Pipeline Politics: Capitalism, Extractivism, and Resistance in Canada

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ABSTRACT

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Economic and political pressures to extract Canada's oil sands—among the most carbon-intensive and polluting fossil fuels on the planet—have increased manifold, while heightened risks of toxic spills, climate change, and environmental degradation from fossil fuel use and production have solicited intense public concern. Yet, influenced by neoliberalism, political solutions to climate and environmental crises are often swept aside in favor of market-based approaches to economic and social organization. In the face of such depoliticizing trends, and an economic model that makes life on Earth increasingly precarious, a loose network of environmental organizations and citizens took social and political action against oil pipelines in response to the "failure of institutional representation" (Dufour et al., 2015: 127). This movement—dubbed the anti-fossil fuel or anti-pipeline movement (Klein, 2014)—sought to challenge the dominant cultures and politics of fossil-fueled capitalism to initiate a public conversation about building and governing differently in a socio-ecologically precarious world. For that reason, social resistance to a specific oil infrastructure project, the Energy East pipeline in Canada, presents an opportunity to unpack how political claims for a post-carbon society are enacted and formulated. Drawing primarily on reviews of the social science literature on risk, capitalism, and environmental politics, as well as discourse analysis and in-depth interviews with key anti-fossil fuel movement actors, the thesis aims to explore how anti-pipeline claims problematize capitalist solutions to contemporary environmental problems. It argues that social resistance to pipelines carves out a space in the public imaginary for a future beyond petroleum—and perhaps even modern capitalism itself.

KEYWORDS: tar sands, oil sands, pipelines, extractivism, resistance, political ecology, environmental politics, anti-fossil fuel movement.

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LIST OF ACRONYMS AND ABBREVIATIONS

AQLPA	*Association québécoise de lutte contre la pollution*
BAPE	*Bureau d'audiences publiques sur l'environnement*
CAPP	Canadian Association of Petroleum Producers
CBC	Canadian Broadcasting Corporation
CCM	*Communauté métropolitaine de Montréal*
CIBC	Canadian Imperial Bank of Commerce
CQDE	*Centre québécois du droit en environnement*
CSN	*Confédération des syndicats nationaux*
CSR	Corporate Social Responsibility
DFO	Department of Fisheries and Oceans
EIA	U.S. Energy Information Administration
ENGO	Environmental Non-Governmental Organization
FTQ	*Fédération des travailleurs et travailleuses du Québec*
IPCC	Intergovernmental Panel on Climate Change
MDDELCC	*Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques*
NEB	National Energy Board
NGO	Non-Governmental Organization
NIMBY	Not in my backyard
NOPE	Not on planet Earth
OECD	Organisation for Economic Co-operation and Development
PIPSC	The Professional Institute of the Public Service of Canada
PQ	*Parti Québécois*
RNCREQ	*Regroupement national des conseils régionaux de l'environnement du Québec*
RVHQ	*Regroupement vigilance hydrocarbures du Québec*
TCC	TransCanada Corporation
UN	United Nations
UNFCCC	United Nations Framework Convention of Climate Change

Chapter 1: With pipeline politics comes "people power[1]"

The unprecedented transformation of planet Earth and human society, both in terms of the industrial capacity to produce the material benefits of modernity and the damages to ecosystems and the climate these advancements have imparted, would not have occurred without the vast amounts of energy and heat-trapping gases unleashed by fossil fuels (Mitchell, 2011). As the benefits of modern consumer society are simultaneously mottled with risks of toxic oil spills, endocrine-disrupters, carcinogenic food additives, climate change, and biodiversity loss, the optimism of petroleum-powered modernity is, nonetheless, beginning to fade. Within this context, oil pipelines providing the infrastructure to drive petroleum supply–once considered harbingers of modernity and progress—are today increasingly controversial. While fifty years ago, the main hurdles to large-scale infrastructural projects were scientific and technical, today they are primarily social and/or political (McAdam et. al 2010). Spaces of resistance against oil pipelines around the world have become coupled with broader climate politics and a backlash against capitalist-driven environmental injustices (Klein, 2015). At the heart of these resistance movements is the recognition that humanity is faced with a difficult choice regarding how to balance the risks and benefits of fossil fuel production and consumption. This thesis is about the conflicting interpretations of how society, viewed through the lens of pipeline resistance activists in Quebec, should navigate those questions, where dimensions of power and culture increasingly intersect with questions of energy, economics, and the environment.

1.1 Oil pipeline expansion against environmental movements: Questions of governance

The political and economic push for more oil pipelines occurred against the backdrop of steep increases in North American petroleum production. From oil sands to shale oil, the extraction of petroleum is part of a global scramble for resources (Klare, 2012; Borras and Hall, 2012). While continued large-scale 'grabbing' of dirty oil continues to put intense pressure on land and water, it is also sparking new resistance struggles against fossil fuel extraction and transport (Veltmeyer and Bowles, 2014). Kenis and Lievens (2014) claim that the environmental movement has traditionally been different from other social movements because it lacks a clear actor group—everyone is affected to some degree by environmental degradation and climate change—and a defined object of concern, such as peace movements that coalesce around war.

[1] "People power" has become a common slogan in the anti-pipeline movement to refer to the power of citizen mobilization to stall fossil fuel projects and advance alternative environmental policies. For example, Greenpeace Canada director asserted that it has been instrumental in "preventing the expansion of the tar sands" (Stewart, 2015).

In contrast, with environmental movements against fossil fuels, pipelines have emerged as singular and concrete symbols of why and how continued dependence on oil is becoming so untenable. As the deleterious outcomes of systemic fossil fuel dependence and climate change become better known,[2] pipeline projects such as Keystone XL, Northern Gateway, Dakota Access, and Energy East have been under increased scrutiny in recent years.

In Canada, much of the controversy revolves around fossil fuel resources known alternatively as oil sands, tar sands or bitumen, and located in Alberta. The terms "oil sands" and "tar sands" themselves reflect different ideological orientations of support (pro-oil sands) and opposition (anti-tar sands) (Kidner, 2010, cited in Dorow and O'Shaughnessy, 2013: 125). The oil/tar sands reserves are located east of the Canadian Rockies beneath vast tracts of boreal forest in the traditional homeland of the Cree and Dene First Nations peoples. Bitumen extraction increased considerably when the U.S. Energy Information Administration reclassified oil sands reserves "from an estimated 4.9 billion barrels in 2002 to an amazing 180 billion barrels in 2003" because of higher oil prices and new technologies (U.S. Energy Information Administration, 2003, p. 40). With the new estimates, the Alberta Oil Sands became the world's largest commercial hydrocarbon[3] fuel deposits outside of Venezuela and Saudi Arabia (Alberta Energy, 2016).[4] Market confidence rose, money flooded into Alberta, and bitumen production increased from 1.13 million barrels per day (mmbd) in 2006 to 1.98 mmbd in 2013 (Canadian Energy Research Institute, 2014), with production estimated by Canada's federal energy regulator to grow to 4.8 mmbd in 2040 (National Energy Board, 2016b, p. 51).

Apart from the financial success of the Alberta Oil Sands between 2003 and 2014 aside, several scientific studies have established the localized adverse impacts of oil/tar sands extraction on ecosystem integrity, wildlife populations, and human health (Schindler, 2014; Timoney et al., 2009; Tenenbaum, 2009). In terms of global repercussions, research shows that fossil fuel extraction and production contribute to climate change and the deterioration of global ecosystems (McGlade and Ekins, 2015; IPCC, 2014; Swart and Weaver, 2012). The severity of

[2] See in particular the 2014 report of the Intergovernmental Panel on Climate Change (IPCC, 2014).
[3] For the purposes of this thesis, the term "hydrocarbon" refers to deposits of fossilized organic compounds whose molecules contain a "carbon backbone to which only hydrogen atoms are bonded" (Nelson and Cox, 2000, p. 56), and which are transformed into fossil fuel, as well as feedstock for the petrochemical industry.

[4] The National Energy Board estimates the volume of oil sands reserves between 166.3 billion barrels for "remaining established reserves" and 304 billion barrels for "remaining potential reserves" (p. 50). In contrast, Owen et al. (2010) point out that estimates from reporting agencies go as low as 4.9 billion barrels (p. 4744). But if the NEB's estimate of established reserves is correct, the figure would correspond to more than six times the total annual global oil demand in 2010 (Ibid).

such impacts on climate change and ecosystem integrity have pushed scientists to warn that the "human perturbations" of industrial development are destabilizing the "Earth system at the planetary scale" and compromising the maintenance of a "safe operating space" for humans on Earth (Steffen et al., 2015, p. 736). As the Intergovernmental Panel on Climate Change's (2014) synthesis report emphasizes, "recent anthropogenic emissions of greenhouse gases… have had widespread impacts on human and natural systems… The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen" (p. 2). As such changes intensify with each passing year, they underline the urgency of decreasing both aggregate planetary carbon emissions and fossil fuel extraction.

In light of these threats, climate and energy issues have surged to the top of the policy agenda. National governments present at the 2015 United Nations (UN) climate talks in Paris pledged to "reach global peaking of greenhouse gas emissions as soon as possible" (United Nations Framework Convention on Climate Change, 2015, p. 22). While the policy goal was widely, though cautiously, celebrated by environmentalists across the global North, the means of reaching that goal remain uncertain. Countries from the Global South obtained a victory when the official ceiling target of 2-degree Celsius global temperature change was lowered to 1.5 degrees; yet, policy researchers Roberts and Weikmans (2015) argue that the finance mechanisms to "reliably and transparently" (para. 2) fund transitions to a low-carbon economy in developing countries is too vague given the lack of definition of climate finance and uncertainty surrounding the operationalization of the Paris climate agreement (Roberts and Weikmans, 2015). Challenges exist around the carbon pricing schemes to achieve greenhouse gas reductions in the Global North, too. A report published by Climate Action Network Canada (2016) emphasized an unaddressed conflict between Canada's commitments under the Paris agreement and $3.3 billion in subsidies to fossil fuel companies.

The nebulousness of the Paris agreement is perhaps symptomatic of a larger systemic issue of climate policy inertia. Despite the plethora of knowledge about Earth's systemic deterioration and more than two decades of UN climate talks, neither the degradation of planetary biosystems nor the increasing volume of greenhouse gas emissions have been significantly reversed (Pereira, 2012). Moreover, concerted policy action to deal with the largest contributor to climate change carbon-intensive energy is largely absent. Recognizing this policy incoherence, sociologist Anthony Giddens (2008) noted that—although certain governments and private enterprises had taken some action to mitigate greenhouse gas emissions—no substantive international or national policy framework had emerged from the UNFCCC meetings which would otherwise guide governments in offering substantive responses (p. 3). Years after

Giddens' policy brief, global greenhouse gas emissions continue to rise (EPA, 2014). Scientists James Hansen and colleagues (2016) reported signs of glacier "ice melt, sea level rise and superstorms" (p. 3761), underlining that climate change is a "global emergency" (p. 3801) that requires a wide scale reduction in carbon dioxide emissions.

However, the issue of greenhouse gas emissions is only one dimension of the 'global emergency.' Parr (2013) writes that in addition to the scientific issue of how to keep atmospheric carbon concentrations below 350 parts per million (a limit endorsed by most climate scientists), there are other key dimensions of the problem of fossil-fueled climate change. These include the economic (how to decarbonize industrial production); the social (how to adapt to a changing climate); and the cultural (how to reign in consumerism) (p. 4). Yet, no matter which angle of analysis one adopts, the question of politics and agency is paramount. Who is responsible for the problem of fossil-fueled environmental changes? Is it the governments that regulate and legislate, or the corporations that drive production for profit, or the people who consume the products? Who decides which policies to pursue, and which institutions will encore those policies? In a very general sense, all social sectors are implicated. However, the specific nature of each party's responsibility differs from one sector to the next, and there is no singular power that has the authority to govern above everyone else. Political philosopher Lazzaroto (2002) reminds us that "[t]he fundamental political problem of modernity is not that of a single source of sovereign power, but that of a multitude of forces that act and react amongst each other…" (p. 12). In this complex and contested field of politics and economics, there is no one sovereign power that can command the necessary transformations of social structures and patterns that drive fossil-fueled environmental degradation.

Given that context, the concept of 'governance' become useful in sorting out the loci of change and responsibility in the face of emerging environmental crises. Jessop (2003) loosely defines governance as the "reflexive self-organization of independent actors involved in complex relations of reciprocal interdependence" (p. 101), contrasting it with the "'invisible hand' of uncoordinated market exchange based on the formally rational pursuit of self-interest by isolated market agents" (Ibid) and the "'iron fist' …[or] 'velvet glove'… of centralized, top-down imperative coordination in pursuit of substantive goals established from above" (Ibid). Hence, governance involves the coordination of politics, economics, and society by social actors through law, policy, and other agreements. Because it is the set of processes most responsible

for social control of fossil fuel(ed)[5] production, governance is a recurring theme throughout this thesis, and is an underlying object of contention of the movements that oppose oil sands expansion.

1.2 From global to local and back again: Pipeline resistance in Quebec

In response to the "global emergency" of climate change (Hansen et al., 2016, p. 3801) and the dearth of policy solutions and political will to address it, a growing chorus of civil society actors in Quebec has voiced the need to "*sortir le Québec du pétrole*" (translation: Get Quebec out of oil) (see Marcil, 2015). Such stances have been repeatedly met with industry commitments to "pipeline safety" and "environmental stewardship" (TransCanada, 2013), as well as government promises of "responsible resource development" (Natural Resources Canada, 2012a). Meanwhile, corporate pressure to build pipelines to export oil sands crude oil to international markets has intensified in recent years.

One major corporate player is the TransCanada Corporation (TCC). Marketing itself as a "leader in the responsible development and reliable operation of North American energy infrastructure," the TCC possessed assets valued at upwards of $64 billion in 2015 and was invested in more than ninety thousand kilometers of gas pipelines in addition to power generation and energy storage facilities in North America (TransCanada, 2016). The company branched out into liquids pipelines (i.e.: crude oil) in 2010 with the Keystone pipeline system that transports crude oil from Alberta—including bitumen—to the U.S. Gulf Coast for refining (Ibid). Parts of the Keystone system were built, although the last and most substantial phase of the project—the Keystone XL—was vetoed by US President Barack Obama in late 2015.

An important element in the plan to extract and export Alberta's bitumen reserves culminated in the development of the TransCanada Corporation's Energy East pipeline project, beginning in Hardisty, Alberta, and terminating at Irving Oil facilities on the Bay of Fundy in Saint John, New Brunswick. With a changing energy economy in North America, TCC sought to convert 3,000 kilometers of an under-utilized natural gas pipeline from the 1950s for crude oil transport, in addition to building 1,500 kilometers of new pipeline in Alberta, Quebec, and New Brunswick. TCC's Energy East project was to be the second pipeline to bring tar sands oil to Quebec, after

[5] Fossil fuel(ed) production is used throughout the thesis to connote not only the extraction and production of fossil fuels, but also that economic production in general is powered principally by carbon-intensive fossil fuels.

the Enbridge Corporation's Line 9 reversal project.[6] Midstream oil and gas companies involved in transport are somewhat insulated from price volatility because "they have long-term, fixed fee contracts with producers" (Shevory, 2015); an advantage that partially explains why North American pipeline companies continued to promote new pipeline projects in the face of very low oil prices after 2014.

When industry and the Canadian government began actively promoting oil sands pipeline projects, justifications came in the name of economic growth and better access to global markets. Such pipelines would provide markets for petroleum products from the extraction of oil/tar sands (or bitumen) which, along with shale oil, have led to dizzying gains in oil production in the U.S. and Canada. In addition to the most obvious factor of higher oil prices before 2014 (Grätz, 2012), chapter three makes the case that trends in neoliberal governance and other recent changes in the world system favored conditions for the increased extraction of unconventional oil; in other words, hydrocarbon fuel resources required a variety of elaborate and often polluting "enhanced recovery techniques" (Alvarado and Manrique, 2010). In the Alberta Oil Sands, such techniques vary from vast open-pit mines that stretch to the horizon to extract shallow bitumen deposits, to an intricate mosaic of access roads and drilling pads to access deeper resources through *in situ* techniques like steam-assisted gravity drainage. Along with such extraction techniques comes considerable water pollution and tailings ponds that cover areas larger than 130 square kilometers in some cases (Kelly et al., 2010).

In total, the Energy East pipeline is projected to deliver up to 1.1 million barrels a day of diluted bitumen and synthetic crude from the Alberta oil sands, as well as crude from shale oil deposits in North Dakota and Saskatchewan, to eastern refineries and oil ports (TransCanada Corporation, 2016). The federal government was to have final decision-making power over the inter-provincial pipeline, and the "construction, operation and abandonment" was to be regulated by the National Energy Board.[7] Most importantly, Energy East initially received "broader political support than its counterparts to the Pacific and Gulf Coasts," making the project seem like the most feasible option for proponents (Hoberg, 2013, p. 386).

[6] When completed in December 2015, Enbridge's Line 9 pipeline—which faced social resistance from many of the groups described in this thesis—began delivering up to three hundred thousand barrels of oil sands crude to Montreal, daily.

[7] The National Energy Board is the federal, independent regulator of the "construction, operation, and abandonment of pipelines that cross international borders or provincial boundaries," as well as aspects of fossil fuel import/exports and international power lines (2016d).

The political situation has changed significantly since Hoberg wrote the preceding words in 2013. Higher risks associated with oil sands extraction have sparked public anxiety and outright resistance, birthing new social movements against the production of oil that environmental groups have criticized as being "extreme."[8] By way of example, the proposed Energy East pipeline was originally slated for completion in 2018 though pushed back to 2020/2021 due to legal issues associated with the construction of an oil terminal in endangered beluga whale habitat in Quebec's Lower Saint-Lawrence region. Another instance of social resistance in combination with investigative journalism also played a role in delays. The review of the project by the National Energy Board (NEB)—a powerful administrative tribunal mandated with regulating, among others, inter-provincial pipelines (National Energy Board, 2016d)—was stalled indefinitely in September 2016 after public revelations of meetings between commissioners charged with reviewing the project and a TransCanada corporation lobbyist, former Quebec Premier Jean Charest (De Sousa, 2016). In response, protesters disrupted the NEB public hearing in Montreal, and Montreal mayor Denis Coderre denounced the lack of transparency of the review panel, leading to the recusal of all commissioners (Ibid). As of November 2016, no replacements had yet been announced by the Minister of Natural Resources, and the timeline of the review process was uncertain (Cromwell, 2016). Such instances demonstrate the intense controversies that pipeline projects have begun to solicit.

Opposition to Energy East and other oil sands pipelines intensified when dozens of First Nations chiefs and band council members from the U.S. and Canada signed the "Treaty Alliance against Tar Sands Expansion" in September 2016, vowing that "Indigenous Peoples are reasserting themselves as the legitimate governments and caretakers of their territories" by preventing "pipeline/train/tanker spill[s] from poisoning their water" and "stop[ping] the Tar Sands from increasing its output and becoming an even bigger obstacle to solving the climate crisis."[9] Furthermore, seventy-five municipalities along the projected route of Energy issued resolutions of opposition against the pipeline, and another fifty-five signaled serious concerns, according to the advocacy group Oil Change International (McKinnon et al., 2015). In an earlier report, the same group estimated that "public accountability campaigns" (p. 1) were slowing down oil sands development, estimating the cost to the oil industry at 17.1 billion dollars between 2010 and 2013 (Sanzillo et al., 2014).

[8] See the on-lone campaign http://www.stopextremeenergy.org, as well as the *Regroupement vigilance hydrocarbures du Quebec* discussed in later chapters.
[9] See the website at http://www.treatyalliance.org/.

In spite of such considerable social resistance, justification for the Energy East pipeline has been repeatedly anchored in the linking of nationalism with capitalist-driven modernity. The TCC's Chief Executive Officer, Russ Girling, compared the mega infrastructure project to such "bold ventures" as the Canadian Pacific Railroad in the 19th century (Krugel, 2013). Advertising for the pipeline is ubiquitous: from Google ads to Facebook, vaunting the benefits of oil and the lack of a viable fuel replacement, to the proliferation of digital advocacy groups with ties to the industry, including Canada's Energy Citizens,[10] the Energy East Action Network,[11] and Oil Respect.[12] The Energy East Action Network framed the pipeline as a means of "creating thousands of jobs and investments in local communities along the way and reducing our reliance on foreign oil" (TransCanada, 2015, para. 1), thereby insinuating that the project was in the public interest of Canadians, both economically and politically.

This conflation of economic and political power with public interests was echoed in the Canadian government's own discourse through Prime Minister Stephen Harper, who described pipelines as "nation-building" projects to create jobs, strengthen the economy and "make the country oil rich" (Cattaneo, 2012). In contrast, pipeline detractors claimed that Energy East would exacerbate "runaway climate change," drive "reckless tar sands expansion," or undermine "needed investments in a green energy future" (Council of Canadians, n.d.). To dispute such claims, the oil industry's marketing offensive was impressive. One of my research respondents complained that he couldn't even open his e-mail without seeing Google ads for the Energy East pipeline project. As one of TransCanada Corporation's advertising campaigns touted, "the more we know about oil, the more Energy East becomes a sensible choice" (e.g.: TransCanada, 2014b), revealing corporate attempts to embed pipelines as rational, efficient, and irresistible development projects in the national imaginary through marketing and public relations.

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[10] The website http://www.energycitizens.ca/ is a campaign led by an industry lobby group, the Canadian Association of Petroleum Producers.

[11] A website and social network maintained by TransCanada, see http://action.energyeastpipeline.com/. Notably, the creation of a "digital grassroots advocacy" campaign was a key feature of a public relations strategy document by the PR firm Edelman for their client, the TransCanada Corporation—a document that was leaked to Greenpeace in November 2014. See http://www.greenpeace.org/canada/en/recent/Leaked-documents-show-TransCanada-planning-dirty-tricks-campaign-to-support-Energy-East-pipeline/.

[12] See the Canadian Association of Oilwell Drilling Contractors on-line campaign at http://www.oilrespect.ca/.

Of central interest in this thesis is how oil sands infrastructure projects have become vulnerable targets to civil society actors promoting post-oil and post-carbon energy futures**.** This is what I mean by the phrase 'anti-pipeline politics', where oil and gas transport infrastructure becomes the specific object of social movements aiming to influence governance. Anthropologist Brian Larkin conceives of infrastructure as the "material forms that allow for the possibility of exchange over space… physical networks through which goods, ideas, waste, power, people, and finance are trafficked" (2013, p. 327). Infrastructure generates and safeguards vital social and economic functions that are often taken for granted by people, hence the scholarly claims surrounding the "invisibility of infrastructure" (Star, 1999). Although these seemingly invisible networks of pipelines and other infrastructures make modern, energy-intensive life possible, Barry argues that energy infrastructure is no longer the passive substrate for politics and everyday life it once was; instead, he argues that infrastructure has itself become an *object* of contentious politics. This occurs due to the rise in the unruly and unpredictable behavior of materials made obvious through intensified biological and physical processes such as climate change, biodiversity loss, and other ecological crises, all facilitated through infrastructure (2013, p. 2). The pipeline becomes a powerful cultural symbol representing the deterioration of the biosphere and the risks of petroleum-intensive development models, thereby motivating the formation of social movements to pressure for a "*sortie du pétrole*"—an exit from an oil-based economy.

With that said, resistance movements have not consisted exclusively of the usual suspects of environmental advocacy, i.e.: environmentalists and environmental nongovernmental organizations. As I will explore in depth in this thesis, many citizens who either live close to the proposed pipeline route, or who simply disagree with the pipeline, have engaged in general acts of resistance, including protest, organization of information sessions, participating in public consultations, social media activism, and writing op-eds for newspaper or blogs. The most active advocates of anti-pipeline stances grouped together in the umbrella network of 'citizen committees', the *Regroupement vigilance hydrocarbures Quebec* (see: www.rvhq.ca), and around the grassroots campaign *Coule pas chez nous* (see www.coulepascheznous.com). Though the latter networks comprised at most a few hundred active individuals, a broader anti-pipeline sentiment amongst the Quebec population came to surface when more than ten thousand people contributed almost half a million dollars to the fight against oil and gas projects in the province (see section 5.2.2). Furthermore, opinion poll research conducted by Abacus Data researchers (Anderson and Colletto, 2016) found that the province of Quebec exhibited by far the highest proportion of anti-pipeline sentiment amongst Canadian provinces; the study

showed that 51% of Quebeckers agreed with the statement that “Canada should not build new pipelines” (p. 2).

Many mayors across Canada have also taken position against oil sands pipelines. The mayors of Vancouver and surrounding urban municipalities stood together against the Kinder Morgan pipeline that would pump oil sands crude from Alberta to the Pacific Coast, citing “significant deficiencies in its public hearing and review process” (City of Vancouver, 2016). The mayor of Montreal Denis Coderre and eighty-two mayors of the Montreal Metropolitan Community (CCM) publicly opposed Energy East in January 2016, citing the results of a Fall 2015 public consultation where 90% of submitted briefs expressed opposition to the pipeline project. Coderre emphasized that the project carried “important risks for our environment and too few benefits for our economy” (quoting Coderre, De Souza and Mandel, 2016). The public opposition of Montreal area mayors occurred one year following my fieldwork phase, though it represented a culmination of the popular resistance that had been building for more than two years.

1.3.1 Anti-pipeline movements: Against the fossil economy logic

Ostensibly about a pipeline and its risks, the debate proved to be more complex. The Energy East pipeline project became marked by increasing controversy between 2014 and 2016 that was linked to broader frictions concerning the lack of social consensus on the most appropriate ways to deal with climate change and what to do about Canada’s massive bitumen reserves. Speaking to a group of people protesting the Kinder Morgan pipeline on Burnaby Mountain in British Columbia, environmentalist David Suzuki elicited some of those tensions, describing anti-pipeline activists' efforts as a

> battle… [against] the dominant worldview that sees this [land] not as sacred territory but as opportunity. And that's our problem! If we continue to look at the world and the land around us just in terms of dollars and cents, we're going to destroy the very things that make that land so precious, the very things that keep us alive and healthy (transcribed from VancouverObserver, 2014).

As anthropologist Mary Douglas wrote, “Every type of social conflict is about types of organization” (2007, p. 8). In terms of Energy East, and oil pipelines in general, the conflict seemed to stem from a desire by some for more sustainable and fairer social organization: recognition that the status quo of carbon-intensive energy systems produces social and ecological harm and inequalities. A columnist for the Montreal daily newspaper *Métro* wrote, “This pipeline is not just a pipe. There is a whole world that comes with it: an ideology, a vision

of the economy, a manner of colonizing lands and exploiting nature and human being[s]"[13] (Dubé, 2016, my translation). Beyond just opposing pipelines, the anti-fossil fuel and anti-pipeline movements challenged the prevailing forms of social and economic organization around energy-intensive production and consumption permitted by oil.

Naomi Klein's (2015) demarcation of the budding "anti-fossil fuel movement" is useful for understanding the activist networks emerging around Energy East. She describes these movements as pluralities of groups or individuals united in conflict against the underlying political and economic forces and logics driving continued fossil fuel expansion, many of them rooted in neoliberalism and colonialism. Similarly, sociologist Mario Diani (1992) defines social movements as "networks of informal interactions between a plurality of individuals, groups and/or organizations, engaged in political or cultural conflicts, based on shared collective identities" (p. 1). With that said, anti-pipeline politics are somewhat different from identity politics; membership is not defined so much in terms of an "individual's being" (Nicholson and Seidman, 1995, p. 21)—for example, by race, gender, or profession—but rather as a function of aspirations, hopes, and fears for the world and that world's future. Indeed, resistance against Energy East seemed more entangled in a shared desire of plural individuals to collectively construct an alternative, low-carbon world rather than remain entrenched in the current, unsustainable and fossil-fueled world. More than about sharing a common identity, struggles against the pipeline were about re-imagining a post-carbon future. I chose to focus on environmental and grassroots citizen groups, both in interviews and through participation in pipeline resistance, largely because they were among the first groups to publicly articulate anti-pipeline attitudes in Quebec. I wasn't certain that self-identification as 'environmentalist' or 'citizen' alone carried explanatory power regarding motivations for, or origins of, resistance, though I understood that these categories were useful to analyze aspects of the movement itself. To this end, Alain Badiou's analysis of the French Resistance is instructive. Badiou writes,

> No group, no class, no social configuration or mental objective was behind the Resistance... This results from the fact that a Resistance figure 'by logic' obeys an axiom, or an injunction, which he formulates in his own name, and whose major consequences he lays out, [to] rupture with dominant and circulating opinions" (2005, p. 5).

