest group conflict management. The authors introduce the idea of "claims making" and claims makers. This is a useful category which involves petitioning governments, making demands in street protests, presenting representations in meetings with state agencies, and a host of other efforts to seek reactions from governments and their regulatory agencies. Beyond evaluating claims by groups in pipeline development, I shall not be pursuing this much further, except to observe when contention is at a high tenor, a moderate/modest tenor or a low tenor. These levels of contention will be useful to evaluate the intensity of the conflict at hand, and explain the strength of resolve by interest groups.

A note on the organization of the text: the evaluation of the constituent parts, i.e. the discussion of legitimacy and competence will appear as the heart and soul of each case. This appears at the end of each case in part to summarize the politics of the case. Apart from state players, interior groups are usually referred to as "claims makers." The salience of state positionings and each "claim" on the process of pipeline developments will appear on a priority basis, from first to last, according to how influential they are in the pipeline's development, and frankly how important each actor is for legitimacy and competence.

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[15] Charles Tilly and Sidney Tarrow, *Contentious Politics*, 2nd Ed., New York: Oxford University Press, 2015, 7.

Why Study North American Pipelines; Do They Contribute to Climate Change; Are They Safe?

The study of pipelines is an adjunct to the study and indeed the practice of economic development, as pipelines contribute significantly to the expansion and prosperity of economies, or as Nobel Laureate Edmund Phelps describes it, "mass flourishing."[16] Mass flourishing is borne of "indigenous innovation" by the most creative minds in an economy. It is quite the opposite of the impulses toward, say, climate change, that seek to restrict innovation and to halt prosperity against all but the narrowest "scientific" rationales such as "leave it in the ground." Fossil fuels currently and for the foreseeable future offer the last bulwark against a life in cold root cellars; *fully 80% of North American energy consumption comes from hydrocarbons* (2022), according to the International Energy Agency. The gap with other fuel sources will not be soon be overcome.

Moreover, North American oil and gas are primarily transported by pipelines: indeed, there are 117,000 km of pipelines in Canada and 208,734 miles of pipelines in the US, according to the Canadian Energy Centre.[17] New York City-based, Madelon Finkel notes in her excellent monograph that in the US this "mileage" by pipelines amounts to "70% of crude oil and petroleum shipped," as compared to "23% oil shipments by tankers and barges over water;" "4% by truck," and "3% by rail."[18] For those inclined to suggest that inter-transferability between transportation modes is possible and indeed practised, these figures pretty much put the lie to that proposition. We study pipelines–in fact we use pipelines–because they are essentially the only game in town when it comes to petroleum transmission. It might also be noted that there is no other way to transport natural gas on land. (Of course, modern technology allows LNG (liquified natural gas) to be transported by sea.)

Why do we study oil and gas pipelines? North American oil and gas pipelines are thought to be good for international relations and trade. Canada and the US trade daily in oil and gas. Canada sent 3.2 million barrels per day through pipelines to the US in 2020, and similarly the US sent 324,410 b/d to Canada. In addition, Canada sent 7.4 billion cubic feet per day of natural gas through pipelines to the US and in turn the US sent

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[16] Edmund Phelps, *Mass Flourishing*, Princeton: Princeton University Press, 2013.
[17] Lennie Kaplan and Mark Milne, "Circling the Earth 11 Times: Key Facts about the Canada-US Energy Pipeline Network, Vast, interconnected pipeline network a critical cog in North America's energy security."
[18] Madelon L. Finkel, *Pipeline Politics: Assessing the Benefits and Harms of Energy Policy*," Santa Barbara: Praeger, 2018, 56.

2.7 bcf/d of natural gas to Canada. This is according to the Canadian Energy Centre with statistical back-up from Statistics Canada and the US Energy Information Administration.[19] Presumably, both countries are quite satisfied with their trade numbers in petroleum, although clearly Canada, at least Canadian business interests, would dearly love to amp up their exports.