Badiou's resistance 'by logic,' where each political subject resists based on his or her own individual rationale, is relevant for the anti-fossil fuel movement. Far from a monolithic bloc of

[13] "Ce pipeline n'est pas qu'un tuyau. Il y a tout un monde qui vient avec: une idéologie, une vision de l'économie, une manière de coloniser les territoires et d'exploiter la nature et l'être humain."

equivalent class interests, I conceive of the anti-fossil fuel or anti-pipeline movement as a diverse network of individuals and groups who came together around their shared perspectives stemming from their respective, idiosyncratic justifications. Hence, the movement is not so easily categorized as, in the words of pro-oil, industry-affiliated group Canada's Energy Citizens (2016), a network of "anti-energy special interest groups." Fossil fuel resistance loosely converges not around monetary or class interests,[14] but an ecological and societal logic for a more equitable and sustainable world that I will unpack further throughout this thesis.

The environmental and social consequences of oil sands extraction are multiple, and in many ways, imply a re-visitation of "Durkheim's master problem" of "how social control is established over unruly human behavior" (Laidlaw, 2013, p.22). In other words, how internalized norms and external collective regulation shape human-environment interactions. Indeed, in an age when capitalist development models have led to the disruption of global ecosystems and the transgression of the limits of the Earth system (Foster, 2012; Rockstrom et al, 2009), what is to be done when current 'social control' encourages hyper-consumption, fossil fuel-powered production, and endless capitalist accumulation? Social movements that press for policy changes do so by shaming corporations for environmentally destructive practices and promoting cultures of sustainable consumption and production. Beck et al. (2013) define these groups as "communities of climate risk" for how they coagulate around a shared concern about threats such as environmental degradation, calling on social scientists to track how they "are being imagined and realized" (p.1). However, resistance against the material risks of the fossil economy and the pipelines that feed markets does not stop at writing policy papers. In some cases, more radical direct action was taken, including when three activists closed a manual shutoff valve of the oil sands pipeline Line 9 and then chained themselves to it in protest (Shields, 2015).

Risk was of central concern to the anti-pipeline movement, compelling responses ranging from the radical (e.g.: sabotage through the manual shut-down of an oil pipeline) to the moderate (e.g.: policy advocacy via the preparation of reports critical of oil sands pipelines). Common to such responses was a rejection of the fossil economy and its underpinning logic (whose effects are explored in more depth in chapter 2). For example, the #StopEnergyEast campaign of the grassroots advocacy organization the Council of Canadians emphasized that the Energy East pipeline—of which oil supply would be mostly for export—would entail "[o]ur

[14] That said, social class is a factor in resistance against resource extraction in many cases, see Martinez-Alier (2014) on "Environmentalism of the Poor."

risk, [and] their reward" (Council of Canadians, 2016). Anti-pipeline struggles framed risks of increased fossil fuel and greenhouse gas emissions and climate change as the primary symbols of their grievances with what Malm (2016) calls the "fossil economy"—or "an economy of self-sustaining growth predicated on the growing consumption of fossil fuels, and generating a sustained growth in emissions of carbon dioxide" (p.6). In that sense, social resistance against pipelines is not only about the very real risks of environmental impacts spurred by pipelines (e.g.: destruction of rare habitat, oil spill threats to drinking water, and catastrophic climate change); it is about contesting an economic system that is in direct conflict with the geophysical and biological functioning of the Earth (Hornborg, 2013, p. 41).

As the consequences of the fossil economy hit people and the planet harder each year, they redefine politics and the meaning of citizenship. Through growing public awareness of the links between oil and environmental risk, as well as new opportunities for public participation on the internet, some citizens have become more knowledgeable about pipelines. The perceived risks of pipelines to people and the environment have united loose, diverse communities in ways more powerful than a shared ideology or nationality. Political scientist Robyn Eckersley (2004) calls this the "ambit claim," arguing that

> …in relation to the making of any decision entailing potential risk, the relevant moral community must be understood as the affected community or community at risk, tied together not by common passports, nationality, blood line, ethnicity, or religion but by the potential to be harmed by the particular proposal, and not necessarily all in the same way or to the same degree (2004, 113).

The notion of 'ambit claim' implies that citizens are not only members of a political and geographical community that have rights guaranteed by constitutional law. More primordially, shared threats to their environments and long-term livelihoods bind these citizens together into a community of shared risk. This is the meaning I attribute to 'citizen' in the context of anti-pipeline struggles—a term I used throughout the thesis, and one which was continuously used by the groups fighting pipeline projects. One member of an anti-pipeline citizen group, a former unionist in his 50s, explained,

> The citizen approach, it can have a very interesting dimension, because one cannot label us as having a hidden agenda, [like] we are part of an environmental group that has a handle on a very particular subject, to defend against fossil fuels. We go with an approach that takes place with very simple things, but very close to the consumer, to the citizen's person who is there. In other words, we're talking about their potable well-water that will be put at

risk. It is… the contamination of farmland from which their food comes (Interview,[15] December 14, 2014).

In that sense, my usage of the word 'citizen' throughout the thesis stems from my understanding that they were those people who actively speak up in public, in defense of their communities at risk. Citizens in the pipeline debate were often unpaid volunteers—although they often collaborated with the paid staff of ENGOs. These 'citizens' struggled together, and with their organizational allies, against the shared threats from pipeline, thereby attempting to gain a political voice to speak out against the fossil economy, and urge for democratic governance and decarbonized energy systems.

Another dimension to consider in the emergence of resistance to pipelines and fossil fuels is knowledge, particularly regarding which forms of knowing are deemed most legitimate within official solutions to environmental crises. Technoscientific inquiry and market-based approaches dominate energy, climate, and environmental issues. However, Castree and colleagues (2014) argue that the climate debate is incomplete without social science, because of how it analyses various forms of power, knowledge, and culture. In turn, Boyer and Szeman (2014) characterize "environmental and energy dilemmas" as "problems of ethics, habits, values, institutions, beliefs and power"—for which reason social science must occupy a central role in "researching the cultural landscape around us and imagining the future relationship between energy and society that we need to strive toward" (p. 4). Culture has enormous influence on the social conventions that perpetuate modern environmental dilemmas. But the solutions to such social and cultural impasses are not as straight-forward as technical ones, perhaps accounting for "the gap between knowledge and action" (Ibid) that haunts contemporary climate and energy debates.

Resistance to pipelines reflects popular frustration with those gaps between environmental knowledge and social or policy action. While countless researchers hold extensive knowledge about contemporary environmental problems like climate change, and "decades of environmental campaigning have established an unprecedented societal awareness of the multiple sustainability crises," there is often a profound lack of "political will" to tackle those crises (Bluhdorn, 2013, p.20). In the face of the lack of political will,

[15] "L'approche citoyenne, elle peut avoir un côté très intéressant à ce niveau-là, parce qu'on ne peut pas nous étiqueter, comme étant bon on a un agenda caché, [comme] on fait partie d'un groupe environnementaliste qui a une emprise très particulière sur un sujet très particulier, pour se défendre des énergies fossiles. Alors, il va plus nous avec un concept d'approche qui a lieu avec des trucs très simples, mais très proche du consommateur, de la personne du citoyen qui est là. C'est-à-dire, c'est son eau potable dans son puit, auquel il va se trouver aux prises. C'est… le souillage des terres agricoles auquel sa nourriture vient."

resistance to pipelines is one example of the surge of popular frustration to fill in those governance gaps, and to transcend the political—but also cultural (see chapter 2)—impasses of fossil economy logic.

In this sense, I conceive of communities of climate risk as a diverse and loose coalition of groups and individuals that reject oil pipelines and other petroleum extraction projects based on a logic of care for society and ecologies that often runs counter to the imperatives of the fossil economy. Their logic transcends the narrow, technoscientific and economic considerations so often enshrined in pipeline governance. In Quebec, these claims converged around TransCanada's Energy East pipeline, thus sparking broader debates on energy, climate, and society.

1.4 Research question, theoretical aims and objectives

Delving into the relevant literature on critical sociology, environmental sociology, and political ecology, I examined theories related to fossil-fueled neoliberal capitalism, and the production of risk within that economic system. Foster et al. (2011) note in their 'metabolic rift theory' that the organization of life as a function of market transactions and wealth accumulation threatens the stability of socio-ecological relationships. From that insight, a central line of inquiry was how the creation of capitalist value in natural resource governance eclipses other social and ecological considerations, and how resistance to those critical omissions of society and ecology is in turn organized. Indeed, pipelines have become a major proxy for that deeper debate.

Against the backdrop of climate change and environmental degradation, capitalism's focus on markets instead of people or 'the environment' is strange and unsettling. Polanyi wrote, "What we call the land is an element of nature inextricably interwoven with man's institutions. To isolate it and form a market for it was perhaps the weirdest of all the undertakings of our ancestors" (1944/2001, p. 187). Under neoliberal capitalism, instead of an organic element within an evolutionary web of relationships, living beings and systems become dominated by the external necessities of production deadlines, supply chains, and market demand. When labor and land are abstracted from their pre-capitalist web of living relations through commodification and enclosure, the ties of obligation and reciprocity that bind people to the land and other humans are degraded. When capitalism has the last word on pipelines, alternative ecological ways of life are silenced. By critiquing schemes of governance based on petro-capitalism, we set the scene for the analysis of the precepts of anti-pipeline discourses and what they bring to critical conversations about governance in a carbon-constrained world. While this project does not map out the entire public debate on pipelines, I tend to focus on how discourses of social

discord surrounding pipeline projects that attempt to challenge the ubiquity and normativity of energy intensive practices and fossil fuel extraction.

Within this context, the central question of this research project was: "What is the basis of the anti-Energy East pipeline argument in Quebec, and how is that argument articulated, enacted and legitimized by civil society actors?" The research project's central aim was to come to grips with anti-pipeline social action, beyond the narratives of journalists, politicians, corporations, and non-governmental organizations (NGOs).

1.5 Methodology, research rationale and overview of data collection process

The disjuncture between climate knowledge and suitable forms of policy action motivated my methodological choices for this project. As Law and Lin (2009) suggest, "dominant Western knowledge traditions carry and reproduce a metaphysics that seeks to distinguish the world on the one hand from knowledge of that world on the other" (1). Employing an interdisciplinary approach (sociology, anthropology, geography, environmental sciences, political science, and philosophy), I reasoned, might help breach the gap between the world and knowledge of the world. Listening to and analyzing diverse perspectives of resistance against the proposed Energy East pipeline, I sought to understand and interrogate grievances regarding a perceived lack of fit between a pipeline project and climate policy promises.

This project drew mainly upon qualitative research methods as a means of adding richer and more nuanced voices and stories to the pipeline debate, beyond talk of quantifiable emissions targets and numbers. A preliminary literature review to grasp the political economy and environmental sociology of oil sands extraction was followed by in-depth interviewing of key anti-pipeline movement actors. The research project began to take shape when Quebecois civil society actors collectively met in Quebec City in October 2014 to coordinate resistance against the Energy East pipeline project, which was only starting to attract public attention at the time. As previously mentioned, the emerging movement self-consciously identified two central constituencies: environmental non-governmental organizations (ENGOs) and "citizen groups" (named in French as *comités* or *groupes citoyens*). On the one hand, the former groups tended to be based in urban areas in Montreal or Quebec City, possessing moderate financial resources and a small to medium influence on environmental policy. ENGO tactics to oppose pipelines ranged widely, from policy concertation, lobbying, and publishing reports, to pressure tactics that named and shamed government and corporations for environmentally irresponsible actions. Citizen groups, on the other hand, were for the most part residents of areas affected by the pipeline

project that I contacted through my activist networks. The existence of the two labels was convenient from a methods perspective, as well as corresponding to categories that people within the movement consciously applied to themselves.

Following my participation in that meeting, the research coalesced around the anti-pipeline critiques put forward by the loose network of civil society organizations and concerned grassroots citizen groups I met in Quebec City. There, I realized that there were some interesting dynamics of province-wide collaboration and attempted harmonization between resistance groups. The length and scope of the pipeline project threw opposing voices together, contributing to the emergence of "translocal resistance" (Banerjee, 2011, p. 331) whereby groups loosely coordinated strategy and campaigns. Writing from the perspective of social resistance to land acquisitions in West Bengal, sociologist Da Costa (2007) highlights the "growing ability in people's movements to strike trans-local alliances… [and] speak beyond single issues and understand each other's problems collectively" (p. 315). Though the Canadian social context is different from the Bengali, there are noteworthy similarities. With anti-pipeline coalitions in Canada, the threat of the physical infrastructure of a pipeline facilitated a convergence of concrete, local motives involving water quality, environmental protection, and fear of oil spills, alongside global climate concerns and claims for a collective transition to a renewable, carbon sober energy system. In the words of one anti-pipeline interviewee, "These are not separate compartments; it is a whole. This is a global planetary battle"[16] (Interview, December 15, 2014). Here, singular local issues became inter-woven into a larger story of resistance.

I gained access to individuals from NGOs and citizen groups through my previous and ongoing climate activism. In 2009, I participated in establishing a grassroots group called Climate Justice Montreal with climate justice activists coming out of a youth conference held in Ottawa called Powershift.[17] I renewed my involvement with Climate Justice Montreal in late 2013, helping to organize two protest actions to draw public attention to what we considered the problems of building tar sands pipelines in the midst of a rapidly warming climate and worsening human rights abuses.[18] Hence, I was already acquainted with many groups and activists in the

[16] "C'est pas des compartiments séparés, c'est un tout. C'est une bataille globale planétaire."
[17] See http://www.wearepowershift.ca/powershift.
[18] The first action involved an infiltration of TransCanada's open house information session on the Energy East pipeline, where protesters wore similar T-shirts as TCC employees and distributed alternative information about anticipated climate and environmental impacts of the project to citizens (TVA

emerging movement. To contact potential informants for my research, I used "snowball sampling," asking participants involved in oil sands pipeline resistance and protest to refer me to the most active or most significant interlocutors in the debate (Biernacki and Waldorf, 1981).

Before further describing the research methodology, one issue is important to note. The lack of indigenous voices constitutes an important limitation of this research project. That said, there are pragmatic reasons for their absence. Indigenous resistance against oil pipelines has been a recurring theme across North America.[19] At the time of data collection, however, many First Nations in Quebec were not taking public positions when I conducted interviews, with the exception of the Kanien'keha:ka/Mohawk community of Kahnesetake (Rochette, 2014).[20] In my interpretation, their reticence to engage with anti-pipeline movements at this stage was because of the legal protections afforded to them within the Canadian constitution, particularly regarding territorial rights and the Crown's "duty to consult" First Nations under section 35 of the Canadian Constitution (Fidler and Hitch, 2007, p. 55). Because of that constitutional status, First Nations' possessed a stronger legal argument against pipelines on or near their traditional territories than did environmental organizations based in a city or citizens living in a municipality.

Additionally, First Nations' goals were not always the same as those of environmentalists and citizens. This topic is highlighted in a Master's thesis by Jaffar (2015) which analyzes the conflicting narratives for energy transition that juxtapose "establishing a clean economy" and "strengthening indigenous sovereignty." Indigenous issues are central to the pipeline debate in Canada, but the timing of my interviews and other financial and logistical constraints obliged me to focus on non-indigenous social actors.

1.5.2 Research design, actor groups and data collection specificities

In the design of research project, I distinguish between the two categories of respondents: "environmental NGOs" and "citizens." The difference was consciously applied within the movement itself, primarily on the grounds of whether one was working within a formal non-governmental organization or acting as a volunteer, non-professional or citizen affected by the

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Nouvelles, 2013). The second action involved a disruption of the National Energy Board's public hearing for Enbridge's Line 9 inversion project to bring tar sands oil to Quebec (Marquis, 2013).

[19] Noteworthy examples of indigenous resistance include the Yinka Dene Alliance against the Northern Gateway project in British Columbia (http:// http://yinkadene.ca); the Indigenous Environmental Network's campaigns against Keystone XL (http://www.ienearth.org/); and the indigenous-led resistance camps against the Dakota Access Pipeline (Sheppard, 2016).

[20] This has changed considerably since finishing the data gathering and writing phases. On June 15th, 2016, the Assembly of First Nations of Quebec and Labrador, representing forty-three chiefs, publicly asserted firm opposition against the Energy East pipeline (McCarthy and Cryderman, 2016).

pipeline. That said, there was not always a distinct separation between the two categories analytically. For example, one respondent interviewed in this research project—a concerned citizen with no previous experience doing activism—went on to earn a paid position working in concert with an NGO. Some NGO employees are passionate about the cause and engage in activism outside of their job that is not necessarily endorsed by their employer. In spite of this occasional cross-over between categories, the two camps remained more or less distinct yet interrelated within the broader social movement.

I conducted interviews with leaders or spokespeople from organizations that took firm public stances against the Energy East project, or aspects of it: *Équiterre*, the *Association Québécoise pour la lutte contre la pollution atmosphérique*, *Nature Québec*, the *Fondation David Suzuki*, World Wildlife Fund, Greenpeace, and the *Regroupement national des conseils régionaux de l'environnement du Québec*. From the citizen group category, I interviewed members from *STOP Oléoduc*, the *Regroupement vigilance hydrocarbures Québec,* and the *Coalition Vigilance Oléoduc*. To complement interview data, I gathered and analyzed data from NGO and citizen group websites, blogs, and op-eds, as well as mainstream media coverage of the pipeline debate and related issues. Interviews[21] with respondents were semi-structured, meaning I prepared the outlines of an interview guide in advance to ensure I didn't miss potentially important details, but did not necessarily ask the same questions of each respondent. This was mostly used for interviews with NGO members, where I adapted the interview guide to each respondent based partly on their official position regarding the pipeline, which I gleaned from background research of each group's website or their quotations in the media. Questions were also posed, both to NGOs and citizens, in an iterative manner, based on concerns each respondent raised in the interview.

Regarding the political context of data collection, I conducted interviews for this research project in the last year of now ex-prime minister Stephen Harper's Conservative government. Understanding that the environmentalists saw Prime Minister (PM) Harper as their arch-nemesis is critical to grasping the social and political context of the pipeline debate. Greenpeace co-founder Rex Weyler (2012) denounced Stephen Harper as a "climate criminal" because the latter's public policies transformed Canada into a northern "petro-state." The victory of Justin

[21] N.B.: I conducted in-depth interviews of one to one and a half hours in duration between November 2014 and February 2015 with key leaders and spokespeople from environmental organizations and citizen groups involved in social resistance against pipelines. Twelve of the sixteen interviews happened in French, and the remaining in English. Subsequently, I transcribed the interviews to facilitate qualitative analysis (see below more on this approach). Unless otherwise noted, all translations of French quotes into English are my own.

Trudeau's Liberal party in Fall 2015 seemed to bode well for progressive policy action on climate change and pipelines, and the Prime Minister's performance at the UN climate talks in Paris seemed to support that perception (Cullen and Mas, 2016). Analyses put forward in this thesis are focused on the Harper years, though some developments during Trudeau's regime are discussed. It will become clear that the social, political, and economic relationships analyzed in this thesis reveal systemic, market-driven imperatives and stubborn, extant material and cultural realities that are not so easily changed by a different governmental regime. Even in the wake of oil price decreases and PM Trudeau's promises in Paris, the Canadian government was still favorable to pipeline projects (e.g.: Ivison, 2016). The lure of 'black gold' was irresistible, continuing to shape policy despite knowledge of the risks involved and mounting social resistance.

1.5.3 Operationalizing 'society' through theory and discourse analysis

My approach to data collection within this research project is inspired by Alain Touraine's work on social movements and his methodology of "sociological intervention" (1980), and feminist standpoint theory to complement and expand upon Touraine's sociological insights. Emphasizing that the respondent "must take part in the research as an actor and not a subject for observation or experimentation" (Ibid, p. 10), Touraine offers an important insight to help avoid the traps of positivist social research that reduce respondents to functional expressions of a pre-given social order. Elder (2015) claims that Touraine discards the concept of society because of its emphasis on fixed social order over social processes. Instead, society is "permanently produced by collective action"—hence his preference for the term "historical action systems," into which social actors intervene to shape the direction of social processes (p. 34). That said, in the thesis, I retain the word, 'society', though I am using it from a process-oriented perspective whereby 'society' emerges out of an ever-changing dialectic between multiple actors, interests, and voices.

Within this context, critical discourse analysis (Blommaer and Bulcaen, 2000; Dryzek, 2005) is indispensable for unpacking this complex and ever shifting dialectic. Discourse is the lens through which social actors view and apprehend the world; or more precisely, it is "a specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities" (Hajer, 1995, p. 44). From that perspective, discourse is the human capacity to make sense of the world and attribute meaning to events that will inspire a certain style of action, thought or behavior. However, Foucault (2007) pointed out that the production of discourse should not to be analyzed "in terms of types of consciousness, modes of perception

and forms of ideology, but in terms of tactics and strategies of power" (p. 182). In an earlier work, Foucault (1971) wrote that in "every society the production of discourse is at once controlled, selected, organized, and redistributed according to a certain number of procedures, whose role is to avert its powers and its dangers" (p. 8). Thinking about pro-pipeline discourse in terms of power and dominance permits a clearer analysis of the justifications used to, on the one hand, promote fossil fuel expansion in a changing climate and, on the other hand, avert the emerging social power of anti-fossil fuel discourses. In contrast, discourse analysis of anti-pipeline statements elucidates what types of words are selected to rile social and political action against pipelines and the governance arrangements that sustain those projects. Touraine's conceptualization of 'society' and Foucault's approach to discourse helped me analyze, on a deeper level, the complexity of how social actors contesting the pipeline both enacted agency in, and attempted to exert influence on, their social worlds.

1.5.4 Reflexivity and the limits to objectivity: The researcher-informant dialectic

Touraine also evaluates the relationship between the researcher and the social movement actor, emphasizing the need to distinguish "sociological analysis" from the "ideology of the actor" because "ideology is the definition of a social situation by the actor who is involved in it, whereas the sociological analysis is the explanation of the actor by the social relationship in which he is involved" (Ibid, p. 9). The researcher then grasps the meaning of social action based not on the behavior of social actors, but instead in relation to their own analysis of their struggle and the social situation to which they are responding. Touraine writes, "The object of the analysis should not be the behavior of the actor but the analysis which the actor makes of his own behavior and of the behavior of his social partners" (Ibid, p. 11). In interviews, by probing and asking questions that challenged interview respondents to analyze and reflect on the meaning of their resistance to the pipeline, I attempted to solicit their interpretations of the social relations in which they were engaged. Touraine writes that the researcher can play this role "by representing for the actor the highest possible meaning of his action" (Ibid), an interpretation which in turn is confronted, confirmed, or commented on by the actor/respondent.

Through sociological intervention and analysis, the researcher cannot help but 'contaminate' the research process due to the underlying currents of reflexivity inherent to social research. Because the researcher cannot help but be a part of the emergence of society, or what Touraine called "historical action systems" (quoted in Elder, 2015, p. 34), feminist standpoint theory brings much-needed insight to social inquiry. McCorkel and Meyers (2000) underscore the continuous need for the researcher to redirect his or her gaze back toward the self to open space for critical dialogue with subjects about how and why they intervene in social processes (p. 228). Who can

participate, who is deemed to have authority to do so, and how their interventions are mis- and/or re-interpreted by prevailing authorities all become important questions. Unable to erase one's own positionalities of race, class, gender, and ideology, McCorkel and Meyers (2000) suggest that the qualitative researcher should be attuned to "crisis points" from which to learn and which to interrogate and challenge the narratives he or she uses to make sense of the world (228). This research approach resonated with me, as I attempted to navigate critical distance between the sometimes-implausible standards of objectivity in classical social research on the one hand, and identification with militant goals on the other. Taking a reflexive standpoint implies a struggle for a rigorous and fair approach to knowledge generation, by striving to evacuate the specters of bias and subjectivity from social research, whilst remaining honest to one's own ideas and background. Reading the methodologies of sociological intervention and standpoint theory together helped me put critical distance between my identities as both activist and researcher.

With this said, my own subjectivity inevitably influenced the research process. With a bachelor's degree in environmental biology, many years of professional experience working with environmental nonprofits, even more years engaged in environmental activism, and an eight-month part-time contract as administrative coordinator with a coalition of over Quebecois fifty groups opposing oil pipelines and promoting a clean energy transition, I am not neutral on the matter of oil sands pipelines. Indeed, my research reinforced, while also nuancing, my belief of the need for a political economic paradigm shift to address mounting biospheric and climatic threats from systemic adherence to fossil capitalism. As previously mentioned, the methodologies of sociological intervention and standpoint theory brought balance to my inquiry. At the same time, my research attuned me to the nuances of power and culture in the pipeline debate. Therein, I began to sense the limitations of rational and technical arguments that are commonly employed by environmentalists that oppose resource extraction projects. There is no current lack of science-based arguments against building up fossil fuel intensive infrastructure amid a looming climate crisis. This thesis is speckled with references to such expert opinions. However, I recognized the need to grapple with the broader political and social connotations of anti-pipeline arguments; critical discourse analysis became an essential tool to examine the breadth and depth of those critiques.

1.6 Chapter Overview

Chapter two charts how the material risks to climate, ecologies and society posed by fossil fuels and the pipelines that transport them became the central point of contention for the anti-pipeline

movement. From there, I review critical social theories of capitalism and neoliberalism to analyze how market-driven economics and politics exacerbate critical estrangements in human-environment relations. Because of this precarious situation and the potential dangers it poses for the sustainability of human life on planet Earth, I argue that dominant discourses of development strive to conserve the normalcy and popularity of oil-based life as a means of maintaining capitalist accumulation. The chapter concludes with a note on how these dynamics inform what Willow (2014) calls the "new politics of environmental degradation" (p. 237), motivating dissent with respect to petroleum intensive infrastructure projects, but also stimulating new imaginaries of post-carbon futures and forms of social action for a carbon-constrained world.

From there, chapter three broaches important aspects of recent histories of social resistance to oil sands pipelines in Quebec and North America; part of a larger global trend of increasing controversy surrounding mineral and hydrocarbon fuel extraction projects (e.g.: Veltmeyer and Bowles, 2014; Willow, 2014; Horowitz, 2012). To best understand the history requires a grasp of the central place of oil in modern political economies, and particularly the place of 'natural' resources in Canada's often-rigid, resource-based economy. With the increasing importance of lower quality, more polluting, and more expensive "unconventional" hydrocarbon fuels (Owen et al., 2010), the interests of trans-national resource capital increasingly drive Canada's resource policy to extract the country's vast bitumen reserves (Veltmeyer, 2013). Yet, the latter extraction techniques also significantly increase social and ecological risk; various groups and individuals have mobilized to resist specific projects—such as the TransCanada Corporation's Energy East pipeline—as a means of slowing down the production of oil and its main by-product, risk. The chapter moves on to unpack the main features of those early histories of social resistance against pipelines in North America, and specifically in Quebec, concentrating on late 2014 and 2015, but with some discussion of new developments in late 2015 and 2016.

In chapter four, a focus on instances in the early pipeline debate in Quebec permits a clearer analysis of the ways in which powerful social actors frame oil sands pipelines as being in the 'public interest,' notwithstanding the growing chorus of scientific and ethical claims promulgated by civil society to the opposite effect. Engaging with the concept of petrolization, (Karl, 1999; Romero, 1997), or the influence of oil wealth on public policy and lawmaking, is used to explore how powerful corporate interests can compromise a government's functions. The texturing of social institutions—not in terms of concrete and specific organizations, but as in "social conventions or 'rules of the game'" (Moltke quoted in Najam, 2003, p 368)—have been historically configured by deep, long-term contradictions of capitalism explored in chapter two,

as well as the tendencies of extractivism on public policy broached in chapter three. The dominance and normalization of oil-based modern life in existing institutions is nowhere more evident than in oil companies' push to build pipeline as a means of fetching a better price for their bitumen products on global markets. Hence, chapter four explores the dynamics of corporate influence on democratic institutions in the early phases of the Energy East debate. That corporate influence in turn formed a substantial part of civil society's grievances regarding governmental regulatory and review processes of pipeline projects, thereby affecting the possibility for a comprehensive and rigorous democratic debate about pipelines.

Finally, chapter five reveals how citizens' initial reactions against pipeline infrastructure join up with environmental organizations to become broader systemic critiques of petro-capitalist governance. Therein, a renewal of citizenship occurred—not the citizen as a member of a nation-state but rather as participant in and benefactor of what natural scientists call the "Earth system" (e.g.: Steffen et al., 2015, p. 736). Hence, I argue that indignation about the partial hollowing out of governance institutions by oil sands interests—and the corresponding anticipated effects on the biosphere—played a key role in stimulating the politicization of pipelines and the political action of citizens.

With pipeline infrastructure, promoters and their sub-contractors (as well as the governance regimes that approve their activities) blaze out a linear 'right-of-way'[22] through the physical landscape, a conduit for the delivery of crude oil to global markets. At the same time, anti-pipeline reactions cluster against the project, linking together resistant parties across the Canadian territory whose political disagreement forms the basis of the emergent anti-oil or anti-fossil fuel movement. TransCanada argues that almost everything in modern life is powered by or made from crude oil (Energy East Pipelines, 2016), thereby framing their Energy East pipeline project as a "sensible choice" (TransCanada, 2014b). Up until quite recently, even when the shocks of extreme weather and other symptoms of climate change have begun to expose the contradictions of the fossil economy, it has been difficult to imagine the end of oil. In a similar way, Fredric Jameson once wryly observed, "it is easier to imagine the end of the world than to imagine the end of capitalism" (2003: 76). Clearly the same is true for oil. Yet, in their resistance to tar sands pipelines, a network of environmental organizations and affected citizens exposed the obsolescence of petro-centric governance and denounced the political economic push to extract ever more extreme hydrocarbon fuels to satisfy market demand. In doing so, pipelines

[22] The word "right-of-way" is used by the industry and regulators to refer to the "strip of land in which the pipeline will be located" (National Energy Board, 2010, p. 21).

served as a proxy to initiate a broader public conversation about how to transform society and prevent harms and more fairly distribute benefits from the fossil economy.

Chapter 2: Risk, capitalist power and petroleum

Leave the oil in the soil

The coal in the hole

The tar sand in the land

The shale gas under the grass!

Nnimmo Bassey, cited in Rodriguez-Labajos and Martinez-Alier, 2013

"Without pipelines, our lifestyle would come to a crashing halt."

Leon Zupan, Chief Operating Officer of Liquids Pipelines, Enbridge Inc.[23] (CTV News, 2014)

The intensive production and consumption of oil in modern history has had complex and uneven effects—both negative and positive—on socio-ecological relations. Amid the precariousness of potentially irreversible ecological crises, risk has come to define and dominate modern social relationships with 'nature.' The Exxon Valdez oil spill off the coast of Alaska in 1989, the 2010 British Petroleum Deepwater Horizon blowout in the Gulf of Mexico, the human and environmental devastation in the Niger Delta from Shell's activities, and the robust evidence of global environmental degradation all point to the inherent riskiness of fossil-fueled modern life. Rachel Carson's (1962) seminal book, *Silent Spring,* revealed a similar phenomenon of through the lens of other quintessentially modern classes of substances: pesticides. Both fossil fuels and pesticides were so indispensable to the ground-breaking gains in industrial and agricultural production that they facilitated the emergence of an 'advanced' modern society. Over fifty years after the publication of *Silent Spring*, however, the dark side of 'progress' associated with the use of these substances is still making itself known.

This chapter examines the role of risk in driving anti-pipeline movements in Quebec. Drawing on theories on the sociology of risk (Beck 2015, 2009, 2004, 2001, 1992a, 1992b), it will analyze the perceived stakes of pipeline expansion for both environmental and social governance as articulated by anti-pipeline networks fighting against what they sometimes call the proliferation of "extreme energy" (e.g.: Council of Canadians, 2014). I also examine how the political-economic regimes that drive fossil fuel extraction are configured by internal

[23] Enbridge, Inc. (www.enbridge.com) is another Canadian pipeline company whose project of the inversion of a pipeline built in the 1970s (Line 9) was the first to bring Alberta bitumen to Quebec refineries. The project solicited resistance from environmentalists and citizens, but was eventually approved by the federal government and went into operation at the end of 2015.

contradictions that continuously rupture existing human-environment relations. My central argument in this chapter is: as market logic spreads from economic management to all spheres of life and governance, the neoliberal era maintains fossil fuel dependency despite the knowledge of the socio-ecological catastrophes it causes, and in some cases benefiting from those catastrophes. What level of risk will authorities and elites allow in order to perpetuate the 'business-as-usual' tendencies of fossil-fueled modern life? Who benefits most from the status quo, and who endures the brunt of its burden? Capitalism—as an economic system but also as way of life—tends to formulate the economy as separate from and dominant to social and ecological relations. Through a critical examination of contemporary neoliberal capitalism and risk, this chapter therefore lays the foundations for an analysis of anti-pipeline environmental politics. From the fear of the potential environmental catastrophes from continued adherence to fossil fuels and the political regimes that support their extraction, to the recognition that the expansion of oil extraction through pipelines symbolically points to the failure of capitalism as a modern 'way of life', people are beginning to pursue political and social action.

2.1.1 Risk and Petroleum: The principal products of the Anthropocene

Oil is central to the story of modernization, for both its power to revolutionize and to ruin. As Timothy Morton (2013) writes: “In some sense, modernity is the story of how oil got into everything” (p. 54). In this sense, we may think of modernity as petro-modernity. The steep increase in the capacity to extract and convert raw material from the Earth into finished products would have been very difficult, if not impossible, without enormous energy inputs from fossil fuels. Scientists and social theorists alike have called the major leaps in economic production, industrialization, and population growth of the 20th century—in large part from fossil fuels—the “Great Acceleration” (Waters et al., 2016; Morton, 2013; Steffen et al., 2007). The deep and lasting anthropogenic changes to long-term geological processes from fossil power have been so great as to prompt scientists to affirm the existence of a new geological period, the “Anthropocene” (Crutzen, 2002, Waters et al., 2016). Perhaps more importantly, however, the Anthropocene has provided a compelling interdisciplinary framework to mediate conversations between natural and social scientists regarding the transformative consequences of fossil fuels on contemporary human-environment interactions.

Useful for how it unites all climatic and ecological problems into one powerful idea, historian Dipesh Chakrabarty (2011) nonetheless critiques the concept of the ‘Anthropocene’ for universalizing the culprit of environmental change to humanity in general, instead of identifying the cause in uneven social class structures. His central point is that generalizing the origins of petro-modernity as inherent to humanity glosses over uneven distributions of wealth, social

power and human-ecological relations, and the differentiated responsibilities held by various social actors. While several approaches to the Anthropocene have been articulated by the natural sciences, a social scientific understanding of the Anthropocene adds nuance to how the unequal distribution of real and anticipated climate and environmental risks underpins the debate. Indeed, these dynamics heavily inform popular resistance to and criticism of resource extraction and petroleum pipelines.

Sociologist Ulrich Beck's (2009) concept of "world risk society" (p. 55) demonstrates how the gains of the Anthropocene—such as faster transportation, improved living standards, and longer life spans—are disrupted by the production of risks inherent to modernization itself. Following the massive changes following World War Two, when "market expansion, legal universalism and technical revolution… shatter[ed] the boundaries of traditional society" (Beck and Willms, 2004, p. 29), the old certainties of industrial modernity, then associated with specific nation-states, were called into question in the rapidly globalizing world. Traditional institutions dissolved as new, transnational forces emerged such as the World Bank and the International Monetary Fund, as well as a dizzying array of multinational corporations. In the transition from industrial society to what Beck calls "risk society," society was confronted with the "unprecedented possibility of the destruction of all life on planet Earth": nuclear warfare (2009). In the Anthropocene, climate change poses an equally destructive risk. Consequently, Beck (1992a) asserts that risk is, paradoxically, more than merely an uncomfortable side effect of advanced modernity; it has become modernity's primary product and a way of dealing with the catastrophic consequences of endless economic growth and resource extraction on the Earth system (p. 19).

To grasp the deeper implications of risk society, it is critical to distinguish, on the one hand, the catastrophe: a hazardous event for which the cause is unknown or attributed to misfortune, and on the other, risk itself. In Beck's interpretation, risks are not equivalent to chance "pre-industrial hazards" or mere "strokes of fate"; rather, they arise from "decisions that focus on techno-economic advantages and opportunities and accept hazards as simply the dark side of progress" (Beck, 1992b, p. 98). In this context, managing potential hazards engenders a "calculus of risk" and a "technological moralization" whereby statistics and instrumental rationality dominate policy choices (Ibid, p. 99). In a keynote address at the 42nd annual St. Gallen symposium, Beck explained that a consequence of risk society is that governments and other powerholders in society are "increasingly occupied with debating, managing, and preventing risk that it itself has produced," which in turn redefines society's relationship with potential threats (Beck, 2012, my transcription). Social and environmental risks are

apprehended in society as technical problems to be contained or controlled through, for instance, a management plan or an impact assessment, thereby hindering alternate ways of problem-solving, such as lively ethical debates or democratic deliberation.

The world risk society perspective has important repercussions for human and environmental governance, as social and ecological relationships are complex and not so easily 'managed'. From the subterranean flow of groundwater and the porosity of the subsoil, to the presence of an ecologically important species or the unforeseen human health impacts of a given industrial project, the dominant approaches to risk management can be, and often are, inadequate to the intricacies of the non-human and human worlds. Yet, market needs still dominate social and environmental considerations in contemporary capitalist governance, resulting in institutional oversight that can overlook or underestimate the long-term significance of extra-financial impacts from fossil-fueled climate change.

Such catastrophic shortsightedness partially arises from the sorts of risk analyses that governments rely upon to approve oil/tar sands expansion projects, which are often mired within a short-term view that weighs the benefits of jobs and economic growth in terms of Gross Domestic Product (GDP) and other monetary indicators that are often disconnected from social and environmental factors (e.g.: Hiemstra, 2013). For example, in her discussion of the changing oil industry standards on oil rigs in the wake of the Enron scandal and the Exxon Valdez disaster, anthropologist Hannah Appel emphasizes that corporate methods to control risk are indexed primarily to shareholder value and secondarily to human safety—with scant, if any, attention to environmental integrity or labor rights (2012, p. 702).

Governments and corporations often evaluate risk with the supposedly neutral techniques of cost-benefit analysis. As Wegner and Pascual (2011) write, cost-benefit analysis is the “normative view that individual values and net benefit maximization are of prime importance, and that personal values are revealed through choices in the marketplace” (p. 3). However, this perspective fails to consider that the aggregate of these individual choices for “net benefit maximization” (Ibid) has become fundamentally dangerous to life on planet Earth. Regarding such economistic forms of governance, Beck writes that “the traditional methods of steering and control are proving to be inoperable and ineffectual in the face of global risks” (2009, p. 14). In brief, institutionalized forms of risk calculation and management have become obsolete and inadequate for 21st century environmental problems.

From the standpoint of the myriad government and industry reports that vaunt their impacts on the economy (e.g.: CERI, 2014; Arcand, Burt, and Crawford, 2012), oil/tar sands appear beneficial to human lives in the short term. Yet, civil society and municipal political actors

increasingly emphasized that oil/tar sands development is rife with deleterious short- and long-term impacts, from the environmental to the social and economic. For Energy East, the Montreal Metropolitan Community, or CCM (2016), cited impacts that included the loss of 130 hectares of forest, the endangerment of Montreal's drinking water supply, clean-up costs of an oil spill estimated between one and ten billion dollars, and the "lack of an emergency response plan" (p. 4). In relation to pipeline benefits, the CCM listed "33 direct jobs for Quebec and $2M in property taxes for Greater Montreal" and three billion dollars added to the Gross Domestic Product and 750 million dollars in taxation revenue (Ibid). Regarding climate change, the Pembina Institute estimated that Energy East would increase upstream greenhouse gas emissions by "between 30 and 32 million tonnes" (Flanagan and Demerse, 2014, p. 2), or the equivalent in annual emissions of "adding over 7 million cars to Canada's roads" (Ibid). The uneven distribution of such social and environmental impacts motivated the emergence of a social movement—a climate risk community—to resist oil sands pipeline expansion.

Beck's thesis becomes useful when thinking about the public debate on expanding oil/tar sands extraction through the building of pipelines. It draws the conversation beyond mere preoccupation, for example, with the potential hazards of pipelines spills and leaks, including threats to drinking water, and brings attention to systemic issues of climate disruption, energy production and carbon-intensive consumer lifestyles. But as governing institutions continue to rely on decision-making logics that are no longer adequate for the social and environmental problems of the Anthropocene, social movements emerge in resistance. It is to that we will now turn.

2.1.2 Defense against harm and degradation: Fostering communities of care for people and planet

As mentioned above, the impacts of continued fossil fuel expansion are imbalanced. The harms from resource extraction and the excessive dumping of toxic effluents into the planet's atmosphere and waters are not evenly spread; the actors and decision-makers that produce the "bads" of petro-modernity are not the ones most affected by them, and are more likely to reap the benefits (Beck, 2015, p. 76). He writes of

> …a fundamental distinction between those who produce the risk and those who are affected by it… Those who are taking the decisions are not accountable from the perspective of those who are affected by the risks, and those who are affected have no real way of participating in the decision-making process (Beck: 76).

These dynamics explain the rise of "climate justice" as a central feature of social movements' critiques of fossil fuel and pipelines, highlighting that poor and marginalized

communities tend to withstand the worst of oil extraction and climate change (Bond, 2012, p.1).

But injustice is not only experienced or anticipated by the most vulnerable. For oil/tar sands pipelines in North America, the hazards of petroleum production that were traditionally confined to 'peripheral' spaces populated by indigenous people, or to poor, urban, industrialized neighborhoods, now threaten a larger proportion of the population—including affluent city dwellers in some cases. For example, Dufour et al. (2015) argue that the threat of shale gas extraction in the St-Lawrence Valley in Quebec spurred political activism by citizens anxious about threats to their drinking water and their local environments, while simultaneously being disenchanted by the lack of protection from governmental authorities.[24] Similarly, because Energy East would traverse numerous urban and suburban areas, a report authored by the Ontarian ENGO Environmental Defence (2016), in collaboration with seven other organizations, estimates that the pipeline project would jeopardize the drinking water of five million Canadians.

Beck argues (1992) that, in the mid to late 20th century, the impetus for social movement formation shifted from the "solidarity of need"—as exemplified by traditional labor movements struggled for better benefits, wages and working conditions—to a "solidarity motivated by anxiety" (p. 42), where people fight against the harmful impacts of economic development or resource extraction. The degree to which people are exposed to risk thus becomes a new type of social class system, one that overlaps with how the uneven distribution of wealth organizes people along a spectrum bounded by the extremes of "rich" and "poor." The growing and uneven exposure to the harms of industrialism and resource extraction signals an important opportunity arising from global risk society: the congregation of "cosmopolitan communities of climate risk" (Beck et al., 2013, p. 1). Here, the term 'community' is interpreted, in a general sense, as a loose network of individuals and groups that interact, communicate, and take public action together based on their shared concern for the degradation of their living environments and a shared anxiety over potential risks. Such a community would encompass

> new transnational constellations of social actors, arising from common experiences of mediated climatic threats, organized around pragmatic reasoning of causal relations and responsibilities, and thereby potentially enabling collective action, cosmopolitical decision-making and international norm generation (Ibid, p. 2).

[24] See Rivard et al. (2014) for a scientific overview of environmental issues surrounding shale gas production in Canada.

Hence, the “bads” of petro-modernity that provoke communities of resistance can also produce a “common good” in the form of a shock forcing people to question carbon-intensive production (Beck, 2015, p. 75). Risks are both productive and negating, catalyzing a “compulsory cosmopolitanism” and serving as “glue” to unite a diversity and plurality of social actors to challenge obsolete institutions whose operations are perpetuating modern problems of pollution and climate change (Ibid). The possible result could be the creation of new institutions more apt at handling the crises brought on by risk modernity and fossil-fueled production.

To theorize how the necessary institutional changes could occur, Beck (2015) uses the German word “*Verwandlung,*” translated as “metamorphosis,” of social and political relations (p. 77). Contrasted with ‘revolution,’ which is imposed top-down through “doctrine, military, ideology, and violence,” a metamorphosis of governance would involve a larger proportion of bottom-up or grassroots processes. Working from within the context of distributed, internalized power formations, social and political ‘metamorphoses’ would allow those most affected by the risks of petro-modernity more influence on decision-making (Ibid). Experiences and perceptions of “global climate risk” highlight the need for a “reformation of institutions (economy, law, politics) [that] is now urgent, morally imperative and politically possible” (Beck, 2015, p. 82). The hidden potential of risk society, then, is that cosmopolitical communities convening around shared risks will transform petro-modernity from the ground up.

Beck’s optimistic account of an otherwise dire situation is laudable. However, as I will discuss in chapters four and five, the dearth of bottom-up governance arrangements is a major symptom of contemporary pipeline conflicts. social transformation from the grassroots Ormrod (2013) critiques the hopeful predilections of Beck’s risk society theory, noting its usefulness but also its limitation of scope. He writes of “the inadequacies of Beck’s accounts of economic power and subjectivity,” noting the lack of a substantial account of power and subjectivity in Beck's analysis (Ormrod 2013, p. 727). This, Ormrod contends, leads to Beck’s overly confident assessment of the prospects for catastrophes, both real and anticipated, to rally together a “cosmopolitan public sphere” that will create new institutions to reduce and more evenly distribute risk (Ibid). The Capital Institute’s (2011) ball-park estimate of the value of established fossil reserves hovers around 20 trillion dollars. The massive political and economic power of the companies in control of those assets is what the anti-fossil fuel movement emerging across the planet is up against when they advocate for most fossil fuel deposits to remain in the

ground.[25] In the face of such power, Ormrod's critique of Beck's theory requires serious consideration: the transformation of risky, fossil-fueled institutions and infrastructures alone may not adequately consider the uneven power relations in which people and planet are imbricated under the dominance of global capitalism. Hence, it is to the configuration of society by fossil-fueled capitalism that we now turn.

2.2.1 Pushing the planet to the brink for profit: Capitalism's metabolic rift

Nancy Fraser (2015) writes that, more than just an economic system, capitalism is a worldview and an ideology whose influence on life is colossal. In this section, I will review critical eco-Marxist theories of capitalism that point to how capitalist processes of commodification, objectification and accumulation introduce serious ruptures within human-environment relations. As global capitalist actors seek to secure oil reserves to power supply chains and the continual flow of finance, they simultaneously produce significant social and ecological risks. Oil sands pipelines take on new meaning in this context.

Critiques from environmental sociology concentrate on how capitalist logic and practices organize social and economic relations in ways that are often at odds with the Earth system's biophysical limits. Sociologist John Bellamy Foster and colleagues pinpoint the origins of this organizational flaw in neoclassical economics, a discipline that fundamentally shaped modern capitalist policy and practice. Foster et al. (2011) contend, following Marx, that neoclassical economics interprets nature as a "free gift" (p. 72). Because of this, capitalism tends to ignore the role that nature plays as a source of raw materials and as a sink for wastes, therefore compensation is rarely given for environmental destruction. Instead, capitalism emphasizes constantly expanding opportunities for investment in further rounds of commodity production, for which environmental sociologist Schnaiberg (1997) used the term "treadmill of production" (p. 72). Yet, beyond the continuous production of commodities, capitalism's goal is to accumulate wealth before servicing human and environmental needs. Foster (2005) re-named Schnaiberg's concept the "treadmill of accumulation" (p. 7) to encapsulate the central driver of capitalist production more accurately as the endless amassing of surplus values for exchange in capitalist markets.

Foster et al. (2011) argue that appropriating nature—whether it be minerals or hydrocarbons from the subsoil, or food, fuels and fibers from forests and land—as though it were a 'free gift' to maximize accumulation, reflects a practice of "distorted accounting" that rests upon discounting

[25] The popular hashtag #KeepItInTheGround summarizes a primary demand of the anti-fossil fuel movement (Benedikter et al., 2016).

the contribution of nature and ecological relations to the creation of economic value (p. 72). Discounting 'nature' has a long history. During the emergence of industrial capitalism in the 19th century, the deleterious ramifications of capitalism's distorted accounting logic were already being felt. When urbanization and industrial production were well underway, the deterioration of the natural commons prompted the Earl of Lauderdale to suggest the existence of an inverse correlation between public wealth and private riches (cited in Foster et al., 2011, p. 54). As some people became richer, the lands and much of the local population became further impoverished.

The paradox of wealth intensified through the forced removal of peasants from their lands and the industrialization of the English countryside. Marx's observation of those phenomena, coupled with his reading of Justus von Liebig's agricultural chemistry, led to a discerning observation about capitalism (Foster et al., 2011, p. 54): as food and fiber from agriculture were shipped to the booming cities of the industrial revolution, the soil became degraded and drained of vital nutrients. Displaced soil nutrients and other industrial wastes became a major source of pollution in the form of effluents in urban rivers, prompting Marx (1994) to write that "the river is made to serve industry" (p. 128). Capitalist industry made the 'environment' into both a source of raw materials for economic production and a sink for waste. From this perspective, the polluted waterways of industrializing England formed the basis of an implicit ecological critique of capitalism.

Scholars have been arguing for almost twenty years about whether Marx himself made an explicit ecological critique of capitalism (see Burkett and Foster, 2006; Moore, 2003; Burkett, 1999). What can be said is that Marx's empirical observations about industrial impacts to rivers, coupled with his reading of Liebig's agricultural chemistry, led to his theorization of "metabolism" (*Stoffwechsel*, or literally "stuff-exchange"), a concept that elucidated how capitalism disrupts the biophysical "human relation to nature through labour" (Foster, 1999, p. 380). Abstracting the idea of "metabolic rift" from Marx's writings on metabolism, John Bellamy Foster describes a series of critical ruptures where the operating dynamics of industrial systems clash dramatically with the ecological functioning of 'natural' systems. The metabolic rift is thus a key theoretical concept for analyzing the ongoing, disastrous effects of fossil-fueled economies.

The disjunctions between capitalist metabolism and ecological or 'natural' metabolism are driven by a process called commodification. Bakker (2007) writes that commodification occurs when economic goods are isolated and extracted from their socio-ecological context to be sold on markets (p. 103). The "commodification of everything" (Wallerstein, 2004) destabilized modern life, making the often-disastrous consequences of the metabolic rift central features of capitalist existence. Few have written so eloquently on the specificities central to these critical

ruptures in human-environment interactions than Karl Polanyi. Of key importance in Polanyi's (1944/2001) writings on the subject was his thesis on "disembedding": the fracture of the economy from social and ecological relations. Polanyi wrote that the goal of the capitalist system was "[t]o separate labor from other activities of life and to subject it to the laws of the market… [so as] to annihilate all organic forms of existence and to replace them by a different type of organization, an atomistic and individualistic one" (Ibid, p. 171). Instead of a situation whereby economic relations depend on society and are constrained by the limits of nature, social and ecological relations become subjugated to market imperatives. Polanyian scholar Gareth Dale (2012) highlights that price determination by markets in capitalist economies obliterates value as the function of a host of personal, social, and ecological relationships (p. 102). For that reason, Polanyi (1944/2001) described the process of commodification as "fictional" (p. 171). The logic of fictitious commodification disregards value as a function of a nonhuman network of relationships or as the product of human labor. Instead, treating land, labor, and money as commodities for which value stems from capitalist exchange markets, capitalists can justify accumulation processes, and drive them forward at ecologically unsustainable rates.

Writing after the first Earth Day in San Francisco in 1970, ecologist Barry Commoner (1971/2014) put the implications of the metabolic rift and fictitious commodification into layman's terms:

> We have broken out of the circle of life, converting its endless cycles into man-made, linear events: oil is taken from the ground, distilled into fuel, burned in an engine, converted thereby into noxious fumes, which are emitted into the air. At the end of the line is smog. Other man-made breaks in the ecosphere's cycles spew out toxic chemicals, sewage, heaps of rubbish-testimony to our power to tear the ecological fabric that has, for millions of years, sustained the planet's life (p. 5).

Capitalism's metabolic rift is thus wreaking havoc on planet, and environmental movements have become emboldened to incorporate explicit critiques of capitalism into their advocacy practices (see Klein, 2015). Habermas' writings are useful to think about increasing anti-capitalist sentiment in environmental movements; he writes of "legitimation cris[e]s" where the "binding force… [of] strictly universalistic value systems" (such as capitalism) begins to unravel (Habermas, 1984, p. 63). Following the 2008 financial crisis, public faith in capitalist rule began to deteriorate (e.g.: Barton, 2011). Yet, economic growth remained prominent a justification for the oil/tar sands pipelines and other resource extraction projects (e.g.: Natural Resources Canada, 2012b). Environmental movements in turn contested the assumption that fiscal policies

should favor fossil-fueled economic growth, using such slogans as “[t]here are no jobs on a dead planet” to popularize their political message (Arvanitakis and Boydell, 2010, p. 59). In so saying, critical voices emphasized that when the processes that generate economic growth also severely degrade critical social and environmental conditions, there is a fundamental problem: not just regarding the environment, but also of society, politics, and economics. Yet, despite scientific consensus and detailed knowledge of climate change, economic growth remains a deeply entrenched norm in modern governance. If one adds to that the numerous obstacles to reducing fossil fuel dependency, society is faced with a wicked problem.

2.2.2 Trapped by carbon capitalism: Petroleum path dependencies

The entrenchment of economic growth at all costs, epitomized in the proposed expansion of tar sands through pipeline projects, is a form of “path dependence”—or the way in which the “inertia of prior choices constrain[s] future pathways” of economic development and resource use/extraction and solidifies the modern dominance of fossil fuel energies (Araújo, 2014, p. 118). Sociologists Murphy and Murphy (2012) argue that a century of dependence on fossil fuels has resulted in a few major structural barriers to the scaling back of fossil fuel extraction and consumption in Canada. First, new technologies and high oil prices led to the commercialization of previously non-commercial, unconventional petroleum resources, such as tar sands and shale oil. In addition to providing an economic incentive for investors and politicians to expand the oil/tar sands, the increase in unconventional extraction also led to U.S. crude oil production surpassing that of Saudi Arabia (a global top producer) in 2013 and 2014 (EIA, 2015). U.S. shale oil would then come to influence tar sands development pathways, as I will discuss in the next chapter.