Equally, both countries benefit from their pipeline transportation industries, economically. Again, the Canadian Energy Centre notes the industry in 2017 "added nearly $9.2 billion to Canada's GDP" and similarly the industry contributed "$50.5 billion to the American GDP in 2019." (All dollar amounts are in local currency.)[20] On the jobs front, the Canadian Energy Pipeline Association reported that 13,434 full-time equivalent positions were available and occupied in 2019 in the pipeline transportation industry, defined widely. And, in the US, as of May 2019, 49,970 were similarly employed in the industry. It should be noted that these jobs figures are usually disputed by progressives and the left–normally backed up by some left-wing, university "think tank" (advocacy center).[21]

I suppose we also study oil and gas pipelines because they are apparently so controversial. For example, they are a wonderful target for progressives to sustain their activities and of course for fund-raising purposes. Dozens of interest groups regularly manufacture their very existence around the undermining of pipelines so they can decouple them from their hydrocarbon sources, e.g. Canadian oil sands. They reason that if transportation companies are prevented from building pipelines, oil and gas extraction corporations will be unable to get their products to market; they will be forced "to leave it the ground," as the famous mantra goes. For example, an array of progressive and radical interests including the British Columbia New Democratic (socialist)-Green "coalition" government were able to shut down the enterprise interests of Kinder Morgan and its pipeline in Canada (British Columbia) the Trans Mountain Extension (TMX). That ploy didn't quite work out as the Government of Canada almost immediately bought the pipeline–even though they had blocked other pipelines at about the same time. On the other hand, associated state interests have continuously

[19] Kaplan and Milne, "Circling the Earth," 4/9.
[20] *Canadian Energy Centre*, March 30, 2021, 2/9.
https://www.canadianenergycentre.ca/circling-the-earth-11-times-key-facts-about-the-canada-us-energy-pipeline-network/#:~:text=Length%20of%20the%20Canada%2DUS,11%20times%20the%20earth's%20circumference. Accessed on December 20, 2022.
[21] Ibid.

impeded TMX, and the Government of Canada has barely lifted a finger to stop them–in a kind of "limited statehood" writ large.

Finally, we have the big enchilada of reasons to study pipelines, not for me, but for countless others and that is climate change. For progressives and the left, climate change trumps all other purposes for paying attention. In very short order, climate change has been raised to the level of religious observance. Daily, the news media repeat the liturgy, and advertise the "consensus" of apparently credible scientists granting absolution for adherents. Critics and skeptics are treated as the sinned and sinners, or if they write down their criticisms, they are excommunicated from respectable houses of worship, i.e. academic departments and newsrooms.[22] In terms of the practices of the liturgy, pipelines offend climate change practitioners in the most basic way because they enable satanic liquids to be transported overland to devil-worshipping consumers who drive cars, heat homes, wear synthetic and polyester garments and engage in a thousand other hydrocarbon uses. The key hit on pipelines is that oil pipelines facilitate the extraction of oil from source sites. If you undermine pipelines, it follows that the source sites will be undermined. Again, the primary target in North America–because it feeds so many pipelines across the continent–is the Athabasca (Alberta) oil sands or in the parlance of our left-wing radicals, "the tar sands" and its "dirty oil." The rationale for shutting down the oil sands is to foreclose the carbon emissions coming from this source site.

We acknowledge that carbon dioxide and methane emissions have risen in Alberta mainly because of the hydrocarbon sector; the increase has been 8.2% between 2005 and 2020–although Covid had a moderating influence in the last year of those counts; carbon emissions were down 8.2% in 2019-20.[23] Also buried in these data is a subtitled entry called "Fugitive Sources." "Since 2005, fugitive GHG emissions from fossil fuels production (coal, oil and natural gas) have actually decreased by 23 megatonnes."[24]

On the gas side of the equation, the primary culprit in an otherwise emissions neutral transmission system is the compressor station. These

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[22] A practising mathematician employed by a leading Canadian university once told me that his book criticizing the science on global warming caused him so much emotional upheaval from the opposition it generated that he refused to initiate any further contacts with the news media and most academics.