Second, under the Canadian constitution, the provinces have control over natural resources, and this control has been reflected in a firm willingness to exploit hydrocarbon resources (Murphy and Murphy, 2012). For example, in July 2015, provincial leaders drafting a national energy strategy expressed interest in accelerating regulatory approval for pipeline projects, in spite of low oil prices since late 2014 (Morrow, 2015). In turn, the built-environment involves a large degree of urban sprawl, making many Canadians dependent on cheap gas and high-carbon lifestyles (Murphy and Murphy, 2012, p. 261). This oil dependence is what George W. Bush famously diagnosed as being “addicted to oil” in his 2006 speech (Bumiller and Nagourney, 2006), and what analysts call “carbon lock-in” (Unruh, 2000, p. 817).

The path dependency of carbon lock-in drives an important dilemma already discussed in the introduction. The dilemma stems from the governance gap between extensive scientific knowledge of contemporary anthropogenic environmental changes on the one hand, and policy

action to adequately address those changes on the other. Fossil fuel production continues to rise, while scientists have argued for more than ten years that carbon intensity of energy production must be decreased to diminish deleterious human impacts on the climate and living systems (e.g.: Socolow and Pacala, 2006). Christian Simard, director of the environmental NGO *Nature Québec*, put it more bluntly: “There is no future in developing [a type of] oil that kills us by climate change” (Interview, November 24, 2014). Pointing out the contradictions between short term economic gains and long term climatic troubles, Simard hints at a solution—a radical policy move, but one that has become the main slogan of the anti-fossil fuel movement: “Keep fossil fuels in the ground” (see Greenpeace USA, 2016).

2.2.3 Regime resistance to post-oil claims

Despite the appeal of the 'Keep it in the Ground' argument (Benedikter et al., 2016), neither wishful thinking nor scientific evidence of climate change seem powerful enough to decelerate oil production. One energy expert working with a US environmental organization spoke anonymously, calling the keep-it-in-the-ground campaign “a tagline in search of a policy” (Mufson, 2016) in lieu of the complex social relations that keep modern societies dependent on fossil fuels. Powerful social actors are seemingly ‘locked-in’ to oil production as long as the commodity has value on global markets and people continue to use oil (Unruh, 2000). Thinking about the power that props up the fossil economy, Frank Geels (2014) critiques Unruh’s theory of “carbon lock-in” for its depiction of a network of inert social actors locked into the contemporary “techno-institutional complex” (p. 15). Seen from a political perspective of “regime resistance” (Geels 2014, p. 15), government and business elites “actively resist[ ] fundamental change” proposed by civil society and social movements for low-carbon technologies and development policies.

One form of such ‘regime resistance’ occurs when even policy efforts and corporate practices that aim to reduce energy use and greenhouse gas emissions are instead for private gain. For instance, Böhm and co-authors (2012) argue that carbon accounting and offsetting schemes (such as those programmed into the Kyoto Protocol’s Clean Development Mechanism or the “cap and trade” mechanisms of carbon markets) often stimulate new rounds of capitalist accumulation while also conserving environmentally problematic consumer lifestyles for the near future. From the perspective of Geels’ concept of ‘regime resistance’, such market-based approaches to carbon lock-in avoid deep structural changes to fossil-fueled capitalism and downplay qualitatively different energy futures or development pathways involving less consumption and resource extraction.

Another form of resistance to deep changes to carbon capitalism has become popular even with environmental organizations. Eric Swyngedouw (2011) argues against a trend in NGO discourse and practice of “carbon fetish”: a discourse that frames the problem of climate change and ecological overshoot uniquely in terms of carbon and greenhouse gas emissions (p. 265), without attention to social, political and cultural questions. While the quantification of climate impacts can be an important lever in pressing against capitalist regimes and their accounting systems—which often discount the true costs of fossil-fueled climate change—the “carbon fetish” narrative may also work against social movements’ work for deeper systemic transformation. Swyngedouw (2011) writes that through

> the reification of complex processes to a thing-like object-cause in the form of a socio-chemical compound… CO2 stands here as the classic example of a fetishised and externalized foe that requires dealing with. Problems, therefore, are not the result of the ‘system’, of unevenly distributed power relations, of the networks of control and influence, of rampant injustices, or of a fatal flaw inscribed in the system, but are blamed on an outsider (p. 265; 269).

Swyngedouw raises the distinct possibility that the techno-fixes and financial instruments of the emerging green – but still predominantly fossil fuel – economy do not reduce the systemic risks of climate change and ecological degradation. Furthermore, he exposes the limits of many NGO campaigns that may focus on emissions targets and the immediacy of international climate conferences while often ignoring the frontline communities that live with the firsthand effects of resource extraction on their territories or climate change itself. Naomi Klein (2015) seems to agree, suggesting that if greenhouse gas emissions had been reduced in the 1980s or 90s, when anthropogenic climate change was coming onto the policy radar, then a gradual reform of the capitalist system would have been feasible. Almost two decades into the 21st century, Klein suggests that the longer we wait, the more drastic social and economic changes will be, requiring even more dramatic emissions cuts but precluding the possibility of an overall reform of the capitalist system.

Geels’ (2014) notion of 'regime resistance', then, demystifies a tactic whereby dominant capitalist actors propose modest and quantitative greenhouse gas emissions reductions only to avoid the crucially important, qualitative transformations needed to alter prevailing carbon-intensive development paths. Hence, corporations and governments pursue status quo activities that conserve capitalist accumulation, despite appearing to make efforts to tackle climate change. Such efforts, as Swyngedouw (2011) points out, are sparking the creation of lucrative “derivative market[s] of [carbon] futures and options” (p. 265) based on carbon offsetting

schemes present in the Kyoto Protocol and other climate agreements. In the face of mounting social resistance and public criticism, the primary beneficiaries of the fossil economy continuously find new ways to shelter their business model from the political-economic threat of fossil fuel production caps. Beyond Murphy and Murphy's socio-technical conditions of carbon lock-in, the power and rationality of petroleum dominance require attention. For that reason, we now turn to the conjuncture between neoliberalism and petroleum to understand the context for current anti-pipeline arguments.

2.3.1 Oil or nothing: Neoliberalism and petroleum's precarious dominance

Many social theorists (e.g.: Labban, 2014; Huber, 2013) have critiqued the way in which complex social relations involved in natural resource extraction, carbon-intensive production and fossil-fueled consumption are often reduced, in mainstream media and policy rhetoric to the mere pursuit of the economic rewards of oil. Yet, dominant political regimes of neoliberalism play a chief role in shaping social responses to fossil-fueled environmental change and pipeline resistance. Engaging critically with the dynamics of neoliberalism is necessary to forge a nuanced critique of the modern fossil economy that avoids reducing complex social relations to overarching political economic structures, while seriously considering the latent structural imperatives that are wrapped up with various forms of political and economic power (Labban, 2014; Huber, 2013). This section deals with the role of neoliberalism in influencing pipeline politics.

The neoliberalization of nature has emerged as a key 'solution' to global environmental crises (Igoe and Brockington, 2007). As world leaders as well as companies look to the free market economy for solutions to climate change and other environmental problems, scholars began to note that the implementation measures of utopic green economic policies, such as payment for ecosystem services (Kosoy and Corbera, 2010) and cap and trade carbon markets (Böhm, Misoczky and Moog, 2012), can be ineffective or even harmful. Richards and Lyons (2016) suggest in a case study on Norwegian investment in large-scale land acquisition in Uganda" that financial measures like carbon markets can lead to corporate land enclosures that have "serious negative effects on local communities" (p. 209). Climate justice movements, including the Leap Manifesto campaign initiated by Naomi Klein and other social movement leaders and signed by more than forty thousand people, are equally mistrustful of free market approaches to solving climate change (The Leap Manifesto, 2015). The promoters of the Leap Manifesto call, above all, for a "Canada Based on Caring for the Earth and One Another," which for them is threatened by an economic model that conserves the conditions for continued oil

extraction and uneven capitalist accumulation (Ibid). To understand the basis for the preceding claims requires an analysis of neoliberalism as political and economic practice.

While cautioning against oversimplifying what is a complex historical phenomenon, Heynen et al. (2007) summarize neoliberalism as "an economic and political philosophy" that "eschews social and collective controls over the behavior and practices of firms, the movement of capital, …the regulation of socio-economic relationships" (p. 3) and, ultimately, the flow of oil. However, Heynen et al.'s focus on market freedom can be misleading. Political theorist Bill Connolly (2012) writes that neoliberals promote *laissez-faire* economics mostly at the level of discourse because their project requires significant government and/or judicial intervention to set the rules of the market. This is because the spontaneous generation of markets is rare, an issue I broach in chapter three with Andreas Malm's (2016, 2012) discussion of the historical origins of coal and steam power. Instead, markets require a variety of preliminary conditions and interventions to get them started. To accomplish this, neoliberals push for the withdrawal of state functions by withholding fiscal stimuli and funding for public programs and services, whilst market-friendly policies and subsidies are "rolled out" (Peck and Tickell, 2002; McCarthy and Prudham, 2004, p. 276). Castree (2008) echoes this claim, arguing that policy deregulation is usually followed by a re-regulation that favors neoliberal objectives, including capitalist accumulation, the commodification of natural resources and the privatization of public services.

In this view, neoliberalism is a global experiment to determine "whether a market economy can, in fact, serve as the principle, form, and model for a state," and which has led to the "organization of society on the basis of the market economy" (Foucault 1979, p. 116). Neoliberalism favors a world where all social actors, not just corporations and markets, obey capitalist imperatives. As sociologist Pierre Bourdieu remarked, the objective of neoliberals to increase profitability by "reducing labor costs, reducing public expenditures, and making work more flexible" extends to all social actors (1998, para. 1). Aspiring to a "scientific description of reality" (para. 1) to produce the "utopia of a pure and perfect market" (para. 5), neoliberalism is based on the "mathematical fiction" (para. 2) of neoclassical economics (Bourdieu, 1998). But neoclassical economic theory is based on the mechanics of a closed system like the steam engine, instead of an open complex system that is closer to the dynamics of living systems (Sagan, 2005). From that perspective, neoliberal governance is based on obsolete knowledge that configures economic and political systems in ways that run counter to the laws of thermodynamics.

Therefore, the paradox of wealth is a chief feature neoliberal logic: as private wealth increases for the few, public harms increase for the many. Similarly, the resource turn in

economic development, evidenced by the oil sands in Canada, the shale boom in the US and other mineral extraction projects, is producing increasingly large amounts of climate and environmental risk. Pineault (2013) warns that a renewed emphasis on natural resource extraction is a hedge against the failures of neoliberalism to assure continual economic growth. The slowing down of the global economy, along with increasing demand for resources from emerging markets, justifies increased financial investment in resource extraction—which in turn produces even more climate and environmental risk. Additionally, neoliberal processes concentrate wealth in fewer and fewer hands, a phenomenon the Organisation for Economic Co-operation and Development (OECD) observes through a marked global trend of increasing economic inequality in recent years (2015). Hence, not only the climate and the poor, but also increasingly those people historically referred to as the 'middle class', become casualties of neoliberal reason when they suffer from the adverse consequences of fossil-fueled modern life.

Champions of neoliberalism camouflage the adverse consequences of their policies with discourses of efficiency, jobs, and the attainment of a self-regulating economy and zero public deficit, to name a few examples (see Streeck, 2011 and Chouinard, 2014). Regarding oil sands, the industry lobby group the Canadian Association of Petroleum Producers (CAPP) justified production based on energy security, a "strong economy" and "increasing global demand" (CAPP, 2015). Such discourses serve to justify the neoliberal project while evading closer scrutiny. Public pressure and NGOs campaigning against this logic have created some strides in favoring discourses, and to some extent practices, of "Corporate Social Responsibility" or CSR (Shamir, 2004). Yet Steve Lerner suggests that corporations still overwhelmingly convert places and the communities that inhabit them into "sacrifice zones" to enrich some investors (2010). Contra to the oft-stated goals of a 'strong economy' to efficiently meet the needs of society or mitigating harm (or through voluntary guidelines like CSR, the status quo of fossil-fueled neoliberalism locks the world into the paradox of wealth. Eric Pineault seems to concur, arguing neoliberalism is a "social practice" aimed at consolidating "the space for specific capital accumulation processes on which restored class power is based" (2012, p. 30; see Harvey, 2006). As the production of private wealth increases, so too do harms to the common good, such as ecosystems and the climate.

2.3.2 The depoliticization of oil-based life

Since the end of the cold war, neoliberal approaches have held sway in the globalizing political economy, and elites present capitalist markets as superior frameworks for resource allocation and governance whilst arguing there are no viable alternatives to neoliberalism (Read, 2009, p. 36). Yet, Kenis and Lievens (2014) note that neoliberal governance tends to obfuscate relations

of power, social conflicts, and decision-making realities, as well as rendering invisible the environmental consequences of capitalist accumulation. They argue the neoliberal consensus gave rise to “new types of thinking about the environmental question” (Kenis and Lievens, 2014, p. 3) focusing “on managerial, individualised, technical and market-oriented measures” for solving the environmental crisis (p. 2). As the risky by-products of fossil-fueled modernity destabilize the climate and wreak environmental havoc, political and economic responses exacerbate the problem. Despite the severity of environmental changes, governments, corporations, and non-governmental organizations still predominantly opt for market-driven 'solutions' to environmental problems such as climate change. In a similar vein, Wolfgang Streeck (2011) writes that

> [m]ore than ever, economic power seems to have become political power, while citizens appear to be almost entirely stripped of their democratic defenses and their capacity to impress upon the political economy contents and demands that are incommensurable with those of capital owners (p. 29).

The effect of such larger political economic tendencies has been a depoliticization of the pipeline debate, whereby capitalist owners and governments frame oil sands expansion as the only sensible development pathway for Canada—exemplified by the “sensible choice” of the Energy East pipeline (TransCanada, 2014b). In that context, claims for alternative, post-carbon futures or participatory governance arrangements are neglected in favor of the imperatives of capitalist accumulation. Wilson and Swyngedouw (2014) describe the situation as “post-political,” whereby political “space[s] of contestation” and democratic processes are “colonized by… technocratic mechanisms and consensual procedures that operate within an unquestioned framework of representative democracy, free market economics, and… liberalism” (p. 4).

With democratic spaces rapidly disappearing in the wake of neoliberal governance, social resistance latches on to concrete projects being proposed, like oil pipelines. When dominant social actors have been rendered more responsive to markets than to the health and well-being of people and the environment, saying “no” to pipelines is one way to attempt to change the material situation. For example, anti-pipeline groups in Quebec have called the governmental oil sands pipeline reviews in their province “anti-democratic” (Front commun pour la transition énergétique, 2016). At the same time, such democratic crises call forth concerned people to resist problematic forms of political economic power. Within this context, anti-fossil fuel movements break ranks with petroleum hegemony, effectively reframing oil as a political object and challenging its harmful consequences. Darin Barney (2014) writes that oil extraction

> is a *political* project, but it is *depoliticizing* in the sense that it casts development of the oil sands as a self-evident, collective good whose pursuit is beyond reasonable dispute, thus closing down the space in which those who think otherwise might make claims to a different future (para. 5).

The material infrastructure behind oil extraction is thus not just a banal means to achieving an end, but rather it is revealing of the ideology of a civilization, and as such, it is intensely political. Contrast this with oil sands advocate Ezra Levant, who provides a telling and colorful example of the implications of the depoliticizing thrust of pipeline politics. He says: "Now, obviously I'm all for oil pipelines, just like I'm for all telephone lines, and cable for your T.V., and sewer pipes... Now, as long as they follow the rules, these are not political things" (Sun News, 2014). Clearly, Levant does not distinguish petroleum infrastructure from any other type of infrastructure, as though they are all equally important ingredients of society. More interesting, perhaps, is that he does not consider pipelines to be "political things," so long as they follow "the rules." But when those rules ignore the ecological contradictions of capitalism described previously, this conserves infrastructure and institutions that perpetuate the metabolic rifts that destabilize human-environment interactions. Furthermore, by normalizing—even naturalizing—pipelines, Levant disqualifies ecological stances that propose new ways of producing and consuming that might resolve the metabolic contradictions of modern capitalism. His quote also reveals the cultural bases of the fossil economy that constitute its strong grip on public policy and the engines of economic development. To further analyze this dominance, the next section will move beyond its political economic justifications to explore the underlying cultural factors.

2.4 Sustaining petroculture: Hegemony, common sense and fossil knowledge

In a society where most people have a car and almost every modern product requires petroleum at some stage of its production, Canadians have difficulty imagining a future without petroleum. A myriad of fossil-fueled machines, products, and technologies mediate everyday conduct. The material and structural dimensions of a fossil fuel dominant economy are thus not the only important questions regarding carbon lock-in and other challenges of the Anthropocene (Unruh, 2000; Haley, 2011). Culture matters, too. Noel Castree and more than a dozen colleagues (2014) argue that despite calls from "global environmental change" (GEC) scientists to "help humanity confront the momentous biophysical implications of its own actions," such knowledge "endorse[s] a stunted conception of 'human dimensions' at a time when the challenges posed by GEC are increasing in magnitude, scale and scope" (p. 763). Often, social science and humanities questions are ignored or misinterpreted in cultures where expert administration and management tend to privilege instrumental and technical knowledge over indigenous or

traditional knowledges. In contrast, interdisciplinary exchanges “should engender plural representations of Earth’s present and future reflective of divergent human values and aspirations” (Ibid), thereby introducing policy conceptions about what post-carbon alternatives are possible beyond the fossil-fueled status quo. Therein, the slippery concept of culture is of crucial importance.

Anthropologist Clifford Geertz, remarked that “man is an animal suspended in webs of significance he himself has spun,” and that those ‘webs of significance’ by which humans give meaning to their worlds are what can be properly called “culture” (1994, p. 213). How those webs are constructed is constrained by the environments in which the ‘web-spinners’ are embedded— environments that are always to varying degrees ‘natural’ and human-built (Milton, 2013, p. 109). Commenting on this intersubjectivity of humans and nature, scholars have begun to analyze the dominant discourses of modern economic development that normalize "cultures” and practices of continued and intensive petroleum use (see Szeman, 2014; Huber, 2013; Worden, 2012). The idea of “petroculture” is central to that analysis, referring to how the material conditions of the automobile-centric, built environment and the institutions of governance that emerged during the rise of petroleum dominance reinforce cognitive norms that shape values and attitudes through everyday practices (Lemenager, 2012; Stephenson et al., 2010). From driving and working to eating and buying goods and services, every modern interaction between humans and their environment depends on some form of hydrocarbon. In turn, those fossil-fueled interactions influence the ‘webs of significance’ that humans construct and in which they are suspended.

Oil companies reinforce petrocultural norms in their marketing campaigns. For example, advertising from the TransCanada Corporation, promoter of the Energy East and Keystone XL pipelines, emphasizes the ubiquity and advantages of petroleum. In a video commercial, TransCanada Corporation (2014) invites viewers to identify the sixty-eight travel items made with petroleum that a family is packing to go on vacation. The ad’s voice over says: “The more we know about oil, the more TransCanada’s Energy East Pipeline project becomes a sensible choice” (TransCanada Corporation, 2014). The corporate advertisement implies that modern consumer culture is petroleum-based, and that without oil pipelines, it would be impossible for modern society to continue. From that perspective, the corporation insinuates that blocking the expansion of oil infrastructure—as environmentalists and others in the anti-tar sands movement attempt to do—doesn’t ‘make sense.’ Leon Zupan, Chief Operating Officer of the Canadian pipeline company Enbridge, echoed the sentiment in an interview with a Canadian news outlet, saying that “[w]ithout pipelines, our lifestyles would come to a crashing halt” (CTV News, 2014).

Such an instance of petroculture discourse suggests that without oil, both the luxuries and the staples of modern life, such as travel, leisure, consumerism, and a satisfying private family life, would disappear.

Invoking fear of the unknown regarding the viability of post-consumer and low-carbon futures, petroculture discourse speaks to a strong, public desire for the comforts offered by carbon-intensive modern consumerism. Given the potent appeal of petroculture discourse for such lifestyles, then, evaluations of fossil fuel energy choices cannot rest solely upon critiques of capitalism. To unpack the cultural and political discourses that play a role in garnering widespread and continuing support for fossil-fueled modernity, Gramsci's (1971) concept of "common sense" (p. 322) sense is a good starting point. Referring to the uncritical and unconscious way of perceiving and understanding the world that leads to the formation of social norms, common sense elucidates how fossil fuel use is normalized in modern society (Gramsci, 1971). Common sense makes up the conditions of possibility for "hegemony," or the "spontaneous consent given by the great masses of the population to the general direction imposed on social life" by dominant groups (Ibid, p. 12). The stunning energy returns from oil and fossil fuels provided elites with the power to produce cheap goods and technologies in significant quantities (a theme briefly touched upon in the next chapter). In that context, life without cheap oil and its benefits seems inconceivable, and even undesirable, to many. Dobson (2007) writes, "A technological, affluent, service society' is indeed more than ever 'a fair description of the twenty-first-century political aspiration to which most people would probably subscribe" (p. 5). Hence, oil permitted a new form of hegemony anchored in material practices of consumerism, in addition to ideological beliefs of liberty and prosperity.

Anthropologist Bret Gustafson (2012) makes a similar argument about the normativity of fossil-fueled life, and how it feeds popular sense perceptions of material, affluent lifestyles. Gustafson claims that pro-oil social actors frame the perpetuation of carbon-intensive consumer lifestyles as the superior and unquestionable trajectory by which all political and economic decisions ought to be oriented (Gustafson, 2012). In this way, "fossil knowledge networks"—encompassing much of the political and business elite—normalize and advocate the maintenance of fossil fuel as society's primary energy source (Ibid, p. 312). Cultural theorist Tracy Lassiter (2012) concurs, suggesting that "hegemonic discourse often portrays as 'normal' or desirable the use of fossil fuels, despite the devastation brought through accessing those fuels" (p. 130). Through the normalization of carbon-intensive practices, fossil knowledge networks contribute to the ongoing manufacturing of consent for the consumer ways of life in petro-modernity. Gustafson (2012) warns, "fossil knowledge captures, articulates and contains

critical ways of knowing" (p. 326), resulting in a tacit and widespread perception that carbon-intensive lifestyles are the most desirable forms available to humankind. Communicated in media, advertising, and public relations campaigns, fossil knowledge is often implied in public policy choices and favored through economic projects that stimulate short-term job creation in resource extraction. In this way, fossil knowledge reinforces systemic carbon dependencies, acting as a form of "regime resistance" (Geels, 2014, p. 1). Fossil knowledge and the hyper-consumerism it encourages can thus be seen to be hegemonic, conditioning the consent of consumers for the continuation of modern society permitted by rampant oil use.

2.5 The emerging social dissensus against oil

When oil sands proponents normalize petro-modern life whilst promoting modest reductions of energy consumption and advancing insufficient energy efficiency measures, they simultaneously separate out oil from politics. Yet, in a time of burgeoning climate crisis, common sense judgments that frame oil extraction and its supporting infrastructure (such as pipelines) as part of a 'normal state of affairs' beg reconsideration. In contrast, groups sometimes arise that seek to break the hegemony in a discursive struggle between dominant and non-dominant ideologies and practices, or what Grasmci (1971) called the "war of position" (p. 238). Sociologists argue that the anti-fossil fuel movement is evidence of a contemporary 'war of position', composed of groups that struggle against pro-oil interests "to de-legitimize the hegemony of the oil complex (Haluza-Delay and Carter, 2014, p. 357). Fossil-fueled production and consumption are thus assured not only through coercion and direct command, but most importantly through the generalized social agreement regarding the common sense of oil. As TransCanada's advertising campaign stated, oil is the only "sensible choice" (2014), implying that oil is justified based on the sensuous benefits it supposedly produces—though it is telling that the family in the corporation's commercial was white and middle-class, hinting at the idea that oil does not equally benefit everyone.

In the face of risky, market-driven oil production, new spaces of contestation and sites of struggle for different ways of living more in accord with the Earth system emerge. Underlining how contemporary modes of industrial production or consumption destabilize the climate or degrade life, concerned civil society actors grouped together on the fringes of Copenhagen's 2009 UN Climate Summit. These climate activists claimed that a sustainable economy requires deep systemic changes that include "phasing out fossil fuel" (Klimaforum09, 2010, p. 34). By attacking the use and production of fossil fuels—particularly the riskier, unconventional types like oil sands that I examine in the next chapter—anti-fossil fuel activists re-politicize the oil pipelines, and in so doing, question the status quo of oil dominance.

To explore how re-politicization occurs, an examination of political theory is useful. Counter to theories that frame politics as the authoritative and rational resolution of conflicting interests in society (Easton, 1965), Ranciere (2004a) asserts that “politics is not primarily the exercise of power or the deciding of common affairs” (p. 6). Consequently, politics is not just a battleground consisting of warring political interest groups or ideologies concerning money or tradition, nor is it simply an external dispute about who gets how much of what. In Ranciere’s (2004b) view, political and social relations emerge from and through a dominant ontological regime that “produces a system of self-evident facts of perception based on the set horizons and modalities of what is visible and audible as well as what can be said, thought, made, or done” (p. 85). At the core of his theory is the “distribution of the sensible,” a notion connoting a subliminal register of sense perception that sets the boundary between acceptable and non- (or less) acceptable behavior (Ranciere, 2000/2004b, p. 6). Ranciere names the dominant form of the distribution of the sensible the “police order” for how it coordinates sensible behaviors that “preclude the emergence of politics” (Ibid, p. 89) and alternative interpretations of what is good, true, or beautiful in society. Understanding how sense impressions, experiences and verbal utterances are sorted as nonsensical or commonsensical helps explain some of the ways in which neoliberal consensus annuls political claims to alternative societies beyond fossil fuels and consumerism.

From the idea of the distribution of the sensible flows the realization that politics is fundamentally about aesthetics. Not in the sense of art and beauty, as Jane Bennett (2007, drawing on Ranciere) clarifies: politics has the potential to be “a site where a reordering and transformation of conditions of perception… and ultimately new forms of subjectivity might arise” (p. 72). The distribution of the sensible and political aesthetics, then, do not just account for petroleum hegemony; they point to the emergence of a truly transformational politics, one that goes beyond Swyngedouw’s “carbon fetish” (2011: 265) and techno-managerial solutions to carbon lock-in that conserve capitalism’s deep structural tendencies toward metabolic rift. Indeed, such politics has both positive and negative transformative potentials. For such a transformational politics to emerge against, for example, fossil fuel dominance, Ranciere (2004a) would argue that it would need to “initiate a quarrel over the perceptible givens of common life” (p. 7) and call into question how symbols, institutions, and human subjectivities themselves are shaped by fossil knowledge.

As I argue in chapters four and five, instances of pipeline politics galvanize concerned people into active citizenship roles where they grapple for words and actions that will transform the material situation of unjust, fossil-fueled energy and society. In that sense, the pipeline

debate is less about climate or energy than it is about democracy. As Ranciere states, “Neither a form of government nor a style of social life, democracy is properly speaking an act of political subjectivization that disturbs the police order by polemically calling into question the aesthetic coordinates of perception, thought, and action” (2000/2004b, p. 83). In other words, democracy exists when people speak out against the imperatives coordinating the fossil economy and the petroculture it sustains. However, dominant governance actors resist pressures to significantly reduce oil extraction, instead tending to favor the status quo of carbon lock-in, while also squeezing citizens out of the political process itself and depoliticizing the risks arising from pipelines. By promoting a ‘modern’ sensibility of economic growth and liberal progress, the neoliberal state and its partner-corporations attempt to manage social resistance and create a “social license” (Prno and Slocombe, 2012, p. 346) for the market opportunities offered by fossil fuels. ‘Social license’ is not about reconfiguring the fossil economy to deal with the consequences of the metabolic rift., but rather to merely manufacture public consent. In that sense, the neoliberal state attempts to quell anti-pipeline polemics, and the political potential that those dissenting voices carry to transform the “aesthetic coordinates of perception, thought, and action” (Ranciere, 2000/2004b, p. 83) of the dominant petroculture and fossil economy. Anti-pipeline politics—silenced, ignored or ridiculed within the dominant order—pushes back against the anti-democratic tendency of the neoliberal state. As sociologist Eric Pineault (2016) argues, the idea of social license in the pipeline debate revealed an “illusion of democratic conversation” (p. 80). Through a struggle for recognition and public legitimacy, anti-fossil fuel and anti-pipeline voices gradually politicized oil and oil pipelines as the actual material sites of the flow and exchange of global capital. For that reason, pipelines were particularly vulnerable targets for those seeking to slow down the degradation of living systems by capital, and transform governance for a more sustainable and ecological society.

Overall, social resistance against pipelines can be analyzed in many ways, yet Karl Polanyi’s (1944/2001) thesis of the 'double movement' is perhaps the most insightful. Polanyi’s proposition was simple: in society, there exists, on the one hand, pressure for market liberalism and the free circulation of capitalist investments for economic growth, and on the other hand, pressure from a “counter movement” for “social protection aiming at the conservation of man and nature as well as productive organization, relying on the varying support of those most immediately affected by the deleterious action of the market” (1944/2001, p. 138). Against the backdrop of market liberalization, the 'counter movement' of citizen and environmentalist resistance seeks to protect the environmental and social conditions that safeguard health and well-being. Such conditions provide the long term means of productive labor and land that

assure economic success, even though their short-term subversion generates substantial, albeit unequally distributed, economic prosperity. In the next chapters, we will analyze cases of how, as liberalization further reinforces the orientation of political and economic elites toward primary resource extraction, anti-fossil fuel citizen groups—perceiving neoliberalized governments to be less and less responsive to broader environmental interests and social well-being—strive that much harder to be heard and influence the political process. The story will begin with a look at oil's rise to dominance and its tenuous yet stubborn grip on the world.

Chapter 3: Histories of extractivist dominance and tar sands resistance

Oil's dominance appears to be gradually waning in the world system. One 2015 report demonstrates that more money was invested globally in renewables than in fossil fuels (Clean Energy Canada, 2016). One year later, in March 2016, Canadian Pacific Railway chief executive Hunter Harrison flatly stated that fossil fuels are "probably dead" (The Canadian Press, 2016). Moreover, a federal government think tank suggested that global oil demand may well "decline further and faster than expected with significant impacts on high-cost producers" (Policy Horizons Canada, 2016, p. 1).

While such prognoses may or may not be limited in their accuracy, they all reflect a mounting sentiment: the future of petroleum is increasingly uncertain. Decreases in global oil prices, widely expected to deliver a much-needed stimulus to the economies of oil-consuming nations as it has oftentimes done in the past, failed to do so between 2014-16 (see Elliott, 2016). The conjuncture of falling oil prices and slow economic growth is leaving pundits perplexed and politicians anxious to find other means of economic stimulus for their respective populations. A constellation of factors including geopolitical competition, clean technology innovations, climate risk, and more readily accessible information about environmental issues all play a role in the emerging decline of oil. And with the high cost of bitumen production (Kuuskraa, 2016, p. 131-132), Canada is especially vulnerable.

Yet, in the spite of the emerging decline of oil, ambitious national government policies to direct a post-fossil fuel society remain elusive. Winfield (2013) asserts that the absence of an official energy policy conceals a *de facto* market-driven interest (p. 21). Meaning, government oversight is skewed in terms of economic viability, tending to favor pipeline projects even in light of mounting climate and environmental risks of oil. For instance, the former Canadian Prime Minister Stephen Harper's government (2006 to 2015) largely ignored climate policies of decarbonization or carbon pricing in favor of oil sands expansion. Since the election of the Liberal Party in October 2015 and subsequent Canadian Prime Minister Justin Trudeau's signature of the United Nations Paris climate accord, climate change looks to be back on the political agenda. At the same time, the Alberta Oil Sands still figure prominently in Canada's economic plans, and the Trudeau government, like the Harper government before, seems to prioritize pipelines (Ivison, 2016).

From that perspective, this chapter lays out important elements of the historical context of natural resource—particularly oil sands—extraction in Canada, and the social resistance such

projects are beginning to solicit. To begin, I will explore a brief history of the transition to fossil fuels as dominant energy sources which, today carries lessons for the prospects of a transition to green energy society. Subsequently, I will discuss how the changing global political economies conditioned the profitability of oil sands extraction in Canada, in turn driving the argument for TransCanada's Energy East pipeline. The chapter will close with a review of noteworthy aspects of the history and politics of anti-pipeline movements.

3.1.1 The world's fossil economy: A very brief history of oil

Co-founder of OPEC, Juan Pablo Pérez Alfonso, once quipped that petroleum was the "devil's excrement," lamenting that "[it] brings trouble...Look at this *locura*—waste, corruption, consumption, our public services falling apart. And debt, debt we shall have for years" (The Economist, 2003). In spite of its "craziness" (Ibid, my translation), oil's tremendous concentration of carbon-hydrogen bonds makes it one of the most energy-rich, and thus useful, substances in existence. Since the emergence of the modern petroleum industry in 1874, the extraction of oil has become a primary object of various forms of political and economic power. The widespread use of oil then permitted the hitherto impossible, large-scale transformation of planet Earth and human lives (Mitchell, 2011). Oil, and the regimes it powered, catalyzed not only the world-changing revolutions in transportation, communications, and industrial production of the 20th century, it also brought with it the consequences of war, violence and environmental change (Karl, 2007). This is the paradox of modern development analyzed in the previous chapter with the risk society thesis (Beck, 2009).

Before oil there was coal. Describing the social and technical conditions of the energy transition to coal and steam power in the early 19th century, sociologist Andreas Malm (2012, 2016) argues that the original impulse to build a society based on the high-energy returns of hydrocarbon fuels was not a spontaneous historical process. Instead, providing documented historical evidence from England of textile production in late 18th and early 19th centuries, Malm argues that the existing infrastructures of water-powered production (i.e. the waterwheel) were sufficient and often cheaper than coal (Ibid). Contra to widespread ideas that the transition to coal/steam power was about the superiority of the energy resource, Malm claims that it was more about social control and a "global quest for cheap and disciplined labor power" (2012, p. 153). From this perspective, more than unleashing unparalleled quantities of physical energy for industrial production, coal power became a lever to consolidate various forms of political and economic power; rather than being about the physical qualities of the energy source itself, it was about social control.

The transition to petroleum as dominant energy source in the 20th century occurred under similar circumstances. Although it emerged at a larger scale than that of coal power, which dominated the 19th century and continues to carry importance today, petroleum did not automatically become a major fuel source. Despite its impressive energetic properties, the petroleum age did not come about as a direct result of oil's utility. When vast, new petroleum reserves were first tapped in the early to mid-20th century—primarily in the United States and later in the Middle-East—supply far outstripped demand.[26] Consumers did not want or need oil. In response to this situation of petroleum overproduction, Mitchell (2011) argues that in the early 20th century, global powers created markets for the planet's overabundant oil resources by popularizing modern consumer lifestyles and petroleum-powered automobiles. Oil and fossil fuels became central to high-energy, high-technology modern civilization, thereby cementing the now global supply chain's dependence on fossil energy. Underpinning those cultural and political norms are material and economic dynamics that keep the world dependent on fossil fuels; a dependence that is fostered despite the decline of easily extractable petroleum reserves. The world seems bent on exploiting oil to the last drop, no matter how polluting or technologically-challenging the extraction. Unconventional oil is a concrete example of that fossil fuel frenzy.

3.1.2 Unconventional oil and the "extreme" energy transition

The Alberta oil/tar sands are Canada's contribution to the so-called "global revolution of unconventional oil" (Deutch, 2014) a result of the oil industry's rapid transition to new oil production techniques in the first and second decades of the 21st century. In contrast to conventional sources of crude oil that flow spontaneously into a drilled oil well "due to the difference of pressure between the underground and the surface, or with the use of artificial pumps," less accessible reserves are called "unconventional" (Ibid). As Owen and co-authors (2010) explain, unconventional fossil fuels are resources such as oil/tar sands, shale gas or shale oil that were previously unprofitable in terms of producing finished fuel products (such as gasoline, kerosene, and diesel) because of political, technical, and/or economic hurdles. Higher oil prices thus became one important driver for the widespread establishment of "enhanced oil recovery" techniques for unconventional hydrocarbon extraction (Alvarado and Manrique, 2010, p. 1529) such as strip mining, horizontal drilling, hydraulic fracturation, and steam-assisted

[26] This stands in contrast with the global energy mix in 2012, whereby petroleum accounted for 31.4% of supply; this means that, along with coal production which accounted for 29%, and natural gas which stood at 21.3%, about four-fifths of contemporary energy fuels came from non-renewable fossil sources (IEA, 2014).

gravity drainage. For example, steam-assisted gravity drainage involves digging two horizontal wells through deep bitumen reserves; hot steam is pumped through the higher well for several months, thereby melting the heavy, viscous bitumen, at which point it seeps into the lower well and is subsequently pumped out and processed into synthetic crude oil or diluted bitumen (Ibid). These intermediate products are then ready for shipment to refineries for production into finished fuel products and feedstock for the petrochemical industry.

Another 'enhanced oil recovery' technique that has garnered intense opposition is hydraulic fracturation, more popularly known as "fracking" (Mazur, 2014, p. 207). With fracking, a mixture of water, sand, and chemicals—some of which are toxic—are pumped under high pressure into a horizontal well in underground shale rock deposits as a means of releasing previously unobtainable shale oil or gas (Ibid). For the preceding reasons, then, the dualism between 'conventional' and 'unconventional' oil and gas is best seen, rather, as a spectrum reflecting the ease of extractability and the potential for commercialization. The more difficult and resource-intensive the extraction process, the more expensive the production of market-ready fuel commodities becomes. However, to better understand the broader sociological context of unconventional extraction, a more 'ecological' definition is needed, one that encompasses the environmental and social costs.

From the more intricate forms of labor and technology involved to the complex entanglements of land use rights and concessions, capital investment, environmental regulations, and threats of social resistance, tar/oil sands extraction is no easy feat for business. Furthermore, oil extraction bears a potentially costlier burden on the environment and society; a study carried out by climate scientists McGlade and Ekins (2015) affirms that two-thirds of all global oil reserves (and between 85% and 99% of Canadian oil/tar sands) must remain unburned, and buried, in the ground if humanity is to keep global temperatures below the two degrees Celsius breaking point agreed upon at the United Nations Framework Convention on Climate Change (UNFCCC) negotiations in Cancun in 2011. And while the unconventional techniques to extract Canada's bitumen reserves are among the most polluting and energy-intensive hydrocarbons on the planet (Jordaan, 2012), pro-oil advocates defend oil sands as more "ethical" because of Canada's better record on human rights and environment protection, in comparison with members of the Organization of Petroleum Exporting Countries (e.g.: Levant, 2011). Yet, because of their higher carbon intensity and increased environmental impacts, unconventional hydrocarbons aggravate nations' achievements of the UNFCCC's emissions reduction targets.

Because of the higher ecological costs of unconventional exploitation and the lengths to which oil companies will go to extract such resources—particularly when prices are high—Michael Klare (2012) describes them as "tough" energy (p. 24), in contrast with 'conventional' and increasingly scarce sources that flow easily into a drilled oil well. 'Tough' oil's increased health and environmental impacts attracted much criticism in Canada. Author and advocate Maude Barlow denounced the oil/tar sands as the "dirtiest oil"[27] on the planet, comparing the transformed landscapes that overlay the mined bitumen deposits in the Canadian province Alberta to the wasted horrors of Mordor from J.R.R. Tolkien's *Lord of the Rings* (Arrowsmith, 2008).

In addition to ecological concerns, the limited supply of nonrenewable fossil fuel sources is paramount to understanding the role that unconventionals play in the dominant social imaginary that seeks to perpetuate modern consumer lifestyles. Hubbert (1956) famously provided empirical evidence of imminent geophysical limits to global oil supply; but it was not until the late 1990s and early 2000s that the idea flared into public consciousness, amidst fears surrounding energy security and environmental degradation. Peak oil thus became part of a key discourse of environmentalists to reduce oil dependency; some even thought that oil's geophysical scarcity would force civilization to move to cleaner sources of energy (see Transition Town Movement in Hopkins, 2008). Since that time, the availability of unconventional oil completely changed the discourse on peak oil and dashed the hopes for a smooth, socio-technical transition from fossil fuels to renewable energies, at least in the short-term.

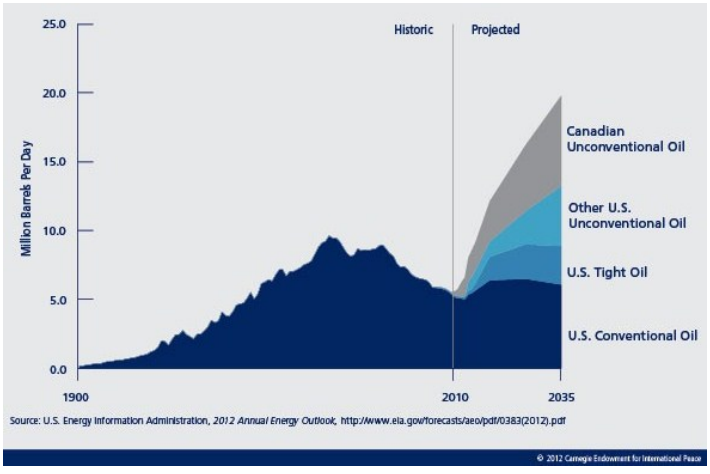

Figure 1- North American Oil Production Potential (Historic and Projected) (Gordon, 2012).

The result, today, is an increasingly politicized and volatile situation regarding energy and environment issues. The Carnegie Endowment for International Peace compiled data from the U.S. Energy Information Administration into a graph (see Figure 1 to the left) to show how the abundance of unconventional oil has come to compensate for declining

[27] Chastko (2010) comments on the phenomenon of environmental groups' framing of oil/tar sands as "the most egregious example of 'dirty oil'" to stimulate public opposition (p. 1).

conventional reserves. Such optimistic oil supply projections help better understand the context for energy politics today and the production, in the second decade of the 21st century, of oil/tar sands. With the commercialization and abundance of previously inaccessible unconventional hydrocarbon reserves, the energy choice in North America was largely one of “Drill, baby, drill” (Hughes, 2013).

Within this context, the advent of extreme oil and gas into the world’s energy mix permitted the pursuit of energy intensive practices beyond the geophysical limits of conventional oil. This is reflected in what sociologist Patricia Widener (2013) calls the “protracted age of oil” (p. 834). John Urry (2013) writes of unconventional oil as "dregs of oil [that] are very difficult and costly to exploit, and… need to come on stream on a vast scale in order to compensate for the decline in easy oil" (p. 103). Yet, the proponents of what MIT professor John Deutch (2014) has called *The Global Revolution of Unconventional Oil* seem confident that oil will dominate global energy supply for decades to come.[28] In the 2000s and 2010s, urges in unconventional energy extraction, owing to changing technology, economics, and governance, amounted to a *de facto* transition to a higher-carbon and more environmentally destructive fuel source. Paradoxically, those production increases came at the same time for calls for a “just and sustainable” or “clean energy” transition within global civil society groups—pleas which have intensified since the People’s Declaration on Climate Change in Copenhagen (Klimaforum09, 2010).

Civil society was not the first to warn of extreme energy. In 2013, researchers working through the University of London’s Human Rights Consortium, Damien Short, Karen Hulme and others, formed the “*Extreme Energy Initiative*,” an academic forum that concentrates on the “extreme methods to secure energy supplies with increasingly severe social and environmental consequences” (www.extremeenergy.org/). Their concerns were not novel. Energy scientists Farrell and Brandt (2006) had warned of the “risks of the [unconventional] oil transition” (p. 1), referring to the unintended negative consequences of producing heavier oils from shale and tar sands. Conventional crude oil production already creates substantial pollution, but the increase in unconventionals further exacerbates those ecological and social costs. Farrell and Brandt write, “Because of the large environmental and security externalities involved, markets alone will not respond to this problem, so government policies to manage the… risks of the oil transition are needed now” (2006, p. 6).

[28] Such statements have faded in optimism since the consequences of low oil prices battered Alberta’s Oil Sands industry, and oil companies

Researchers' warnings went unheeded, and companies drilled hundreds of thousands of new unconventional oil and gas wells across the U.S. Correspondingly, oil sands production in Canada almost quadrupled between 2000 and 2014 (Canadian Association of Petroleum Producers, 2014). Major political and economic factors were behind the upsurge. The next section will review how recent changes in the global economy have underwritten the rise of unconventional fuels in the global energy mix, while solidifying Canada's dependency on the resource extraction sector in ways that reflect the country's overall economic history.

3.2.1 Canada's fossil economy in global context: Primarization, extractivism and the staples trap

The material and social relations that make oil such a precious substance play out around oil sands—a mixture of clay, sand, water and oil that the oil sands industry processes into a highly viscous hydrocarbon substance called bitumen, which is then upgraded to a "synthetic crude oil" to be refined into petroleum and petroleum products (Masliyah et al. 2004, p. 629). Oil sand resources, like other unconventional fossil fuels, were once commercially worthless due to a host of factors including lack of technology, high costs of exploitation relative to lower oil prices, lack of refining capacity, and regulatory prohibitions (Owen et al, 2010). But since the late 1960s and early 70s, Canadian production of bitumen began as a means for the United States (U.S.) to secure a friendly, though expensive, source of oil from a friendly, neighboring country. U.S. demand also came as a response to the supply constraints of the first OPEC (Organization of the Petroleum Exporting Countries) oil crisis (Nikiforuk, 2010). But the commodity was not lucrative until the 2000s, when the U.S. started making efforts to reduce its dependency on foreign oil as oil prices began to rise, fueling the expansion of the oil sands industry in Canada. The success of this strategy peaked in early 2014. In that year, Canada because the world's fifth largest petroleum producer, largely through the sale of bitumen to the U.S. (U.S. Energy Informeckation Administration, 2015).

The conditions of possibility for the sharp increase in unconventional oil production find their origins in the now global economic system. Infrastructural and supply chain requirements, consumer demand, incentives of rising oil prices and national policy responses, or lack thereof, all play a role. In short, a complex set of relations influence the justification for unconventional oil extraction, which essentially seeks to continue dependence on petroleum despite its heavy environmental and economic costs, both to industry and society. However, one trend became obvious in the 2000s and early 2010s. After the bursting of the equity market bubble in 2000 and the deregulation of commodity markets in that same year under the U.S. Commodity Futures Modernization Act, the financialization of commodity trading increased dramatically (United

Nations Conference on Trade and Development, 2011, p.115), contributing to a long, volatile, and wide-ranging commodity boom between 2002 and mid-2008 (Moore et al., 2011, p. 43).

In response to the increased demand, Canadian companies increased resource extraction, particularly in the Alberta Oil Sands. Sociologist Eric Pineault describes Canada's emphasis on resource extraction in the 2000s and early 2010s as a "(re)primarization" of the economy (2014, 2013). Referring to the renewal and expansion of mineral and hydrocarbon extraction in fiscal decisions and economic activities (Lee et al., 2012), Pineault (2013) argues that (re)primarization is dominated by four factors. First, Pineault suggests that demand for primary commodities from emerging economies drives global surges in investment in resource extraction. Second, profit-oriented interests to accelerate resource extraction projects can undermine government-imposed regulations that moderate the social and environmental impacts. Third, mineral and fossil fuel resources are non-renewable and limited in quantity within Earth's crust, and as resources are depleted and become scarcer, prices tend to rise—though do not always because there are competing factors involved.[29]

The final element in Pineault's fourfold analysis of the primarization of resource-rich national economies is financialization.[30] This may be puzzling. After all, Foster and McChesney (2012) write of general world economic trends involving a "shift of the center of gravity of economic activities increasingly from [material] production (and production-related services) to speculative finance" since the 1970s (p. 18). Yet, financialization of the commodity trade has played a major role in political and economic pressures to extract natural resources, including oil. Labban (2014) observes that financialization decreases neither extraction nor material commodity production; nor does it relieve economic pressures on land and ecosystems, as some scholars have argued (e.g. Van Treeck, 2009). Instead, financialization has tended to reinforce hydrocarbon resource extraction, a link that Altvater (2007) evokes with the term "fossil capitalism" (p. 37). For example, Pineault and L'Italien (2012) point out that North America's largest sovereign wealth fund, Quebec's *Caisse de dépôt et placement*, increased investment in the oil/tar sands up to 5.42 billion dollars since the 2008 financial crisis. Instead of ushering the

[29] Neoclassical economists have written about a tendency for commodity prices to rise when the resource required to produce the commodity is scarce, or "true scarcity value" (Georgescu-Roegen, 1979, p. 99). If firms were to follow this purely neoclassical economics, they would have a strong incentive to extract every drop of oil from the planet.

[30] Concerning the links between resource extraction and financialization, one also can look to the billions of dollars invested in North American pipeline projects by Export Development Canada (Ghomeshi and Zalik, 2013).

world into an “immaterial service economy” as some have argued (see Friedrichs, 2013, p. 10), it appears that finance capital is increasing pressures to extract natural resources and transform biodiverse landscapes into monoculture plantations, or in the most extreme cases, wastelands.[31]

Through the preceding factors of (re)primarization (Pineault, 2013), resource extraction once again became a dominant mode of national economic development in core countries like Canada. But it didn’t happen automatically; there is an important political story beneath the surface. Resource extraction offered a way out of what McNally (2009) writes was a “crisis in financial structures specific to neoliberalism” that generated a profound and prolonged “global slump” (p. 35). When the post-2008 world was characterized by austerity, less government spending and a reluctant investment community, the resource sector became one of a few remaining ‘safe’ havens for finance capital (Pineault, 2013).

Hence, the context of financialization, economic primarization and capital overaccumulation led to what Gudynas (2010) and Veltmeyer and Bowles (2014) call “extractivism.”[32] An official policy response from governments for the “problem of absorbing capital surpluses” (Harvey, 2007, p.57), I theorize extractivism as a goal to address the legislative, infrastructural, political, and social obstructions to “the spatial movement of capital” (Ibid) by attracting investments in the resource sector. In that sense, extractivism was a hedge against the failures of neoliberalism to deliver on its promises of perpetual economic growth. At the same time, neoliberalism forced regulatory and governance changes that provided the conditions of possibility for the emergence of extractivism. After cutting subsidies to municipalities, health, and education, the neoliberal state presented resource extraction as a solution to reduced public revenues; as former Quebec Minister of Natural Resources Nathalie Normandeau said regarding the need to exploit shale gas, “To preserve our health and education systems, we must make money” (Radio-Canada, 2010, my translation). Extraction was thus presented as a means of rescuing

[31] Since oil prices decreased drastically beginning in 2014, there are some signs that institutional investors may be beginning to shift their investment strategy. Pineault speculates that such trends might account for the *Caisse de depot et placement’*s announcement of an ambitious new light rail project in Montreal (personal communication; for information on the electric train, see Shingler and Rukavina, 2016). Furthermore, a report by a Canadian governmental think-tank suggested that global fossil fuel production could decrease much faster than previously expected, concluding that "[i]t is increasingly plausible to foresee a future in which cheap renewable electricity becomes the world’s primary power source and fossil fuels are relegated to a minority status " (Policy Horizons Canada, 2016, p. 16).

[32] Extractivism has also become an important concept in social movements in much the same neoliberalism did in the late 90s and 2000s (Veltmeyer and Bowles, 2014).

the economy and publicly funded services from the shocks of neoliberalism. Because of that link, it is impractical to isolate neoliberalism from extractivism, but instead we must think of the two processes as being intimately linked; hence the term “neoliberal extractivism” (Fast, 2014, p. 31). In that sense, I theorize neoliberal extractivism as a collective, political project of championing primary resource sector activities as the chief drivers of the national economy and the principal generators of capitalist wealth for investors.

3.2.2 A Northern Petro-state? Canada’s resource curse and new staples trap

Although the oil sands industry has become increasingly important to the national economy in recent years, Canada’s turn to natural resources as the primary mode of economic development is nothing new. Primarization and its extractivist political response echo the country’s economic history, which has tended to feature a heavy reliance on the “exploitation of staple products” for export (Innis, 1999, p. 385). Much of the territory claimed by the sovereign nation of Canada has historically served as a resource frontier from which colonial powers and business interests have drawn to produce commodities of fur, wheat, timber, cod, and now bitumen to sell to foreign (though primarily U.S.) markets. Economic historian Harold Innis (1930/1999) defines the over-reliance on a staple-led development model based on the export of raw materials as the “staples trap” (p. 385). The word ‘trap’ is appropriate to describe how extractivist policies make the economy less flexible and more susceptible to volatile commodity booms, financial speculation, natural disasters, or other calamities (Drache, 2013, p. 3).

Adapting Innis’ analysis to the 21st century, Drache (2013) argues that the contemporary staples trap is more complex than it was in the 19th and early-to-mid 20th centuries, when commercial dependence on U.S. markets was the determining factor of the Canadian economy. To address that difference, Klassen (2009) writes that since the 1970s “economic integration created a collective imperialism through which senior and junior partners dominated the world economy” (p. 168). The commodification of bitumen resources helped lessen Canada’s traditional dependency on the U.S. by attracting other global investors, thereby further driving oil/tar sands expansion (Klassen, 2009, p. 185). One prominent example of such global investment involved the Chinese National Offshore Oil Corporation’s acquisition of Canadian oil company Nexen Inc. in 2012 (Reitman, 2012). The flood of capital to oil sands projects provided Canada with an opportunity to carve out a stronger niche within the global capitalist economy. In so doing, Canada asserted itself as an increasingly important, though still junior, player within the geopolitical game of collective imperialism.

Since the recent downturn in oil prices beginning in late 2014, Canada once again experienced blowback from the staples trap that has so often marked the country’s history. In

2013, NGO critics had anticipated the potential effects of volatile oil prices when they wrote that the oil sands put the Albertan and Canadian economies "in a precarious and unpredictable position" (Dobson et al., 2013). The sharp contours of the "carbon trap" (Ibid) became apparent with the rapid decrease in crude oil prices. As tens of thousands of people lost their jobs in the oil and gas industry in Alberta in 2015 and the unemployment rate rose from 4.4 to 7.1 percent in the space of a year, the Calgary Herald described the situation as going "from bad to worse" (Ewart, 2015). One solution to addressing the effects of priomarization involves crafting social and economic policy that mitigates the impacts of a rigid resource economy.

Such a question has precedents. Farnsworth (2012) argues that the Canadian government addressed the structural rigidities of the staples trap in the postwar era by reconfiguring political economic arrangements in line with Keynesian economics and shifting to a "coordinated market economy" (p. 135). To balance export-led economic growth and redistribute wealth, government officials elaborated new public polices and altered public spending patterns (Drache, 2013, p. 3). The result was an assortment of governmental programs and services such as Medicare, the federal old-age pension plan, and various public works projects. However, the Canadian government, under the leadership of Progressive Conservative Prime Minister Mulroney, initiated massive cutbacks of social and redistributive programs and policies in the 1980s (Ibid). Those cutbacks intensified the rolling back of welfare state policies in Canada, thus limiting the government's capacity to row and steer the economy away from crisis. Today, with the political conversation dominated by free market-oriented solutions, it has become difficult to propose alternatives to extractivism and austerity, thereby further reinforcing carbon-intensive development choices like the oil sands.