[23] "Greenhouse gas sources and sinks in Canada: executive summary," Government of Canada, 2022
https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gasemissions/sources-sinks-executive-summary-2022.html.
Accessed December 22, 2022.

[24] Ibid.

facilities compress the gas so it can be transported through the pipe. Depending on the size of pipe, compressor stations must be built every 40 to 100 miles along a pipeline route.[25] "Compression stations run 24/7. They are noisy and emit air pollutants … Leaks are common and these leaks include methane gas among other compounds."[26] So do pipelines directly or indirectly contribute to climate change? Yes, but only minimally or at most modestly, depending on how remotely one is seeking causation. To repeat myself from elsewhere, it is sort of like taking your grandfather to the hospital when your grandmother suffered the broken hip–remoteness and causation are so distant as to become untenable. On a final note, in contrast to the extremely negative assessments by the climate change lobby, the Canadian economy is making steady progress toward reduced emissions. For example, "… [on] emissions intensity, for the entire (Canadian) economy (GHG per GDP) intensity has declined by 39% since 1990 and 26% since 2005. The decline in intensity can be attributed to fuel switching, increases in efficiency, the modernization of industrial processes, and structural changes in the economy."[27]

In terms of a final note, it is always nice to be able to quote environmentalists back to their sainted selves, in this case environmental consultants. Drawing from my 2019 book *The Global Geopolitics of Energy 2014-2018*, I observed such consultants reporting to the Ontario Energy Board (Canada) on greenhouse gas emissions resulting from the Energy East pipeline project–a project I don't actually review in this book. In its report, the OEB cited Navius Research, a Vancouver consulting boutique operation, as they trotted out the well-worn "well-to-tank" maxim, i.e. drilling well to automobile tank, "lifecycle" framework. This formulation in essence broadened their coverage of emissions to include all upstream (exploration and drilling) carbon production and downstream (retail) production. In doing so, they came up with the following surprising conclusions: pipelines and Energy East in particular, were 1) "likely to increase GHG emissions in some areas but reduce emissions in other areas; 2) pipelines typically do not produce emissions directly from fossil fuels but from the consumption of electricity. Therefore, pipelines can lead to 'indirect' emissions at the point of electricity generation. 3) While the Energy East project is likely to increase emissions from well-to-tank, the largest impact occurs from tank-to-wheels (final consumption by vehicles). 4) It should be noted that while Energy East is likely to increase global emissions (well-to-tank), the majority of these emissions occur outside

[25] Madelon Finkel, *Pipeline Politics*, 58.
[26] Ibid.
[27] "Greenhouse Gas Sources," Government of Canada, 2022.

Canada and *the pipeline has a negligible impact on Ontario's emissions*."[28] As I say, pipelines have a minimal to modest influence on climate change.

The safety of pipelines is much debated in North American policy circles. The key issue for oil pipelines is oil spills; and the key issue for gas pipelines is compressor stations. At the end of these debates, an honest assessment is summarized by our New York, public health expert, Madelon Finkel. She states:

> Although spills, leaks, ruptures, breaks, and explosions are an issue in the oil and gas industry, pipelines are *generally regarded as a safe way to transport fuel* (my emphasis). Overall, the number of pipeline spills, leaks and explosions are few given the huge pipeline network in the United States and globally. But when a pipeline does fail, the consequences can be catastrophic States with the most pipeline mileage (i.e. Texas, California and Louisiana) have the most incidents. … One of the major reasons [contributing to failures] is the *age of the pipeline* (my emphasis). More than half of the US pipeline network is over 50 years old.[29]

Notwithstanding the above qualifier, we must acknowledge that oil pipeline leaks and ruptures are increasing. Again, it is because of aging pipes due to material fatigue and corrosion. In the US, "since 2010 over 3300 incidents of crude oil leaks or ruptures have occurred on the tens of thousands of miles of pipelines crisscrossing the country, releasing nine million gallons of crude oil. Each year the number of significant incidents in the United States had ranged from 233 to 336; the cleanup costs in 2015 alone totaled $332 million, more than double the cost in 1996 ($160 million). Trend data show that there has been an increase in the number of 'significant pipeline incidents' between 2006 and 2015 (+26.8%). In 2016, there were 220 significant incidents reported, 3032 since 2016, including major spills in Alabama, Louisiana, Oklahoma, Pennsylvania and Texas."[30]

However, "in the grand scheme of things, pipelines are a comparatively safe way to transport fluids from source to market. It is probably impractical to expect zero leaks and spills to occur along the extensive pipeline network."[31] To paraphrase Winston Churchill's famous dictum: pipelines are the worst form of transmission, except for all the rest.