Canadian thus extractivism has deep roots in the country's history. Alfred and Corntassel (2005) write that Canada has a long tradition of "colonial dispossession" of First Nations communities and territories for the purposes of resource extraction, and that this project is ongoing (p. 612). Henry Veltmeyer (2013) points to the Alberta Oil Sands as evidence of Canada's continuing dispossession of native peoples and lands through a process of "extractive imperialism," a form of the country's historical legacy of settler colonialism. These processes increasingly intersect with contemporary capitalist accumulation and competition. And the logic of extractivist imperialism does not affect native people and peripheral territories alone; Nature Quebec director, Christian Simard complained that tar sands pipelines were an attempt to "forc[e] Quebec to get down on its knees before Albertan oil" (Interview,[33] November 24, 2014).

[33] "…forçant le Québec à se mettre à genou devant le pétrole de l'Alberta."

As re-primarization affects the national economies of resource-rich nations, politicians and investors drive forward extractivist policies and projects as a means of remaining competitive within global capitalism, sometimes to the detriment of citizens' interests and well-being.

Listening to market signals before social or ecological cues is a symptom of a deep organizational flaw of modern capitalism that I theorized in the previous chapter using the 'metabolic rift' concept (Bellamy-Foster et al., 2011). Within nations that have access to large stores of natural resources, the effects of resource commodification can be nefarious; countless scholars have referred to this as the "resource curse" (see Papyrakis, 2016, p. 1). Political scientist Teri Lynn Karl (1999) argues that the 'resource curse' puts nation-states at risk of becoming "petro-states" when they begin to centralize political power, exhibit "strong networks of complicity between public and private sector actors," and replace domestic taxation revenue with income from oil profits (p. 34). The 'resource curse' effect, then, can lead to "'petrolization', a process by which states become dependent on oil exports and their polities develop an addiction to petrodollars" (Karl, 1999, p. 46). When the proportion of rents that a government receives for granting corporate access to natural resources increases relative to tax revenues from the general population, the result can be a decrease in government accountability to citizens and increased obligations to the companies that pay rents. Political scientists Busse and Gröning (2013) conclude that "exports of natural resources have, above all, led to an increase in corruption" (p. 1).

While studies on the resource curse tended to focus on so-called 'developing countries' in the Global South, within the context of pipelines and oil sands expansion in Canada, there was a mounting sentiment, during my fieldwork, that Canada's democratic institutions were not entirely sheltered from the effects of the resource curse. Director of the *AQLPA,* Andre Belisle, explained, "Since 2006… the government cuts environment funding, gets rid of civil servants, gets rid of funding for research scientists [and] gets rids of environmental organizations and 'infrastructures' pretty much all over Canada. So, people know it—all that put together, people realize we're veering into a petro-state!" (Interview, January 17, 2015). In Canada, particularly under the Harper government, political power was increasingly concentrated in the Prime Minister's office and—as will be discussed in the next chapter—the influence of petroleum interests converged there. As petrolization influenced the government's policy choices, finding markets for Canadian bitumen became top priority. For that to happen, pipeline projects were of paramount importance.

3.3 Pipeline Controversies

Oil and gas pipelines once considered the harbingers of modernity and progress are today objects of public controversy. Nothing better exemplifies this tendency than TransCanada Corporation's (TCC) Keystone XL which, while not the subject of concern in this thesis, provides an exemplary case of pipeline politics. U.S. president Barack Obama justified his historic rejection of the Keystone XL pipeline in November 2015 by an appeal that the U.S. become a "global leader when it comes to taking serious action to fight climate change" (Washington Post, 2015). The Keystone XL began as a little-known petroleum infrastructure project linking the Alberta Oil Sands to the U.S. and world markets. Since then, the pipeline became a powerful symbol, leveraged by environmental groups, to push for policy action on climate change and greater environmental oversight of infrastructure projects. Stalled for seven years, Obama's decision represents the first time an oil pipeline project was rejected for its climate impacts (Davenport, 2015).

However, TransCanada's Keystone XL did not represent the first time a pipeline project caused widespread tension in North America. The same company's natural gas pipeline, the Mainline pipeline built in the 1950s to transport cheap gas from Alberta to Eastern Canada, solicited major controversy at the time of its proposal, and was a key factor in the defeat of the twenty-two-year ruling Liberal party. At the time of Canada's original "pipeline debate" in 1956, the climate impacts of fossil fuels were unknown, and thus were not a point of contention for opposing groups (Thorburn, 1957). Contestation over the Mainline pipeline was hardly framed in the language of 'climate change'. Instead, the discord revolved around infrastructure financing, parliamentary procedure and fear of American domination of the Canadian economy (CBC Television, 1973). Ultimately, the TransCanada Mainline pipeline went through, and today, the infrastructure is attracting intense scrutiny from environmental groups, activists, and indigenous people because of the company's plans to convert it into a conduit for the transportation of unconventional crude oil from the oil sands. If the project comes into fruition, the Mainline would form two-thirds of the length of TransCanada's new and controversial Energy East pipeline.

3.3.1 The Energy East Pipeline

Describing itself as a "leading energy infrastructure company," the TransCanada Corporation (TCC) concentrates on pipelines and power generation where it can "have or can develop a significant competitive

Figure 2 : TransCanada's Energy East Pipeline. SOURCE: http://www.energyeastpipeline.com/about-2/route-

advantage" to maximize shareholder value (TransCanada, 2014a). Oil sands has become an integral part of the company's investment portfolio, and pipeline construction and operation among their primary activities. If finished, TransCanada's 4,600-kilometer (km) Energy East pipeline will pump up to 1.1 million barrels of oil sands crude a day to refineries and oil ports in Eastern Canada (www.energyeastpipeline.com) destined for foreign and domestic consumption. Based on estimates by the global financial services firm Deloitte (2013), the project could deliver billions of dollars of tax revenue to Canada at all levels of government. Such numbers help explain the project's appeal to governments whose revenue bases feature an increasing proportion of oil rents.

In 2014, 97% of all Canadian bitumen exports were destined for American refineries (Natural Resources Canada, 2016). However, the U.S. has sharply increased oil and gas production from shale hydrocarbons in recent years. As unconventional resources were reclassified as commercial fossil fuel reserves, the U.S. became, once again—and after more than forty years of dependence on foreign supply—the world's top oil producer. (International Energy Agency, 2012). Such news did not bode well for the expensive and heavy oil sands crude coming from Canada. Dependence on US markets at a time when that country became the world's largest oil producer rendered the Canadian oil/tar sands industry vulnerable. Declining demand in the U.S. thus drives political and economic support for export pipeline projects like Energy East. Diversifying markets beyond the U.S. would allow the oil sands industry to increase their competitive advantage within global oil markets, making oil sands companies less dependent on U.S. markets.

Analysts report that oil sands companies have lost money by selling their product to the U.S. instead of international markets where they might fetch higher prices (Hoberg, 2013, p. 3). The price reduction on oil sands crude prompted Canadian Minister of Natural Resources Joe Oliver to cite a Canadian International Bank of Commerce (CIBC) report underscoring oil industry losses of fifty million dollars a day resulting from the lack of sale of Canadian bitumen on world markets (Marsden, 2013). The CIBC report went on to observe that the U.S. market was approaching 'peak oil demand': the moment after which aggregate demand for the commodity begins to fall. For the U.S., peak oil demand was due not only to increased shale oil production but also to improved automobile fuel efficiency standards and increased renewable energy production (Ibid). Hence, declining U.S. demand for Canadian bitumen further exacerbated the industry's need to reach new markets to obtain higher prices. The obvious solution was to ship bitumen to oil seaports for tanker transport. But, as emphasized by the CIBC report (2013), "a

lack of infrastructure is preventing Canadians from maximizing their potential benefits in energy markets" (p. 1). The conclusion: more pipelines and rail capacity were needed.

The industry's infrastructural predicament was called the problem of "access to tidewater" because selling to international markets other than the U.S. from Canada requires access to oil ports and tanker transport hubs along the coast (Hoberg, 2013). For bitumen to reach 'tidewater' from land-locked Alberta, a pipeline to the Pacific coast was the geographically closest option: the Northern Gateway project. Shipping oil to the Gulf of Mexico through the U.S. with the Keystone XL project was another option, as U.S. companies, rather than Canadian ones, had upgraded or built significantly more refineries to process heavy crudes like bitumen in the 2000s (Parkinson, 2008). However, political and social opposition to the Northern Gateway and Keystone XL pipeline projects to the Pacific and Gulf of Mexico coasts, respectively, forced the oil/tar sands industry in Canada to look for other export avenues.

The inversion of Enbridge's "Line 9," a pipeline traversing Ontario and Quebec, was one way out of the problem. The plan involved the flow reversal of a pipeline built in 1976 that had been transporting foreign crude oil to Ontario and Quebec since the 1990s, and before that had transported Western Canadian oil from Ontario to Montreal (Enbridge, Inc., 2016). In the face of social resistance and concerns about risk (see Grant, 2014), the national energy regulator nonetheless approved the project in 2015 (Porter, 2015). Line 9's maximum flow capacity of 300,000 barrels of diluted bitumen or synthetic crude a day would give Quebec access to Albertan oil sands crude for the first time, thereby meeting Quebec's domestic demand for oil (Hughes, 2016, p. 31). At the same time, Line 9 was not without resistance. On the first day that Line 9 went into operation and began pumping crude oil from Tar Sands to Quebec, in a protest act a group of three activists closed the emergency shut-off valve of the pipeline at the border between Ontario and Quebec, and then chained themselves to it (Radio-Canada, 2015). The act received very moderate media coverage, but in the next year, it was copied in Ontario and the U.S. by multiple grassroots groups looking to halt tar sands production and keep fossil fuels in the ground.[34]

Yet, still facing significant bitumen production surpluses, and concerned about price reductions, Alberta's oil sands industry was in search of options to export their product to world markets. To increase bitumen export capacity, early support for a pipeline project to ship oil

[34] Anishinaabe youth activist Vanessa Gray and two others manually shut down Line 9 in Ontario in December 2015, a few weeks after the first shut down in Quebec (Curtis, 2016). Then, in October 2016, climate activists in the U.S. coordinated together to close off five tar sands pipelines in the same manner of Gray's action (Lewis and Cryderman, 2016).

sands crude from Alberta to Quebec and New Brunswick, and beyond to global markets, surfaced in December 2011 in an op-ed in the Globe and Mail—a major Canadian newspaper—by former prime ministerial advisors, Burney and Goldenberg (2011). Journalist Joyce Nelson (2014) reported that the project received the tacit approval of global elites in 2012 during a Bilderberg meeting[35] attended by seven senior members of former Canadian Prime Minister Stephen Harper's staff. The solution to the oil industry's problem of the social and political obstacles to Keystone XL and Northern Gateway was to be found in economic deficits plaguing TransCanada's Mainline natural gas pipeline. With those issues in mind, former New Brunswick premier Frank McKenna began lobbying for the repurposing TransCanada's Mainline natural gas pipeline into the Energy East oil sands pipeline (McCarthy, 2013).

When the TransCanada Mainline was built in the 1950s, it was the longest gas pipeline on the planet, transporting natural gas from Western Canada to rapidly growing cities in Eastern North America in the booming postwar years (Thorburn, 1957). However, in more recent years, decreased gas transport in the 2000s made the gas line less profitable, thereby presenting an opportunity to revamp the existing gas pipeline for crude oil transport—a less costly enterprise than building new infrastructure altogether. Two factors contributed to the waning profitability of natural gas transport on the Mainline. First, on the supply side, massive amounts of energy from natural gas are required to process and upgrade[36] oil sands in Alberta. With oil sands production increasing, Albertan consumption of its own natural gas increased, too, meaning that gas transport to eastern markets diminished significantly. And second, on the demand side, U.S. shale gas production transformed the eastern U.S. from an importer of natural gas into an exporter of the product, thereby lessening eastern U.S. demand for natural gas from western Canada. The way in which natural gas exports to Canada changed because of shale gas extraction in the Northeast U.S. illustrates this point; shale gas exports to Canada began in 2011, and by 2014, the U.S. became a net exporter of shale gas to Eastern Canada (U.S. Energy Information Administration, 2015). With cheap gas from the Eastern U.S. flooding the market, demand for Albertan natural gas in Eastern Canada began to decline.

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[35] See Carroll et al. (2010) for more on the influence of "transnational policy-planning" (p. 501) networks, like the Bilderberg group, where "elite interlocks" (Ibid) converge on policy priorities and directions.

[36] Much of Canadian bitumen is not refined into petroleum in Canada. Instead, the industry "upgrades" oil sands into intermediate products such as diluted bitumen (dilbit) or synthetic bitumen (synbit) that are suitable for pipeline transmission and processing by heavy crude oil refineries (Parkinson, 2008, p. 20).

The two issues at hand, shale gas market demand and supply, then resulted in what the industry and regulators labeled the TransCanada Mainline's "underutilized capacity" (TransCanada, 2014a). For the pipeline industry, the problem of under-utilized capacity became a solution for the mounting political obstacles surrounding the construction of westbound (i.e.: Northern Gateway) and southbound (i.e.: Keystone XL) pipelines, permitting oil sands companies to diversify export markets. Federal New Democrat Party leader Tom Mulcair would later qualify the Energy East project as "win-win" for producers and Canadians because of increased revenues and potentially more jobs from refining the oil sands crude in Eastern Canada (Bryden, 2014). The case seemed strong, especially in Canada where oil had come to occupy a key place in the economy through the primarization tendencies described earlier.

Nevertheless, the socio-ecological contradictions of capitalist production affected TransCanada's internal governance and conditioned the emerging responses of social resistance. Former TransCanada employee and whistleblower Evan Vokes, whose allegations in 2012 of the company's "substandard practices" were confirmed by the National Energy Board in terms of "regulatory noncompliance," points out how company management affected their ability to comply with regulations (CBC News, 2014b). Vokes emphasizes that the high-level decision-makers were not engineers or environmental scientists, but accountants and managers for whom "all the bonuses… are tied to financial performance" (Council of Canadians, 2015a). Hence, the domination of capitalist imperatives of accumulation helps explain how a company can promote and sustain oil/tar sands production in the face of deepening socio-ecological contradictions that present a set of long-term problems for governance. As a growing number of voices from civil society began opposing the pipeline, they highlighted those concerns. The next section explores the emergence of these new movements in Quebec in their defense against the threats of pipelines backed by regimes of neoliberal extractivism.

3.4.1 "Keep it in the ground!": A brief sketch of resistance to extreme energies in Quebec and North America

In a study of social resistance to fracked shale gas in the U.S., Willow (2014) proposes that new forms of extraction catalyzed a "new politics of environmental degradation" (p. 237). Expanding the sphere of environmental dispossession to traditionally white farming communities, unconventional extraction led to the disempowerment and vulnerability of communities in a way reminiscent of, though assuredly different from, the colonization of indigenous peoples (Willow, 2014). Often, when that dispossession is resisted by social movements, activists center around oil's materiality itself. As a Quebecois anti-pipeline activist said, "All non-conventional oil must remain underground" (Interview, January 28, 2015). The higher social and ecological costs of

unconventional extraction thus informed the emergence of new, bottom-up resistance struggles at the centers of industrial civilization. The global race for natural resources exerts pressure on lands not historically used for mineral or fossil fuel extraction; this pressure has sparked a new surge in environmental attitudes and eco-political discourses. But these attitudes move beyond the 20th century environmental movement's aims of saving 'nature' and "reclaiming paradise" (see McCormick, 1991). As the Argentinian sociologist Maristella Svampa (2015) writes, elevated threats of environmental contamination and climate destabilization, stemming from extractivism, are leading to "new forms of mobilization and citizen participation centered in the defense of the natural commons, biodiversity and the environment" (p. 52-53). The phenomenon is not relegated to Latin America; across North America, citizen groups—sometimes but not always working in concert with established environmental organizations—are emerging in defense of the land, climate, and waters. Annette Klapstein, a 64-year-old American woman who, along with a handful of other people, manually shut down five oil sands sands pipelines from Canada to the U.S. in October 2016, explained her motives as follows

> I have come to believe that our current economic and political system is a death sentence to life on earth, and that I must do everything in my power to replace these systems with cooperative, just, equitable and love-centered ways of living together (DemocracyNow, 2016b).

Similar hopes and fear motivated the anti-pipeline action of citizens in Quebec. In the face of elevated environmental threats, a Quebecois man in his 50s who had also manually closed, and then locked himself to, the Line 9 oil sands pipeline the year earlier, said,

> I cannot just stand there with folded arms. As citizen, I felt called… to contribute the best of my person… Even if we can't stop tomorrow all the projects, at least we can realize that we are heading toward a dead-end, straight into a wall, and we must absolutely start to think about finding alternative solutions (Interview,[37] December 15, 2014).

In Quebec, prior to pipelines there was shale gas, reflecting some of the same concerns about risk of extreme energies and the capitalist imperatives that directed their extraction. The "fracktivists" (Crowe et al., 2015, p. 442) opposed hydraulic fracturation, or "fracking" (Ibid, p. 450), for shale gas and oil—one of the many risky unconventional extraction techniques that have risen to prominence in recent years. Drawing on their case study of citizen and

[37] "Je ne peux pas rester là les bras croisés, tant que citoyen je me sentais interpellé… [à] contribuer, au mieux de ma personne… Alors même si on ne peut pas arrêter demain matin l'ensemble de tous les projets, mais du moins de prendre conscience que on s'en va vers un cul-de-sac, qu'on s'en va vers un mur, et qu'il faut absolument commencer à penser à trouver des solutions alternatives."

environmentalist resistance against fracking in Quebec, Batelier and Sauvé (2011) argue that citizens have become more sensitive to social and environmental problems, and demand greater corporate transparency and a larger role in decisions that affect them (Batelier and Sauvé, 2011). In their opposition to fracking, ctizens from various professional backgrounds engaged with the scientific literature, NGO reports, and media coverage about shale gas, and in so doing, mobilized popular opinion and critical knowledges to bolster their resistance. This translated into massive public participation in the government's consultation and review forums, resulting in the Quebec government calling for a temporary moratorium on fracking for shale gas in the Saint-Lawrence Valley (Ibid). In many ways, Quebec's instance of fracktivism set the social and political scenes for subsequent anti-fossil fuel struggles.

Struggles against pipelines took, as their primary object, the infrastructure that secures and ensures the steady flow of 'dirty' crude oil. As one citizen activist from the *STOP Oléoduc* network said, "With climate change, yes, we have no choice but to reduce our dependency on oil, and it's certain that this happens primarily by blocking tar sands expansion and blocking the pipeline" (Interview,[38] December 12, 2014). Participants in the anti-pipeline movement resisted using a variety of means, including internet research of the impacts of unconventional extraction, organizing rallies, public conferences, and environmental film screenings. For example, the grassroots campaign *Coule pas chez nous*, initiated by members of the *STOP Oléoduc* network, published documentation for landowners whose properties were to be traversed by the pipeline, which included information about their rights and the rights of pipeline companies (Coule pas chez nous, 2016). For municipalities, *Coule pas chez nous* provided templates of new municipal regulations regarding the installation and exploitation of pipelines, as well as making available information about municipal resolutions such as that passed by the town council of Lanoraie, which "categorically oppose[d] and refusing" the Energy East pipeline (Municipalité de Lanoraie, 2014, p. 2). Such examples show the various levels at which anti-pipeline activism operates.

Resistance to pipelines has thus mediated new forms of climate politics, while also leading to a resurgence of civil disobedience and peaceful direct actions. Examples of such actions are given throughout this thesis; more radical actions included protestors' manual shutdown of oils sands pipeline valves across North America on several occasions, including in Quebec, Ontario and in the U.S. near the Canadian border (see DemocracyNow, 2016b and Radio-Canada,

[38] "…coté changements climatiques oui on n'a pas de choix de réduire notre dépendance au pétrole. Et, c'est sûr que ça passe premièrement par bloquer l'expansion des sables bitumineux et bloquer le pipeline."

2015). Whereas politicians negatively label far less disruptive acts undertaken by environmental groups to block pipelines as "radical" (e.g. Natural Resources Canada, 2012b, para. 3), protestors engaging in civil disobedience began re-branding themselves as "land defenders" and "water protectors" in alternative media and social movement discourse; a discursive switch that gained prominence after the research phase of this project with the Dakota Access Pipeline protests in the United States (DemocracyNow, 2016a).

While resistance against pipelines sometimes veered toward civil disobedience and sabotage, most actions were of a more moderate quality. Anti-pipeline advocates stacked and sometimes disrupted government consultations, publicizing stories of fossil fuel-related catastrophes on social media and joining public demonstrations with environmental groups and other fossil fuel critics. Since TransCanada publicly announced its Energy East pipeline plans in early 2014, multiple groups, galvanizing around the above-mentioned resistance strategies, joined in on refusing the project. Prominent examples of social actors' opposition to, or at least stinging criticism of, Energy East included: Quebec's only farmers' union, the *Union des producteurs agricoles* (UPA);[39] the eighty-three mayors of the Montreal Metropolitan Community (CMM);[40] the forty-three Chiefs of the Assembly of First Nations Quebec-Labrador;[41] and Quebec's two largest labor unions, the *Confédération des syndicats nationaux* (CSN)[42] and the *Fédération des travailleurs et travailleueses du Québec* (FTQ)[43]—though the latter did not include the FTQ-Construction section, which supported the pipeline in spite of a broader anti-Energy East position within the Quebec labor movement.[44] Resistant ENGOs were listed in chapter one. These dissenting groups emerged against a backdrop of sharply divided public opinion, with a modest majority of Quebeckers against the Energy East pipeline. In Fall 2015, one poll, sponsored by Nature Quebec, Équiterre, Greenpeace, and the David Suzuki Foundation, estimated that 57% of Quebeckers opposed the Energy East pipeline (Corbeil, 2015). A survey conducted a year earlier by researchers had appraised the rate of opposition in Quebec at 50% (Martin-Morin et al., 2015).

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[39] https://www.upa.qc.ca/wpfb_filepage/memoire-upa_cmm-oleoduc-energie-est_2015-09-08-pdf/

[40] See De Souza and Mandel, 2016.

[41] http://www.apnql-afnql.com/en/actualites/pdf/comm-2016-06-15.pdf

[42] https://www.csn.qc.ca/2016-04-20_memoire_energieest_csn/

[43] http://ftq.qc.ca/wp-content/uploads/2016/04/Memoire-FTQ-Energie-Est-20-avril2016.pdf

[44] http://ftqconstruction.org/la-ftq-construction-se-joint-a-une-coalition-en-appui-au-projet-energie-est/

3.4.2 The emergence of anti-pipeline climate politics through resistance to the 'carbon lock-in'

This chapter has created the framework for an historicized understanding of how multiple concerns and interests have begun to converge around oil pipelines, and particularly those pipelines that transport 'unconventional hydrocarbons'. Anti-pipeline groups feared risks from groundwater pollution, air pollution and higher toxic loads that could impact human health as well as ecosystem functions. Furthermore, there were concerns of negligence of First Nations rights and treaties in Canada, particularly regarding land claims and cultural survival. Many concerns underlined the economic, political, and social threats perceived from carbon lock-in generally and pipelines specifically. But, as alluded to previously, the fight against tar sands pipelines sought to raise questions of appropriate governance in a warming world. As Christian Simard, director of the environmental non-governmental organization (ENGO) *Nature Quebec,* explained, "If… we succeed in rejecting the oil from the tar sands, we can have a deeper debate about society and the carbon economy" (Interview,[45] November 24, 2014). In that way, climate change was of central concern in the pipeline debate.

Essentially an increase in the concentration of heat-trapping greenhouse gases in the atmosphere due to fossil fuel combustion and other changes in land use patterns, climate change refers to the destabilization and modification of Earth's climate patterns, which are already having severe consequences on human development and the environment. For many environmentalists, blocking pipeline construction is the single most effective way to prevent the extraction and combustion of massive fossil fuel deposits, and in the case, such resistance has targeted Canadian pipelines and, notably, oil sands. Because of the contribution of the oil/tar sands to climate change, Greenpeace has dubbed bitumen "the world's biggest carbon bomb" (in Weyler, 2011). Protesting pipelines has become a tactic for "keeping fossil fuels in the ground" and shifting to a "fossil free" economy (see 350.org, 2016).

Through resistance to pipelines, environmentalists sought to voice the need for establishing an appropriate governance for a warming climate that is respectful of local authorities and socio-ecological integrity. For many, pipeline development was anything but respectful. Karel Mayrand (2014), Director of the David Suzuki Foundation in Quebec, denounced the Energy East pipeline as a plan to transform of Quebec into a "*plaque tournante"* (hub) of "petroleum export in North America" (Mayrand, 2014). Similarly, Christian Simard labeled pipeline projects in Quebec

[45] "Si par exemple on réussit à rejeter le pétrole des sables bitumineux, on peut avoir un débat plus en profondeur sur la société et l'économie du carbone."

as a form of “neo-colonialism” (Interview, November 24, 2014). Over the course of this research, the oppositional attitudes toward Energy East, articulated by Mayrand and Simard, were echoed across the province. The *Parti Québécois* (PQ), a nationalist political party in Quebec, took a public position against the pipeline in June 2015 (Robillard, 2015). To explain the tensions between federal and provincial jurisdictions in the pipeline matter, a lawyer associated with the environmental movement explained that

> TransCanada and the federal government are always taking the position that federal law overrules everything when it comes to pipelines, because it's a federal undertaking and interprovincial. Whereas we take the position, and we believe there is jurisprudence existing in this country, is that unless you have a clear conflict between federal and provincial law, both apply on environmental matters (Interview, January 9, 2015).

Karel Mayrand, Director of the David Suzuki Foundation Quebec, further clarified that “the Quebec government couldn’t say ‘I will completely stop the pipeline,’ but it can establish conditions for the pipeline on the basis of its own environmental laws” (Interview,[46] December 4, 2014). In November 2014 (after the first public battle against Energy East described in chapter four involving the building of a pipeline marine terminal in endangered beluga whale habitat), the provincial Minister of Environment issued seven conditions for TransCanada to respect, including strict environmental assessment, emergency safety standards and community acceptability (Radio-Canada, 2014). While vague and lacking specific criteria for proper assessment, these conditions helped to quell the growing public disgruntlement about TransCanada’s port and pipeline projects, as well as enable the provincial government to negotiate better terms for an increasingly controversial project.

Since that time, the official opposition *Parti Québécois* party members have opted for a hard stance against Energy East; this has included environment critic Sylvain Gaudreault, who publicly stated that, even if the pipeline was to transport a substance as innocuous as “Strawberry Quik,” the party would still be opposed (in Boivin, 2016). The statement shares traits with a common nationalist strategy in Quebec “to mobilize popular support for substantial changes… to the constitutional status quo in Canada (Meadwell, 1993, p. 204). While certainly a motivating factor in anti-Energy East stances, the larger Energy East debate nonetheless moves beyond Quebec nationalist strategies of opposing federal Canadian economic projects and social programs to achieve political or economic gain.

[46] “Le gouvernement du Québec pourrait pas dire: ‘J'arrête le pipeline complétement.’ Mais, il peut fixer des conditions sur la base de ses propres lois environnementales au pipeline.”

From the perspectives of resistant citizens and civil society groups, motivations are somewhat more complex. In their analysis of anti-fracking documents from the shale gas protests in Quebec, Dufour et al. (2015) suggest that citizens engage in resistance against extractive industries as a "means to compensate for the lack of institutional opportunities in the context of developments that potentially threaten their lives and livelihoods" (p. 129). Leah Horowitz (2011) explains that neoliberalization and the globalization of trade has diminished the power of national governments, making it "more difficult for angry citizens to obtain a voice" (p. 4).

Considering these dynamics, and drawing on my own research into pipeline resistance in Quebec, I argue that citizen politicization is not limited to immediate, material threats to people or the environment, but also broadly linked to the failure of institutions of governance to protect citizens' environments and health. In that vacuum, where authorities are less caring of society and ecologies, citizens are more likely to take political action and struggle against pipelines such as Energy East.