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[28] Taken from Kimble F. Ainslie, *The Geopolitics of Energy, 2014-2018*, Newcastle upon Tyne: Cambridge Publishing, 2019, 103.
[29] Madelon Finkel, *Pipeline Politics*, 74.
[30] Ibid., 62.
[31] Ibid., 75.

The Pipelines

I have selected six Canadian and six American pipelines for review (i.e. within the national boundaries of each country). Success or failure of these pipelines is defined at the most elemental level simply as to whether they have completed their construction goals and schedules or not; if not, they are regarded as failures or simply non-completions. Of course, some pipelines have not yet been completed and have not failed outright, either by design or through cumulative, perhaps unforeseen, circumstances and they are designated "partially successful." But the more important measure of success, described above is whether actors in support or actors in opposition to pipelines have achieved political legitimacy and performed competently in political arenas. To reiterate, legitimacy and competence will be judged by examining the behaviour of pipeline managers, state institutions, public interest groups, and where available public opinion reports.

The six Canadian and six American pipelines appear in succeeding chapters as proposals for new pipelines, pipeline reversals and pipeline refurbishments/replacements. Here, I describe these pipeline proposals/reversals/refurbishments, in brief, to allow the reader some early appreciation of where I shall take them in succeeding chapters of the book. The US Energy Information Administration in January 2022 accounted for 14 completed projects in 2021: "six projects were new pipelines, five projects were expansions of existing systems, two projects reversed the direction that the commodity flowed in a given pipeline, and one project was a change in the commodity carried by the pipeline."[32] The following selection of projects reflects what the US EIA found.

The Trans-Canada Pipeline (natural gas, pipeline completed, Canada, new pipeline)

One of the oldest pipelines in North America is the Trans-Canada Pipeline (TCP) built from 1956 to 1958–although the idea of transporting natural gas from Alberta to Quebec started around 1953. When built, it was the longest pipeline in the world. By any measure, the pipeline was a hard slog for politicians, bureaucrats and corporate proposers; it underwent numerous financial plans, more than one ownership group, a mix of American and Canadian corporate owners–finally Canadian–and it made political history by prompting probably the most contentious parliamentary row ever experienced in Canada in 1956–leading eventually to the downfall

[32] US EIA, "In 2021, 14 petroleum liquids pipeline projects were completed in the US," January 19, 2022.

of the federal Liberal Party in the 1957 general elections. Notwithstanding all the permutations and conflict, the final weld was completed on October 10, 1958 and gas started flowing from west to east on October 27, 1958.

The Keystone Mainline Pipeline (oil, pipeline completed, US, new pipeline)

While the Keystone XL pipeline, its more famous or notorious sister oil pipeline hogged all the headlines from 2010 to 2015, the Keystone Mainline pipeline was the first actual Keystone pipeline to traverse the Canadian-American border starting from Hardisty, Alberta. It crossed over Saskatchewan and most of Manitoba, then headed south to Steele City, Nebraska, and turned east to the oil terminal at Patoka, Illinois–effectively a "tank farm" (huge oil tanks located in a single site). The proposal was launched in 2005 and received National Energy Board (Canada) approval in 2007. Essentially, the Canadian portion of the proposal converted a gas pipeline to oil, so most of the infrastructure was in place for construction purposes. The American side was somewhat more complicated, requiring approval from the US State Department and other state agencies. Notwithstanding the regulatory complexities on both sides of the border, the pipeline was completed in the US Midwest in 2010. The Keystone Mainline further proceeded from Steele City NE through to Cushing, Oklahoma–phase 2 of the project–without much political notice. At about the same time, the raucous history of the Keystone XL pipeline began, which suffered numerous deaths and resurrections until it was finally laid to rest in January 2021. Meanwhile, again almost entirely unnoticed by the media and environmental lobbies, was the southern extension of the Keystone Mainline pipeline to the Gulf Coast, the original destination of Keystone XL. Trans Canada used the name Gulf Coast pipeline for this southern extension from Cushing, Oklahoma to Nederland, Texas to avoid the hornets' nest of contention around the KXL nomenclature. Thus, by proceeding with the Gulf Coast pipeline, the Keystone Mainline stretched from Alberta right through to the Gulf. Keystone Mainline obviated the need for Keystone XL. The series of pipelines was completed by 2022.

The Mackenzie Valley Pipelines (natural gas, pipeline not started, not completed, Canada)

Around 1968, the Government of Canada acknowledged oil and gas discoveries in the Western Arctic in the Mackenzie River Delta and to the west. The government set up the Task Force on Northern Oil, also in 1968, an inter-departmental group that among other things compiled a document called *Northern Pipeline Guidelines,* which unabashedly

promoted private sector development of oil and gas. Soon after, around 1970, energy companies were asked to assemble proposals. Two groups participated: the Canadian Arctic Gas Pipeline company, a group of 27 Canadian and American producers (including Exxon, Gulf, Shell and TransCanada) and Foothills Pipe Lines (comprised of Alberta Gas Trunk Line–now NOVA Chemical Corp. and Westcoast Transmission). The first proposal started in Prudhoe Bay AL, went east across the Northern Yukon to the Mackenzie Delta and then south to Northern Alberta. The second was shorter, going from the Mackenzie Delta south to Northern Alberta. Because of the machinations in the post-1972 minority government, the Liberals yielded to New Democratic Party (socialists) skepticism and the outright rejection of the Mackenzie Valley route. In response, the government found an activist lawyer from British Columba with an NDP party affiliation and set him up as the Commissioner of a federal Royal Commission in charge of reviewing the pipeline routes and just about everything else related to the sociology of pipelines and adjacent biological effects. The Commissioner reported in 1977 with an outright rejection of the Northern Yukon route and recommended a 10-year moratorium on the Mackenzie Valley route, i.e. until native land claims had been settled. The government effectively accepted the results; the die was cast and the Mackenzie Valley pipeline was scuppered. Efforts were made to revive the plan by various groups over the course of two decades, including an indigenous corporation; however, by December 2017 the final nail went in the coffin.

The Dakota Access Pipeline (oil, pipeline completed, US, new pipeline)

The Dakota Access pipeline traverses the distance between the Bakken oil fields of North Dakota and the state of Illinois. Almost from the beginning this pipeline raised the hackles of the Standing Rock Sioux tribe whose reservation straddles the centre of North and South Dakota. The line also goes under the Cheyenne River as well as Lake Oahe and the Missouri River. So, the potential for outright conflict was pretty high from the beginning. Of course, law suits flew fast and furious, the most important one being against the US Army Corps of Engineers for the usual crimes of insufficient consultation and failure to obtain permission to cross Indian lands. The environmental lobby also got into the mix by supporting their native brethren amongst other objectives. Both Presidents Obama and Trump added their two cents' worth by delaying and then expediting construction of the pipeline; Trump was last in line so he won. After some

three years of planning and much contention the pipeline was completed in April 2017 and began operations the next month.

The Northern Gateway Pipeline (oil, pipeline not completed, Canada)

Northern Gateway was doomed before it started as opposition groups lined up in anticipation and thereafter. Its regulatory processes, for there were many, lasted from the application date in 2010 through to its ignominious end in 2015. The pipeline was slated to carry oil, bitumen, from Edmonton Alberta to Kitimat, British Columbia, converging at the Douglas Channel. The Joint Review Panel, appointed by the national Minister of the Environment, took an excessively long time to hold hearings, accommodating every tin pot advocacy group it could find. Prominent among these were aboriginal groups acting on their ever-evolving powers allowed by the courts. Premier Clark of BC imposed "5 conditions" on energy development *qua* Northern Gateway; there were protests aplenty until finally the newly minted Liberal government of Justin Trudeau placed a moratorium on all ocean tanker traffic, while opining that he would not allow an oil pipeline to traverse the Great Bear Rainforest. The deed was done.