In sum, considering the catastrophic changes to the earth system wrought by fossil fuels, a more sober and restrained use of high carbon fuels has become necessary, something scholars and experts call "decarbonization" (Sun, 2005; Rosenbloom and Meadowcroft, 2014). At the same, the economic and social opportunities of clean technology innovations and material consumption reduction strategies hint at other opportunities to deal with climate change. As Philippe Bourke, director of the *Regroupement national des conseils régionaux en environnement du Québec*, said, "If we reduce petroleum [use], it will be good for the economy, it's good for public health, and on top of that, we reduce greenhouse gases! Marvelous, so it's win win win" (Interview, [47] January 9, 2015). Hence, defense against degradation is only half of the story of the fossil 'feud' in resistance against pipelines and dirty oil. In the media, the rowdier aspects of pipeline resistance—in the form of noisy masses of protestors or acts of civil disobedience—often eclipse the longer-term projects of decarbonization, ecological production systems, and sustainable consumption patterns. The public hears about pipeline protests in the media, from which they understand that refusal revolves around concern about the risks. But the alternatives are poorly described; as Karel Mayrand stated, "It is difficult to find airtime to talk about solutions" (Interview, December 4, 2015).

[47] "Si on réduit le pétrole, ça va être bon pour l'économie, c'est bon pour la santé publique, pis en plus, on réduit les gaz effet de serre! Merveilleux, donc c'est win win win."

In large part, due to metabolic rifts programmed into prevailing capitalist economics, policy choices of extractivism intensified, or attempted to intensify, oil sands exploitation in Canada, and fueled citizen and environmentalist anxiety and indignation regarding the neoliberal state's complacency with petro-capitalist interests amid a burgeoning planetary climate crisis. As heretofore described, the impacts of the capitalist fossil economy on governance, as well as the potential and actual physical effects of environmental degradation on human health and ecosystem function, stimulated public dissent in Quebec and across North America against pipelines. In opposing oil and articulating public stances that are "*contre les hydrocarbures*" (translation: against hydrocarbon fuels), civil society voices sought to carve out a place in the political discussion from which they have often been excluded. But beyond merely blocking pipelines, the movement raised questions about the long-term ecological viability and social desirability of carbon-intensive, capitalist-driven, and unequal economic development. In so doing, the anti-pipeline argument confronts capitalist frameworks of work, social life, and environmental protection. The next chapter delves into prominent events regarding oil's influence on prevailing institutions of governance in Quebec and Canada that contributed to the strengthening of the anti-pipeline movement.

Chapter 4: Institutions, governance and anti-pipeline politics

Market-centric social conventions support the on-going production of carbon-intensive and environmentally destructive fuels such as bitumen. Those conventions, formalized and codified, are the social institutions that are key to understanding social resistance to pipelines. If we take seriously Ulrich Beck et al.'s (2013) claim that world 'risk society' fuels the formation of broader 'communities of climate risk', what kinds of contemporary institutions play a role in this formative process, and how do they condition the possibilities for anti-fossil fuel advocacy? Turner (1997) defines an institution as "a complex of positions, roles, norms and values lodged in particular types of social structures and organizing relatively stable patterns of human activity" (p. 6). Such assemblages organize modes of production and consumption that in turn drive the use of fossil fuels and the accumulation of greenhouse gases in the atmosphere. Even though an overwhelming majority of climate scientists agree upon the detrimental effects of fossil fuels (IPCC, 2014), prevailing governance institutions tend to maintain such fossil fuel intensive patterns.

The Energy East pipeline is an example of this paradox. If built, the pipeline would deliver up to 1.1 million barrels per day of crude oil to markets, while at the same time increasing carbon emissions, when scientists warn of catastrophic environmental changes from global adherence to current levels of oil production (e.g.: IPCC, 2014; Rockstrom et al., 2009). As described earlier, conflicts around the Energy East pipeline are not limited to anxiety about anticipated disasters like oil spills or extreme weather events. Hoberg (2016) writes: "The politics of this pipeline has in large part been 'the politics of structure,' or the struggle over defining the institutional rules of the game" (p. 1). Anti-fossil fuel voices pushed back against the prevailing institutional rules that are predicated upon capitalist social and ecological relations, for which the main objective is the creation of wealth by disembedding social and ecological relationships from their "particular context[s]" and "recombining" them into commodities to drive capitalist accumulation processes (Giddens, 1994, p. 2). Social movements used the pipeline to question this model of capitalist development and stimulate critical conversations about a post-carbon society.

This chapter concentrates on the "petrolization" (Karl, 1999; Romero, 1997) of governance institutions—that is, the influence of oil wealth on public policy potentially leading to a political consensus for oil sands pipeline approval. Petrolization in Canada and Quebec can be evidenced in two case studies involving environmental policy and pipelines. The first case

revolves around the passage of omnibus bills C-38 and C-45 in the Canadian Parliament in 2012. The Canadian government justified the regulatory changes by appealing to the resource industry's potential to create jobs and economic growth (Jobs and Growth Act, 2012; Jobs, Growth and Long-term Prosperity Act, 2012). Based on discourse analysis of interviews with anti-pipeline movement leaders and other discursive statements found on-line, I argue that the regulatory changes of the omnibus bills galvanized cultures of citizen engagement and public participation around fear of the negative effects of a less stringent, corporate-friendly regulatory regime.

The second case study examines civil society responses to TransCanada's preliminary work, namely the company's feasibility study for the Energy East pipeline's oil port in an endangered beluga whale habitat. Under Quebec environmental law, before initiating operations in an ecologically sensitive area, a company is required to produce evidence that no undue harm will occur to endangered species. Lacking such official documents, government authorities nonetheless approved TransCanada's permit to commence work in the St-Lawrence River estuary. Environmental groups responded with a court injunction, rallying pubic outcries about the compromising of pipeline governance by petroleum interests.

The chapter argues institutional failures to account for risks to the environment, climate, and drinking water bolstered social resistance against pipelines. Following Dufour et al. (2015), I argue that citizens and environmentalists become indignant about the deterioration, and in some cases planned destruction, of protections offered by social and environmental governance. Witnessing the negative effects that the promise of an influx of resource capital had on democratic institutions sharpened citizens' commitments to political action against energy infrastructure development.

4.1 Petrolization in Canada: The omnibus bill case

In his persistent support of fossil fuel production in Canada, former Canadian Prime Minister Stephen Harper's political regime became recognized globally as a major obstacle to improved climate policy. After obtaining a parliamentary majority in 2011 following six years of minority rule, Harper's Conservative government intensified oil/tar sands development in Alberta, a trend already underway under previous Liberal governments. Moreover, the Harper regime withdrew from the Kyoto Protocol, the primary global policy mechanism of the United Nations Framework Convention on Climate Change (UNFCCC) to reduce global greenhouse gas emissions. The ostensible reason for abandoning the protocol was the Alberta Oil Sands, which was the country's fastest-growing source of carbon wealth but also carbon pollution; compliance with the

Kyoto Protocol would have forced severe restrictions on tar/oil sands extraction, thus impinging upon the industry's profitability (Environment Canada, 2014).

The government's approach to governance of climate and fossil fuel can be exemplified by a series of policy changes that reshaped environmental governance in Canada beginning in 2012. Castree (2008) and Peck and Tickell (2002) outline how governments increasingly align themselves with neoliberal imperatives through the rolling back of regulations, or deregulation, and the rolling out of policies amenable to accelerated resource extraction and pipeline construction—re-regulation. This concept has been called "de/re-regulation" (McBride and Smith, 2013, p. 208). Legal scholar Maclean (2016) argues that de/re-regulation permitted the "regulatory capture" of Canadian environmental law and policy "away from the public interest toward the private interests" (p. 1-2).

Evidence of the regulatory capture of environmental governance in Canada was widely reported in the mainstream media. Journalists with the Canadian Broadcasting Corporation (CBC) highlighted how one thousand one hundred meetings of bureaucrats and elected officials of the federal government with oil and gas industry lobbyists occurred between July 2008 and December 2010 (Beauchemin, 2011). Another report detailed that between September 2011 and September 2012, government officials met with senior industry officials seven hundred and ninety-one times; and in the same period, the government met with environmental groups once (McCarthy, 2012). The object of this flurry of corporate-government exchanges was regulatory reform. In a document addressed to federal and provincial ministers, the Energy Policy Institute of Canada—an oil and gas industry-financed lobby group (Pineault, 2012, p. 3)—identified "Canada's regulatory system… as a potential obstacle in maximizing the value of the country's energy resources" (Energy Policy Institute of Canada, 2012).

Corporate lobbying efforts culminated in the passage of two "omnibus" bills: Bill C-38 in June 2012 (Jobs, Growth and Long-Term Prosperity Act, S.C. 2012, c. 19) and Bill C-45 in December 2012 (Jobs and Growth Act, S.C. 2012, c. 31). By putting forth the two bills in the Canadian Parliament, the Conservative majority government scaled back the regulatory obstacles identified by industry-funded groups like the Energy Policy Institute of Canada while also avoiding substantial public discussion or parliamentary debate on the prospective outcomes. Facing a majority Conservative parliament, opposition parties' sole remaining option was to stall the bills' passage by filibustering in the hopes that media would cover the proceedings and public outcry would follow. Media attention was extensive, and twelve Canadian environmental organizations promoted the campaign "Black Out, Speak Out" by which more than thirteen thousand websites reportedly shut down their internet presence for a day to protest the policy

change (RT News, 2012). Despite opponents' efforts, both omnibus bills passed in Parliament and the legislative overhaul was accomplished.

Key environmental laws changed, notably the Canadian Environmental Assessment Act, the Navigable Waters Act, the Species at Risk Act, and the Fisheries Act; other laws were amended, including the Indian Act (Kirchoff and Tsuji, 2014, p. 110). Major regulatory modifications included a reduction in the number of environmental assessments, the loss of protected status for 99% of Canadian waterways, a narrowing of the definition of environment to "only federally mandated biophysical aspects," and an alteration of requirements for aboriginal participation in resource governance (Ibid). Through what MacNeil called "aggressive rollbacks," pipeline project reviews also changed significantly through the passage of omnibus bills C-38 and C-45 (2014, p. 176). Prior to de-regulation, the Canadian Environmental Assessment Agency performed joint reviews of pipeline projects with the Calgary-based National Energy Board. The former's authority was canceled, and the latter became the sole regulatory authority for pipelines, prompting complaints from environmental jurists (see Peloffy, 2016) and the parliamentary official opposition (Davidson, 2012).

Academic scientists mourned the dismantling of "evidence-based policy-making" (e.g.: Young, 2013), and journalist Chris Turner (2013) qualified the omnibus case as a "war on science." Meanwhile, accounts of the "muzzling" of federal environmental scientists became common in major Canadian newspapers (Chung, 2013). Environmental scientist Robert Gibson (2012) describes the de/re-regulation of Canadian environmental governance as a "streamlining" of legislation that permitted the fast-tracking of reviews of over six hundred major resource extraction projects and threatening to "undo decades of progress" of environmental governance (p. 179). Gibson writes, "The Canadian government's new environmental assessment legislation stands as a particularly extreme example of regressive changes" (Ibid). Federal scientists were equally preoccupied with de/re-regulation, though less vocal. In a report called "The Disappearance of Canadian Public Interest Science," the largest professional union of federal scientists in Canada (the Professional Institute of the Public Service Canada, or PIPSC) observed that, between 2013 and 2016, $2.6 billion in funding and more than five thousand jobs would be cut from ten federal science departments alone (PIPSC, 2014, p. 3). A survey conducted by the union also found that 94% of federal scientists considered the cuts were already having a negative impact on the government's overall science capacity, and two thirds felt that environmental protection and sustainable resource management had worsened since deregulation (Ibid). Another survey, conducted the previous year, found that 90% of federal scientists felt that they could not speak freely about their work (Big Chill, 2013). In short,

the silencing of federal climate scientists was commonplace under the Harper regime in Canada.

During this time, Canadian academic scientists became increasingly vocal regarding oil sands development. For example, in the journal *Nature*, aquatic ecologist Wendy Palen and co-authors (2014) convened an interdisciplinary group of scholars to publish a commentary urging policymakers to consider the "global impacts of pipelines," charging that the de/re-regulation of environmental policy reflected a "broken policy process that overlooks broad climate, energy and environment issues" (p. 465). In their view, environmental policy frameworks—both before and especially after the previously described regulatory changes—assessed neither the cumulative environmental impacts of pipeline projects in the form of 'upstream' activities of extraction and production, nor of the 'downstream' activities of consumption (Palen et al., 2014). Instead, Canadian environmental policy included only the direct and immediate effects of pipeline construction, neglecting both the ecological context and critical impacts of oil/tar sands extraction on global climate (Ibid).

Quebecois civil society groups echoed claims of a broken environmental policy process. In an open letter in June 2013, civil society organizations, including Greenpeace and thirteen other environmental organizations, criticized the government of Quebec's approach to energy development for being "incoherent," "seemingly improvised" and "chaotic" (Greenpeace Canada, 2013, p. 1). Since then, this claim of policy incoherence has been repeated many times by environmental groups, revolving around a common stance: that oil sands pipelines are incompatible with commitments to fight climate change and reduce greenhouse gas emissions.[48] Christian Simard, director of *Nature Quebec*, explained in more detail his perception of the government's approach to energy and environmental policy:

> It is only to provide a justification to make a policy that is mostly gathered from the private initiatives that are submitted to the government. I don't believe there is a genuine will to make a coherent energy policy. What is wanted is to… put Quebec's resources into the hands of developers (Interview,[49] November 24, 2014).

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[48] For example, see joint media release between the Council of Canadians, Greenpeace Canada, Conservation Council of New Brunswick in December 2015, claiming that Energy East was "incompatible with federal government's climate pledge" in the Paris U.N. climate talks (Council of Canadians, 2015b).

[49] "C'est que pour donner une justification pour faire une politique qui est plus ramassée d'initiatives privées qui sont déposées au gouvernement. Je ne crois pas qu'il y a une véritable volonté de se doter une politique énergétique cohérente. Ce qu'on veut c'est de… mettre les ressources du Québec dans les mains des promoteurs. »

In an open letter to the public, former federal Natural Resources Minister Joe Oliver echoed this plan of natural resource privatization, putting forth the recommendation to "streamlin[e]" regulatory processes as a means of accelerating the approval of resource extraction projects, the goal of which was to "generate thousands of new jobs and open up new export markets" (Natural Resources Canada, 2012b, para. 7))." Curiously, Oliver used the same term as pipeline opponents in his critique of the regulatory system, qualifying it as "broken" (Ibid, para. 8). Contra to the policy changes from de/re-regulation that environmental scientist Gibson (2012) described as "regressive" (p. 179), the Canadian government maintained they were not damaging but rather were integral elements of "responsible resource development" (Natural Resources Canada, 2012a, para. 1). Minister Oliver justified fast-tracking environmental regulations to avoid "the long delays in reviewing major economic projects that kill potential jobs and stall economic growth by putting valuable investment at risk"—a potential investment that was estimated at approximately $500 billion in resource extraction for the next decade (Ibid, para. 2 and 3). In that sense, "responsible" resource development was about responding to market imperatives or, echoing Simard's quote from above, it was about "put[ting] Quebec's resources into the hands of developers" (Interview, November 24, 2014). In that sense, the Conservative government's extractivist policy project was a reaction to the contemporary tendencies of economic primarization: the prioritization of growth from natural resource exploitation.

Noting this increasing corporate influence on environmental policy, Karel Mayrand, Director of the David Suzuki Foundation Quebec, lamented: "When they [the petroleum industry] arrive, they are so big, they change the culture. That is what I find troubling [and] damaging, it's that it becomes more difficult to continue to be progressive in environmental matters when the petroleum industry establishes itself" (Interview, [50] December 4, 2015). Mayrand's statement reflects the 'resource curse' thesis: as the petroleum industry leaves its imprint on the public policy landscape, governments become less accountable to the concerns of their respective populations and more obligated to the corporations that pay rents for resource extraction rights (see section 3.2.2 for a discussion on Karl's [1999] theory). Mayrand was not alone in his concerns. Many NGO leaders and spokespeople collectively signed press releases on several occasions as means of drawing public attention to government collaboration with the oil industry

[50] "Quand ils arrivent, ils sont tellement gros, qu'il change la culture. Moi, c'est ça que je trouve dérangeant, dommageable, c'est que ça devient plus difficile de continuer d'être progressiste en matière de l'environnement quand l'industrie pétrolière s'implante."

in the pipeline matter. For example, in September 2014, dozens of Quebecois politicians and mayors were invited to a private supper paid for by TransCanada and attended by TransCanada's board of directors. That same day, six environmental non-governmental organization (ENGO) representatives put out a press release denouncing the government's proximity to the corporation and demanding an independent, public review of the project (Association Quebecoise de la Lutte contre la Pollution Atmospherique, 2014). A quote in the press release read, "The government's role is to defend the public interests and to protect the environment, and not make deals behind closed doors with polluters" (Ibid, para. 4). Although corporate-paid meetings are hardly illegal, they point to a style of 'good old boys' decision-making that occurs behind closed doors and underlines the shifts in power resulting from the promise of oil wealth.

In the absence of significant policy frameworks and democratic forums for rigorous expert inquiry and substantial citizen dialogue and deliberation, the social conversation about Canada's post-carbon future converged around pipelines, often through social media, grassroots meetings, and public demonstrations. Karel Mayrand framed the pipeline as a "referendum on the tar sands" (Interview, December 4th, 2015), pointing to the symbolic power of the infrastructure in representing tar sands exploitation itself. Nonetheless, ENGOs still felt constricted within a political climate of censorship and oppression of freedom of opinion. In Philippe Bourke's words, Director of the ENGO *Regroupement national des conseils régionaux de l'environnement du Québec* (RNCREQ),[51] "[b]ecause of the federal [Harper] government… we can't do anything"[52] (Interview, January 9, 2015).

Despite a "lack of political will" to tackle the issue (Geden, 2015, p. 194), ENGO leaders began to see that the solutions to the complex problems of anthropogenic climate change were emerging from below, from social movements and other directly or potentially affected constituencies. Referring to environmental de/re-regulation, David Suzuki Foundation Director Karel Mayrand said, "When they shut it down, [opposition] will emerge elsewhere… in the streets" (Interview, December 4, 2015). A similar phenomenon occurred in early to mid-2000s Alberta, where ENGOs in the heart of oil sands country were increasingly estranged from policy-making circles, to the point of being de-legitimized as extremists and foreign-funded radicals by

[51] Roughly translated as the National Grouping of Regional Environmental Councils of Quebec.

[52] " Avant les pipelines, on avait aucune emprise, à cause surtout du gouvernement fédéral qui nous donne pas d'emprise sur sa politique énergétique, aucune emprise sur les sables bitumineux, on peut rien faire."

then federal Minister of Natural Resources, Joe Oliver (Haluza-Delay and Carter, 2014). Such an unfriendly stance toward civil society made environmental advocacy work increasingly difficult in Alberta, with the result being that ENGOs changed organizational strategies, "engag[ing] in more direct action, [seeking] broader coalitions with other citizen groups," and shifting from domestic advocacy to transnational activism (Haluza-Delay, 2014, p. 347).

In Quebec, a similar change in tactics occurred a few years later, and professional nongovernmental organizations increasingly worked with nonprofessional, grassroots citizen groups to oppose oil sands transport and fossil-fuel friendly government policies. The Common Front for the Energy Transition was one such attempt to convene over sixty ENGOs and citizen groups from across Quebec to "say no to fossil fuel pathways, [and] yes to clean energy" (see www.pourlatransitionenergetique.org). Karel Mayrand explains the reasons for the tactical shift away from cooperation to contestation:

> The federal government is for the tar sands: they blocked the international climate negotiations [and] they withdrew from the Kyoto protocol. In 2012, they dismantled all the laws that protected waterways in Canada; practically completely dismantled the Canadian Environmental Assessment Agency; [and] invested eight million [dollars] to investigate ecologist groups who were fighting against pipelines, like us. So then we arrive, you understand, at the limits of that strategy (Interview[53], December 4, 2014).

Hence, the collaborative, policy-oriented strategies of environmental organizations arrived at their limits largely due, I argue, to the increasing alignment of government with the petroleum industry's objectives through neoliberal extractivism. Yet, as corporate interests weakened mechanisms of environmental protection and industry regulation, participation of volunteer citizens in political action against pipelines increased, and new forms of collaboration emerged between these citizen groups and ENGOs, who themselves were looking for new strategies to effect change. The next section examines how the convergence of several causes, such as protection of endangered species, citizen concern over pipelines and the social-environmental effects, and public disdain of an emerging nexus of government-corporate complicity, resulted in new networks of popular action that conditioned a generalized 'social non-acceptability' of oil sands pipelines in Quebec. Drawing on the case study of a beluga whale habitat threatened by

[53] "[Le] gouvernement fédéral [est] pour [les] sables bitumineux, ils ont bloqué les négociations internationales sur le climat, ils se sont retirés du protocole de Kyoto. En 2012, a démantelé toutes les lois qui protégeaient les cours d'eau au Canada, a démantelé pratiquement complétement l'agence fédérale d'évaluation environnementale. A investi 8 millions pour enquêter sur des groupes écologistes qui se battaient contre les pipelines, dont nous, pis là on arrive, comprends-tu, à la limite de cette stratégie."

the Energy East pipeline, I discuss how another instance of petrolization emboldened citizen action while also sparking a broader public awareness of the effects of oil interests on governance.

4.2 Petrolization in Quebec: The beluga case

As argued in previous chapters, capitalism shapes the political and economic pressures for pipelines. Market demand for oil sands from the industry's main client, the U.S., was lagging due to increased shale oil production from fracking in years prior, and the Canadian oil market was not large enough to absorb projected increases in oil sands surplus supply. To maintain profitability from the tar sands, industry leaders responded by advocating pipeline expansion to access international markets to export bitumen (Canadian Chamber of Commerce, 2013). To do so, pipeline companies needed to connect with oil ports. But due to the political and social resistance to pipelines to the Pacific to the Gulf coasts, TransCanada Corporation turned to the relatively quiet (at the time) East coast.

Consequently, in the spring of 2014, TransCanada announced plans for the construction of two eastern oil ports that would allow for tar/oil sands exports to connect with global markets through tanker shipping routes. The first, located in St-John, New Brunswick, and the second in Cacouna in Quebec's Saint Lawrence River estuary. The New Brunswick location was convenient as it was situated near the largest oil refinery in Canada, the Irving Oil Refinery (see www.irvingoil.com). The location of the second proposed port in Cacouna, or 'Gros Cacouna', had since the late 19th century been the target of politicians' and businessmen's plans to build a deep-water port for staples goods and light industry (no oil or gas). It was not until 1981 that construction of a light port was completed and inaugurated.

TransCanada's project to convert Gros Cacouna's existing light port facilities into a major heavy oil export marine terminal was mediated as having both an economic and a political justification. First, to provide a second export route for bitumen after the New Brunswick facilities to access global markets for oil/tar sands; and second, to appease the Quebec government's need for the creation of more employment from the Energy East pipeline project.

The story of Cacouna is more complex for several reasons; the shared jurisdiction of the St-Lawrence Estuary between federal and provincial institutions, combined with high unemployment in the area and persistent tensions arising from previous industry initiatives to build oil or gas ports as recently as the 2006 "Rabaska project" that sharply divided the local population (Chaloux and Custeau, 2009). Furthermore, the presence of federally protected and endangered beluga whales in the summer months around Cacouna gave environmental groups legal justification to challenge the oil port project in court. Arguing that TransCanada's

operations risked causing “irreparable harm” to the beluga whales, environmentalist groups and their lawyers launched an injunction against TransCanada in 2014 (*Centre Quebecois du droit de l’environnement v. Oleoduc Energie Est Ltee.*, 2014 QCCS 4398). Hence, the conversion of a light port into facilities to export heavy oil in the habitat of an endangered species as iconic as the Saint Lawrence beluga whale added to the controversy of the port and pipeline project. The legal proceedings then drew attention to the project, at which point it became the target of environmentalists and concerned citizens denouncing the potentially disastrous environmental risks.

The Quebec Environmental Law Centre (CQDE) court injunction was instrumental in pushing the issue higher up on the political agenda. With little to no existing climate jurisprudence in Canada, federal endangered species and provincial environmental quality legislation formed the core of the plaintiffs’ legal argument against the oil port (*Centre Quebecois du droit de l’environnement v. Oleoduc Energie Est Ltee.*, 2014, QCCS 4398). Cetologists (whale biologists) who had been recording whale sightings for the past thirty years in the area, indicated a significant presence of St-Lawrence beluga whale mothers and calves off the coast of Cacouna during the spring, summer and fall months (Groupe de recherche et education en mammifères marins (GREMM), 2015). Researchers considered the area targeted for TransCanada’s oil port to be essential habitat for the re-establishment of the species, which was decimated by hunting up until the late 1970s and, more recently, had suffered from changing climatic conditions and increased toxic loads (Ibid).

In spring 2014, the TransCanada Corporation began a feasibility study for an oil port at Gros Cacouna. Specifically, TransCanada’s study involved drilling in the marine bed to assess its capacity to sustain the weight of the proposed port. But to commence operations, they would “need a permit to any sort of work in a river in Quebec,” as one environmental lawyer stated in interview (January 9, 2015). In Quebec, the provincial authority is the Environmental Ministry, or the *Ministère de développement durable, environnement et la lutte contre les changements climatiques* (MDDELCC). The MDDELCC civil servant named Mrs. Jean, who was charged with overseeing the TransCanada permitting process, failed to obtain a written commitment from the company to assert that their feasibility operations would not inflict undue harm upon the beluga whales and their habitat. With the Saint Lawrence river estuary being a shared federal and provincial jurisdiction, and unable to answer the question of harm to the threatened species from within her own provincial ministry, Mrs. Jean turned to the federal government’s beluga experts in the Department of Fisheries and Oceans (DFO).

DFO beluga whale experts, in response to a different TransCanada gas port project proposed in Cacouna in 2007 but never built, had already warned that "[t]he proposed development project will have an impact on a sector of the Estuary frequently used by the animals, particularly during the calving period in summer" (Department of Fisheries and Oceans, 2007, p. 5). However, with TransCanada's proposed oil port project in 2014, the DFO produced a new scientific advisory which put forth recommendations running counter to the 2007 advisory. In the new advisory from 2014, Alain Kemp, DFO director of the endangered species branch (but non-expert on marine mammals), acknowledged that the noise from TransCanada's seismic operations posed harm to the belugas, but that the company's "attenuation measures" were sufficient to avoid irreparable harm to the species (*Centre Quebecois du droit de l'environnement v. Oleoduc Energie Est Ltee.*, 2014, QCCS 4398, p. 13, my translation). Attenuation measures included establishing an exclusion zone with a radius of 540 meters, implementation of a beluga monitoring program, and not surpassing a threshold of 120 decibels of underwater sound (Ibid, p. 30). Mr. Kemp's analysis in the 2014 advisory affirmed that the company's attenuation measures were sufficient to protect belugas from irreparable harm; yet Mrs. Jean discovered that beluga whale experts in the DFO's Science Branch had not weighed in on the matter at all since 2007 (Ibid, p. 21).

Sensing significant inconsistencies in the dossier, Mrs. Jean initiated a series of e-mail exchanges with the DFO's Science Branch and TransCanada, requesting clarification concerning the discrepancies between the 2007 and 2014 scientific advisories. In response to the query from the Quebec environmental ministry's civil servant, the Science Branch "simply sent to the [provincial environment] Minister the documentation that the latter had already analyzed, and which [had] raised concerns" (Quebec Superior Court, 2014).[54] With many unanswered questions corresponding to Mrs. Jean's initial concerns still remaining, the Environment Ministry nevertheless decided to go ahead and approve the certificate of authorization for TransCanada's seismic work in the Saint Lawrence.