The Capline Pipeline (oil, pipeline completed, US, pipeline reversal)

The Capline pipeline saved the bacon of oil sand producers in Western Canada. Originally built in 1968 from Patoka IL to St. James, Louisiana, the crude oil pipeline reversed its flows for a second time, this time going from north to south in 2021. Canadian bitumen would be picked up at the Patoka tank farms and delivered to refineries in Louisiana. There was little contention involved with the reversal.

The Trans Mountain Pipeline (oil, pipeline, completed, Canada, pipeline expansion)

The Trans Mountain oil pipeline has had a long and storied history in Canada, and aside from the Trans-Canada pipeline, it is one of the most controversial pipelines ever built. The Trans Mountain pipeline stretches from Edmonton AB to the Port of Burnaby, BC, just outside Vancouver. The portion of the pipeline that concerns us is the Trans Mountain Extension, a parallel pipeline, almost tripling the capacity of the original. The original application for expansion was filed by the American firm Kinder Morgan in December 2013. Premier Christy Clark of BC launched her opposition to the project at the end of almost two years of hearings, stating that she was concerned about too much tanker traffic in the Vancouver area. In May 2016, the National Energy Board gave its approval

of the project but with dozens of conditions. The federal government insisted on more regulatory reviews; and protests against the pipeline grew. The New Democratic Party aligned with the Green Party formed a minority government in June 2017, and they opposed Trans Mountain as well. The writing was on the wall for Kinder Morgan; the company stopped spending money on the project in April 2018.

The next month, the Government of Canada purchased the Canadian assets for $4.5 billion. In August 2018, the Federal Court of Canada found that the Government of Canada had not consulted sufficiently with community groups about tanker traffic and was insufficiently concerned about the safety of "killer whales" in the region. The project suffered set-backs, languished, and even suffered the indignity of the Finance Minister refusing to put more money into pipeline construction. In the post-Covid period things finally relaxed; construction was completed in early 2024.

Line 3 (oil, pipeline completed, US, refurbishment)

On June 11, 2021, the *New York Times* ran a headline: "The Keystone XL Pipeline is Dead. Next Target: Line 3." Although this headline properly characterized the long struggle for a pipeline that had already been installed and seeking replacement, the headline did not properly characterize its final completion. Line 3 is one of the many pipelines that carry oil from Alberta, in this case from Hardisty, southeast of Edmonton to the tank farms at Superior, Wisconsin. As pipeline management went, a huge number of approvals were required, and environmentalists and native groups built up an equally huge head of steam in opposition–the most pressure being felt in the summer of 2021.

The permitting process began in 2015 in Minnesota. The short segments (14 and 13 miles) in Wisconsin and North Dakota were completed in May 2018 and December 2020. The proponent began construction of the 337-mile section in Minnesota in December 2020. The entire project was completed and opened on October 1, 2021.

Line 9/9b (oil, pipeline completed, Canada, pipeline reversal)

Line 9/9b was essentially a pipeline reversal going from Sarnia, Ontario to Montreal, Quebec. Most of the action centred around the National Energy Board and the hearings it conducted from 2012 to 2014–although it took until the end of 2015 for the proponent to satisfy the conditions of the Board and to begin the flow of oil. Most of the contention around the pipeline involved the Line 9b section from North Westover, Ontario, just west of Hamilton through to Montreal. So, the Greater Toronto Area (GTA)

was in the middle of most of the concern, although not exclusively. Indeed, this rather innocuous reversal of an existing pipeline attracted more than its due of protests, editorial opposition, and sometimes quite unreasonable and lengthy push-back. In the end, as expected, the reversal was approved by the NEB–how could it not be, since it was a crucial energy pipeline through Canada's industrial heartland.

One notable feature of the pipeline approval process, was a Canadian Supreme Court decision brought by a tiny native band from Southwestern Ontario. Our First Nation friends wanted to test the limits of "aboriginal consultation" and to test the representative authority of the NEB. In the decision, existing rules of consultation were sustained by the Court as well as the NEB's representative capacity as agent of the federal Crown. The case was dismissed–of course, all legal costs for the band were born by the Canadian taxpayer.

Line 5 (oil, approval of pipeline still pending as of December 2023, US, refurbishment)

Line 5 was built in 1953, as part of the original group of lines extending from Western Canada to the US heartland; thus, it has remained as an ageing but serviceable pipeline for these many years. The line runs from Superior, Wisconsin to Sarnia, Ontario. While up for refurbishment in the latter part of the 2010s, relatively out of the blue, a Midwestern Democratic gubernatorial candidate got it in her head that shutting down Line 5, because it crossed the Straits of Mackinac, was a good idea. Somewhat after her election to office in 2019, i.e. on November 13, 2020, the Governor attempted to shut down the pipeline. This case is stranger than most: it involved an unprovoked shutdown attempt by a state executive; it involved almost no outside groups except for very late in the game; it provoked an international incident involving the invocation of an international treaty, and it was in part supervised by a US federal judge who was not taking any nonsense from an untethered, ideologue in office. At no time was the flow of oil stopped, notwithstanding the Governor's efforts, and the case will likely be tied up in the US courts for years to come.

Another tiny Indian band registered a lawsuit against Line 5 in Wisconsin in 2019. Line 5 passes under the entire length of the band's reservation. A federal judge clearly came down on the side of the band which accused Line 5's ownership of trespass. However, the judge did not shut the pipeline down; rather, he stayed his decision but required the respondent to build the pipeline around the reserve within 5 years, commencing September 2022–an effort that the respondent had already

contemplated. While still operating, Line 5 has some significant future challenges–to say the least.

The Coastal GasLink Pipeline (natural gas, pipeline completed, Canada, new pipeline)

By the end of 2023 the Coastal GasLink pipeline (CGLP) had been completed; the line extends from Dawson Creek in northeast BC to Kitmat BC located on a long inlet to the Pacific Ocean. To say this gas pipeline has been a source of political contention is to put it mildly; however, to the credit of the proponent and unconventionally all elected indigenous groups along its route, they have withstood the very considerable onslaught.

Some notable features of its development from 2012 to 2023: CGLP prompted a national blockade of selected transportation routes by native radicals in early 2020 and only the arrival of Covid foreclosed their efforts; numerous injunctions have been defied by outlaw native groups in the years 2019, 2020, 2021; unlike the mostly tepid police enforcement in Ontario, the BC RCMP has taken surprisingly strong actions in dismantling blockades along logging roads deep in the forest where the pipeline is sited; there was extreme violence committed in the construction camps near Houston BC in 2021; there has been near complete inattention by the news media to the official support of all indigenous band councils–let me repeat, *all indigenous band councils along its path*–and there has been near exclusive attention by this same left wing media cabal to the protests of a tiny hereditary group of natives–without official status in the process. Notwithstanding the long history of conflict and obstruction, the pipeline was completed at the end of 2023.

The Permian Highway Pipeline (natural gas, pipeline completed, US, new pipeline)

The Permian Highway pipeline (PHP), carrying natural gas, is one of a series of pipelines desperately trying to get hydrocarbons out of the Permian Basin in Texas. The low supply of pipelines became a serious issue in the first quarter of 2018; a time when most of the majors were heavily into the fracking business in the Permian. Some three years later the supply problem has dissipated as the result of a major construction program. The route of the PHP begins in the far west of Texas in the Permian Basin and traverses pretty much a straight line to just short of Houston, which then has other pipelines carrying gas to Mexico and the Gulf Coast for LNG transmission to the world. The PHP stands out, not because it had much trouble with its planned schedule of development–it