Consequently, with the tacit approval of Quebec's Environment Minister (MDDELCC) and the assent of the Canadian Department of Fisheries and Oceans (DFO), TransCanada ordered its subcontractors to commence drilling and testing activities at Cacouna. However, lacking the required paperwork for legitimate approval in the form of an official science advisory approved by government experts, such authorization was technically not legal. The lack of a legal permit

[54] "…envoie simplement au Ministre la documentation que ce dernier avait déjà analysée et qui soulevait des inquiétudes."

from Quebec gave the Quebec Environmental Law Center (*Centre Québécois du droit en environnement*) and its plaintiffs fodder for an injunction against TransCanada in Quebec courts. The plaintiffs argued that the Environmental Ministry's authorization to TransCanada contravened legal and administrative processes. This point was a central feature of the injunction against the corporation, as all development work in Quebec rivers occurs under the authority of both the provincial and federal governments, and requires an official permit that is backed by scientific expert opinion.

Environmental groups launched two injunctions: one in the late spring and the other in the early fall of 2014. The first was unsuccessful, with the judge qualifying the environmentalists' concerns of irreparable harm to the Saint Lawrence beluga whale population as "alarmist" (Shields, 2014b). The second case, however, ended in victory, thereby forcing TransCanada to cease its operations for the duration of the beluga calving season, which lasts until the end of October. That the DFO director who had signed off on the 2014 scientific advisory was not a beluga whale expert contributed to his de-legitimization as an authority on the matter before the court. The successful court case revealed that senior DFO bureaucrats had bypassed their own beluga whale experts, instead seeking an opinion from non-specialist biologists to approve company operations in the estuary. Regarding such administratively dubious practices, the MDDELCC accepted that there was cause for concern. Yet, MDDELCC had approved the permit regardless, giving rise to speculation in the press that the order to approve TransCanada's permit had come from higher up in the Quebec government (Legault, 2014). When the media probed provincial Environment Minister David Heurtel to answer for why authorization of TransCanada's operations went through despite the lack of legally required documents, the minister reportedly swore that no "political interference" had occurred in the permitting process (La Presse Canadienne, 2014). The judge was not successful in obtaining a more satisfactory response, and official court documents reveal that authorization went through for "unexplained reasons" (La Presse Canadienne, 2014).

Critics were not amused. The David Suziki Foundation's Karel Mayrand raised concerns about political interference, contrary to minister Heurtel's assertions (Interview, December 4, 2015). Overall, the series of publicized court battles in the beluga case revealed the way in which environmental regulatory frameworks in Quebec were compromised for corporate interests, and the extent to which the Quebec government was initially unwilling to apply its own environmental laws to slow or possibly halt the work of a powerful corporation promising to bring in lucrative investments. One environmentalist, who surveyed TransCanada's Corporation's (TCC) subcontractors on the water from a kayak, said, "…we had a company of 'cowboys' who

were coming to push a project on us for which we didn't know if it was a good project or not, but their ways of doing were questionable" (Interview,[55] January 28, 2015). Those 'cowboys' were perceived to be uncaring both of Quebec's natural environment and its democratic institutions, against the backdrop of media reports of an increasingly active group of oil industry lobbyists in Quebec (e.g.: Shields, 2014a). Indeed, the successful ruling of the environmentalists' court injunction against TCC's oil port project reinforced the 'rude cowboy' perception, revealing that the environment minister's tacit approval of the company's drilling in the estuary had occurred despite expert opinion regarding grave impacts to the endangered beluga whale population (*Centre Quebecois du droit de l'environnement v. Oleoduc Energie Est Ltee.*, 2014 QCCS 4398). This opened the door for public scrutiny of the corporation's attempt to reach new markets for oil sands, thereby fueling the indignation of citizens and public attention to the pipeline and port projects.

While the CQDE case was central to drawing public attention to the Energy East pipeline and defeating a key aspect of the project (i.e.: the oil port) in provincial courts, citizen mobilization outside the courtroom also played a significant role. Toward the beginning of the saga, dozens of people walked seven hundred kilometers from Cacouna to the Mohawk community of Kahnesatake with the "Peoples' Walk for Mother Earth" (Richard, 2014). Later, in October 2014, more than one thousand people gathered in Cacouna to protest the oil port, in one of Quebec's largest environmental demonstrations in a rural region in recent years (Radio-Canada, 2014c).

When TransCanada ended up losing the court case, the company chose not to reapply for a permit to recommence work in November 2014. By then, the situation had become highly politicized, and the tide of public opinion was turning against the Energy East pipeline. Martin-Morin et al. (2015) estimated that 50% of Quebecois people were against the project in the fall of 2014. The Quebec government bowed to public pressure and issued seven conditions the company would have to meet if it were to continue. Those conditions included the need for a stringent emergency intervention plan, community and First Nations' consultation, and an environmental impact assessment with an evaluation of projected greenhouse gas emissions arising from the pipeline (Radio-Canada, 2014b). A few months following the issuance of Quebec's conditions, in April 2015, TransCanada officially announced the cancellation of construction plans for the oil port in Cacouna (CBC News, 2015).

[55] "… on avait une compagnie de 'cowboys' qui venait nous enfoncer un projet dont on ne savait pas si c'est un bon projet ou pas, mais leurs façons de faire étaient douteuses."

Throughout the Cacouna episode, irresponsibility was a recurrent theme appearing in opponents' discourses to the port development. As the former director of WWF-Quebec Marie-Claude Lemieux said of the incident, the court injunction made Quebec's environmental minister "look like the guy who didn't do his job properly" (Interview, November 2014). But the issue goes deeper than that: it wasn't just about professional incompetence in high office, it was about a governance model whose success is determined by the ability to stimulate and manage economic growth, with environmental and social impacts deemed less important. While the environmentalists' second injunction ended in victory, the first injunction was a failure, with the judge qualifying environmentalists' assertions that TransCanada's drilling would cause "irreparable harm" to beluga whales as "alarmist" (Shields, 2014b, my translation). Instead, the judge had ruled in favor of the company for whom "work delays" would cause "economic harm" (Ibid). While the end story was a success with the second injunction, the gap between the spirit of the law and its actual implementation was ample, allowing considerable room for the intrusion of capitalist interests.

Cacouna was a turning point for the anti-pipeline movement in Quebec. The case revealed how both governments attempted to renege on their regulatory promises to protect an endangered beluga whale population, and how senior provincial bureaucrats bypassed their own experts to approve TransCanada's drilling permits in the territory of that endangered species. Nonetheless, despite the rallying slogans like Greenpeace's "*Sauvons les bélugas*" (Latimer, 2014), between climate change, industrial pollution, and maritime traffic, it may already be too late for the Saint-Lawrence population of beluga whales. As one informant from the *Regroupement vigilance hydrocarbures du Québec*, a biologist by training, said, "Port or no port, they [the St-Lawrence belugas] will disappear anyways… but you see, they were a precise object upon which people could fix their imagination that made sure that the mobilization was so big" (Interview,[56] January 6, 2015). Between the busyness of work and everyday modern life, people rarely have time to learn about complex energy and environment issues; therein, the image of a free and beautiful creature being trampled by a powerful corporation is a powerful one to symbolize the broader effects of petrolization.

As one environmental lawyer said: "the beluga case, [it] is about belugas, yes. But, it's [also] about civil society finding a way to stop pipelines… and the challenges of social and political and economic decarbonization... [and] finding a transition to a cleaner system" (Interview,

[56] "Pis un port ou pas, ils vont disparaître pareil… mais vois-tu, c'était un objet précis sur lequel les gens ont pu fixer leurs imaginaires qui a fait en sorte qu'il y avait une mobilisation si grande."

January 9, 2015). Beyond a strictly technical process of "decreasing carbon intensity of the global energy mix" (Sun, 2005, p. 975), the challenges of decarbonization are of a distinctly social and political nature that points to the harms of petrolization for governance. After the beluga case and the resistance movements it bolstered, which received widespread media attention, the Energy East pipeline project was catapulted to the forefront of Quebec national consciousness. Anti-pipeline advocates helped frame the oil port in endangered beluga habitat, and the pipeline itself, as symbols of the encroaching petrolization of Quebec's political economy. In the next section, I will examine how such changes in governance have prompted the rise of 'hydrocarbon vigilance' groups.

4.3 From the *'gouvernemamam'* to Quebec Inc.: Environmental governance and hydrocarbon vigilance

Quebec has a history of resource extraction, from the damming of multiple rivers in the postwar period for hydro-electricity to the construction of numerous aluminum smelting plants, which relied on cheap energy produced through the dams (Evenden, 2011). Later, the Quiet Revolution of the 1960s was a period during which the Quebec government 'modernized' institutions and ushered in a new era of Keynesian economics and social democracy, managed by a statist, top-down and hierarchical government—a homegrown version of the welfare state which later came to be called the "Quebec model" (translation, Bourque, 2000). A fifty-year experience with the Quebec model nourished collective expectations for a government that might better consider collective priorities and (re)distribute surplus value through taxation, regulation and offering social programs and services. For environmentalists and many others, this included an environmental safety net that protects Quebec from degradation of ecosystems, watersheds, and ultimately, public health and well-being.

However, neoliberal governance in Canada expanded the extractive industry's role in environmental policy-making. The government's role shifted from setting the agenda and establishing general economic directions to managing economic growth; a shift exemplified in discourse used by the National Energy Board—the federally mandated energy regulator—where the private sector actors it is supposed to regulate are referred to as "industry partners" (National Energy Board, 2016a, para. 4). Through such changes in governance, the alignment of corporate interests and government has brought forth not only the concentration of wealth in the hands of fewer and fewer people, but also the concentration of political power into a smaller group. In that contest, most people do not participate in decision-making for important projects like pipelines. As advanced, modern systems of production continue to generate significant climate risks due to the lack of commensurability between social institutions and contemporary

problems, institutional oversight becomes an important object of critique for groups that seek to emphasize the potential hazards of mega-projects like pipelines and oil/tar sands extraction. As Patrick Bonin explained, “There is no formal framework apart from the government to permit people to decide upon their energy future and their economy” (Interview, January 20, 2015[57]). With government institutions that are increasingly neoliberalized, decision-making is anything but neutral.

Winfield (2013) points out, in the absence of an official energy policy, Canadian energy policy is “*de facto…* market-based” (p. 21-22). Without a decision-making space free from the influence of markets—the ‘formal framework’ to which Bonin referred—the public conversation about Canada’s energy future converged around pipelines. Lacking such a formal framework for public policy deliberation, oil sands pipelines have provided groups that are opposed to the maintenance of the fossil economy a powerful means for voicing dissent. Politicizing the pipeline question opens up space for conversations about social structure and energy choices that could lead to systemic transformations of society, instead of re-shuffling measures like carbon markets that often conserve the risky tendencies of capitalist metabolism.

Popular opposition to pipelines in Quebec and across Canada, then, intensified amid fears that the government was not doing enough to moderate and regulate the myriad risks of oil sands expansion. As Cleland and colleagues (2016) point out, beyond fears of being affected by climate and other environmental risks, the point of contention underpinning anti-pipeline sentiments revolves around opposition to top-down governance. Concerned citizens formed ‘hydrocarbon vigilance’ committees in response, as a means of educating their fellow citizens and neighbors about the risks of fossil-fueled climate change and the severity of potential catastrophes from pipeline spills. Becoming active interlocutors in a debate on energy and economic development that in previous generations had been left to experts, these ‘hydrocarbon vigilance’ committees reflected a deep malaise with governance. As one lawyer associated with the environmental movement explained in an email,

> I don't know if people had an illusion that because we have environmental ministries that they actually protect the environment? But I think… [the beluga case] simply hacked away at the idea that the "*gouvernemaman* " of Quebec is upholding the public interest when dealing with private developers. I think it bolstered the idea that the involvement of ordinary citizens

[57] “… mais il 'y pas de cadre formel à part du gouvernement pour permettre aux gens de décider de leur avenir énergétique et de leur économie.”

is needed in order to protect our common resources, be it water, atmospheric stability or beluga whales (Electronic communication, January 9, 2015).

The "*gouvernemaman*" or 'nanny state' hardened as it became the target of neoliberalization. The ongoing effects of neoliberalization on environmental governance institutions, both at the federal and provincial level, have weakened the government's ability to regulate and protect ecosystems and society. For Quebec's anti-pipeline movement, both the omnibus and beluga cases became emblematic of the ongoing transformation of the welfare state of the Quebec model, and the resultant collateral damage to the government's environmental and social safety nets. In the wake of increasing fiscal pressures and reliance on resource rents—described through the process of primarization and the resource curse in the previous chapter—the state is less likely to run counter to financially lucrative projects, perhaps explaining why a government ministry accorded permission for TransCanada's heavy industrial operations in endangered beluga whale habitat that was protected by both federal and provincial law.

Events like the beluga and omnibus cases publicly revealed the 'making over' of governance in Canada into a tool for more expeditious resource extraction. As Karel Mayrand said, "the beluga file revealed the proximity between the TransCanada company and the government of Quebec and the government of Canada" (Interview,[58] December 4, 2014). In that sense, the permitting process became a tool to further the objectives of extractivist policy described in the previous chapter—i.e.: governing in such a manner to take advantage of the tendencies of economic primarization in the global economic system. At the same time, while beluga whales on their own may be worthy of protection for a host of ecological reasons, TransCanada's transgression of the species' legal protections was an important lever for the environmental movement to rally both public indignation and legal punishment.

Citizens' concerns about pipeline spills, climate change, and endangered species protection gave way to anger that the government wasn't working to protect them. Their perception of injustice and lack of institutional protections spurred them to political action (Dufour et al., 2015). As "Mary," a citizen activist and mother involved in the movement against pipelines, said, "I don't want these pipelines, I think they're bad for everyone except a few shareholders and company owners who are going to profit directly from them" (Interview, December 4, 2014). Her remark reveals a concern with environmental governance, and governance in general, that is based on an unequal distribution of the risks and benefits of resource development. To further illustrate

[58] "Le dossier des belugas a révélé la proximité entre l'entreprise TransCanada et gouvernement du Québec et le gouvernement du Canada."

this point, Mary said that she didn't "want to be a citizen activist" (Ibid). She said, "I really don't. I've got other things to do. I hate this subject. But I hate the pipeline. What motivates me is outrage and a sense of injustice. But really, my energy, I really don't want to do this with it" (Ibid). Outraged by irresponsible social actors, and seemingly desperate and frustrated by a lack of rigorous, accountable oversight of the project, Mary banded together with fellow concerned neighbors to form local citizen committees to oppose the pipeline. Together, they spent many hours a week passing out pamphlets, organizing pipeline information workshops, speaking to journalists and municipal councilors, and meeting with fellow concerned citizens—all in the hopes of stopping the pipeline from crossing her area.

Beyond just stopping the pipeline, however, 'anti-pipeline' citizen committees resuscitated local people to be active defenders of the land, and ultimately potential agents of territorial governance. As another member of Mary's citizen committee said, beyond blocking Energy East, he (an organic farmer) "hope[d] even more that an amazing social fabric is made… and that it remains for other threats. Because [I] think that as long as we have the sort of political-economic system we have, it will come back, it will be another thing" (Interview[59], December 4th, 2015). The systemic influences of neoliberalism, oil wealth, and petroculture deviate governance institutions from their mandates to protect the public interest. One result of this is the re-politicization of the citizenry, leading to the creation of citizen committees for which engagement in political action entailed watching powerful corporations and holding them accountable for irresponsible and risky practices. The main network of these 'hydrocarbon vigilance' citizen committees was the *Regroupement vigilance hydrocarbures du Québec,* grouping together dozens of such committees across the province. On their webpage, the network coordinators described the reasons for the existence of their network as follows:

> In the field of energy, oil and gas companies and politicians seem to hold the upper hand. But citizens are speaking out to signify that the unbridled pursuit of profit and short-term electoral reasons lead us all, both locally and globally, to ecological, economic, and social disaster. They [citizens] are mobilizing around the defense of the environment (water, soil, air, climate) and their territories… the two being inextricably linked (Regroupement vigilance hydrocarbures du Québec, 2014).[60]

[59] "Je souhaite encore plus qu'il y a un tissu social écœurant qui se fasse… Pis, que ça reste après, pour d'autres menaces, parce que, [je] pense là, tant qu'on va avoir un genre de système économique politique qu'on a, ça va revenir, ça va être autre chose."

[60] "Dans le domaine de l'énergie, les sociétés pétrolières et gazières et les politiciens semblent tenir le haut du pavé. Mais les citoyens prennent la parole pour leur signifier que la recherche effrénée du profit et

In this way, these committees are not just watchdogs of corporations and their natural and social environments, but also of the government itself. But because citizens rarely create such forums for their political engagement, anti-pipeline politics tends to erupt, for the most part, in spaces constructed by governments or corporations, including media and public consultations. The next section interrogates the practice of "public consultation" and the paradigms of governance that organize the consultative spaces of the pipeline debate.

4.4.1 "Bogus" consultations, democratic deficits and bottom-up social action

The omnibus and beluga cases demonstrate how the arrival of oil sands interests in Quebec and Canada impacted pipeline governance—and just as importantly—citizen expectations for fair and democratic governance of the pipeline matter. More generally, a Montreal-based NGO report documented dozens of cases in which the federal government was "stifling debate and dissent in Canada" by "compromising public access to information," "curtailing advocacy and dissent on environmental and scientific issues," and "misrepresenting Indigenous voices," among other things (Alternatives, 2015, p. 3). Another example of criticism of corporate influence was the NGO Forest Ethics Advocacy's (2012) report entitled "Who Writes the Rules?" which pointed out a "revolving door" (p. 10) between industry and government. Arguing that the breadth and depth of oil industry influence on government laws resulted in a "corrosion of public process" (p. 2), the Forest Ethics report ended with a call to hold government office-holders to account to better "represent the public's interests when it comes to tar sands expansion" (p. 11) (Forest Ethics, 2012). The work done by Forest Ethics and Alternatives represented Canadian civil society organizations' and social movements' efforts to defend themselves against petrolization and other governance changes related to neoliberalism.

In the wake of such changes, it appears that citizens no longer view government pipeline review forums as genuine spaces of democratic deliberation and objective expert inquiry. "Marianne," with the *STOP Oléoduc* movement, described her experience working with anti-pipeline citizens' committees, many of which had submitted briefs to government consultations. At the beginning of the Energy East debate in early 2014, Marianne suggested that citizens were optimistic about the government's neutrality regarding pipeline projects and the prospects of institutional representation to protect citizens from undue risks. In short, people expected a fair review process and a functional social and environmental safety net. Marianne noted that

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les visées électoralistes à court terme nous amènent tous, au niveau local comme à l'échelle globale, à la catastrophe écologique, économique et sociale. Ils se mobilisent autour de la défense de l'environnement (eau, sol, air, climat) et de leur territoire… les deux étant intimement liés."

citizens opposing pipelines initially felt that "we should have confidence in our institutions. They will supervise it [the pipeline]. They will manage the security aspect, you know. They are… engineers [and] professionals; they will be careful" (Interview,[61] December 12, 2014). Optimistic that an ostensibly neutral and balanced provincial government would protect them from external threats, citizens anticipated that this fairness would carry over into government-held public consultations. However, Marianne proceeded to say that when citizens "saw what happened in Cacouna … people [said], 'Whoopsy-daisy! It's not managed so transparently or all that well after all'" (Ibid[62]).

Patrick Bonin, energy and climate campaigner for Greenpeace Quebec, echoed this frustration when he said that "[t]he role of the government is to defend the interests of the public and protect the environment, and not to make deals with polluters behind closed doors" (Interview, January 20, 2015). The compromising of the government by the prospects of increasing influxes of oil wealth nourished Bonin's and other citizens' perceptions of corruption. These undercurrents of disenchantment with government oversight of hydrocarbon extraction and transport projects are important elements in the ongoing story of pipeline resistance.

Disenchantment with pipeline governance occurs against the backdrop of austerity and neoliberal politics in Quebec. In that context, governments become as suspect as corporations, for many civil society actors. On a conference call in late spring 2016, a biologist and member of the *Regroupement vigilance hydrocarbures Québec* expressed outrage about Quebec's new hydrocarbon bill that, among other things, would grant corporations the right to expropriate land from citizens. The biologist went on to say that TransCanada Corporation was no longer the primary enemy in the pipeline fight; now, it was his own government (personal communication). On another occasion, Patrick Bonin from Greenpeace seemed to concur with that sentiment, saying that the consultation process "is completely biased, it is deficient and anti-democratic, so there are currently no places to debate [projects]" (Interview, [63] January 20, 2015). Mr. Bonin's quote reflects a disgruntlement regarding the lack of 'neutral' space for dialogue and deliberation on optimal development pathways. With the petrolization of governance, consultation has come to have a less meaningful impact on the policy process; instead, more

[61] "…il faut faire confiance à nos institutions, ils vont encadrer ça, ils vont gérer l'aspect sécuritaire, tsé… C'est des entreprises privées, c'est des ingénieurs, c'est des professionnels, ils vont faire attention."

[62] "Ils ont vu comment ça se passait à Cacouna. Les gens [ont dit], 'Oupélaille, c'est pas géré de façon si transparente et si bien que ça!'"

[63] "Le processus et complétement biaisé, il est déficient et anti-démocratique, donc y en a pas actuellement de lieux pour en débattre."

than ever, it has become a tool to manage public discord and win "social acceptability" for resource extraction projects (see Gendron and Friser, 2015, p. 5).

One member of the grassroots group *Citoyens au courant*, one of the few non-professional citizen groups that obtained intervenor status in the National Energy Board review for the Line 9 reversal in 2013—the first oil sands pipeline project through Quebec before Energy East—said the process was "structured to… discourage citizens from participating" (Interview[64], December 4, 2014b). According to another member of the same group, the process was "intimidating" and "scary," and citizens "read so much stuff that we became a lot more knowledgeable, and if anything, more determined in our position [against Line 9]. But it exhausted a lot of people, and a few people dropped off" (Interview, December 4, 2014a). The group submitted their written brief to the NEB, but no one "had the courage or the guts to go" (Ibid). The situation reveals the extent to which supposedly public and democratic consultations became dominated by expert discourses, techno-economic considerations, and public relations objectives, thus excluding citizens from taking part in governance and defining important matters of public interest.

4.4.2 Oil's Public Interest?: Oil sands as object of participatory versus managerial governance

In the omnibus and beluga cases, the government tended to favor accelerated resource extraction—or what they called "responsible resource development" (Natural Resources Canada, 2012a, para. 1)—as a more reasonable course of action than development pathways of environmental protection or clean energy transition that were advocated by various environmental groups. Consequently, despite liberal claims and citizen hopes about the neutrality of government institutions charged with oversight duties (see Patten, 2012), a constellation of factors compromised regulatory authorities, ranging from the influence of powerful corporate interests, to increasingly neoliberal extractivist policy orientations within government, as demonstrated in the preceding case studies.

The National Energy Board (NEB) was an example of such influences, having been criticized as falling prey to "regulatory capture" by oil and gas industry interests, thereby eroding public confidence in the regulator (Savage, 2016, p. 30) and compromising its primary mandate of independently regulating energy infrastructure "in the Canada public interest" (National Energy Board, 2016b, p. 9). One high-profile case highlighting the 'captive regulator' argument was that of Marc Eliesen, former Suncor board member and intervenor in the NEB's hearings for the Kinder Morgan oil sands pipeline project in British Columbia. Eliesen quit the review

[64] "…structuré pour... décourager les citoyens à participer."

panel in frustration, claiming that "…it's reached a stage where the NEB is not interested in the public interest, and more interested in facilitating the infrastructure for the oil and gas industry" (Uechi, 2014, para. 5). He concluded that the NEB was "biased," "a farce," and a "rigged game" (Ibid). On a similar note, one respondent in this research project—a man in his 60s who formed an 'environmental vigilance' group to defend against air and climate pollution from petroleum refineries in the east end of Montreal—was equally skeptical about the NEB. He said, "It is completely useless, it is fake. These are forums to manipulate the population" (Interview,[65] December 5, 2014).

Hiemstra (2013) adds nuance to the idea that the NEB is manipulating the population in his analysis of the NEB's review process, which he claims is predicated on a narrow "plausibility structure" that tends to define the public interest in terms of "techno-economic considerations" (p. 1). Furthermore, Hiemstra worries that the limited terms of 'plausibility' in NEB project assessment shape the discourse within a "symbolic universe" that ignores questions like "Why do we design modern societies to structurally demand more and more fossil fuels?" or "Why do we assume that economic growth can go on forever?" (p. 15). Drawing from Hiemstra's (2013) argument and documented concerns of regulatory capture, I conclude that the National Energy Board's (NEB) conceptualization of public interests in pipeline regulation is a narrow one, and inadequate for proper governance, notably in the face of contemporary climatic, social, and ecological challenges.

From there, it is possible to embark upon a more nuanced analysis of regulatory capture by corporate oil and gas interests. Curiously, both pro-oil sands and anti-tar sands parties have evoked their grievance regarding "broken" or "corroded" policy processes (see section 4.1 above); for the former due to administrative barriers to capitalist-led resource development, and for the latter because of the exigencies of fossil-fueled climate change and the hollowing out of democratic governance. Both senses of the term "broken" can be analyzed as a function of two fundamentally different orientations with respect to the role of the State in governance and public affairs, one based on protecting capitalist economic imperatives, and the other based on upholding scientific evidence, moral, social, and environmental concerns.

To further develop this insight, Florence Piron's (2013) discussion of the participatory and managerial conceptions of the state illustrates two distinct "plausibility structures" (in Hiemstra, 2013, p.1) from which arise two different notions of the public interest that stem from two extremes on a spectrum of styles or modes of governance. In a sense, each style of

[65] "C'est complètement inutile ça, c'est faux. C'est des forums pour manipuler la population."

governance is underpinned by a different “distribution of the sensible” which, according to philosopher Jacques Ranciere, conditions prevailing cultural perceptions of what is normal and self-evident regarding how things “can be said, thought, made, or done” (Ranciere, 2000/2004b, p. 85). Hence, what is plausible in terms of social action, along with 'top of mind' policy items, is sorted out by the specific distribution of the sensible that configures a given mode of governance, whether it be managerial or participatory. In more colloquial terms, each style comes with a set of values and expectations as to how decisions ought to be made concerning divergent interests, and what constitutes a preferred outcome, and for whom.

The managerial style regarding the role of the State in public affairs involves minimal governmental intervention and has become dominant since the “*New Public Management*” restructuration phase of public administration and public policymaking that started in the 1980s (Lane, 2000). Foucault (1979) wrote that it is a direct consequence of neoliberal aspirations to exert “political power… modeled on the principles of a market economy” (p. 131). In short, managerialism makes governments behave more like businesses. By rolling back government functions and fast-tracking resource extraction projects, the hope is that decision-making will be made more efficient, with the effect of stimulating and not harming economic growth.

Managerial rationalities extend to all aspects of society, including media and journalism. Communications scholars Raso and Neubauer (2016) analyze how “elite rationalities structure[d] public news discourse” in favor of the Northern Gateway pipeline in Western Canada, thereby “managing dissent” and attempting to influence public opinion in line with government and corporate interests (p. 115). The taming of unfavorable public opinion by managerial arrangements corresponds to the slogan of “social acceptability” (see Gendron and Friser, 2015, p. 5) in industry and government discourse as a way of constructing consensus through public relations without addressing the core grievances of dissenters. TransCanada Corporation’s (2013) report entitled “Connecting with Communities” highlights “social acceptance that is critical to ensuring we can continue to successfully develop North America’s energy future” (p. 1). The Quebec Ministry of Natural Resources (author translation, 2016) for their part recognize “social acceptability” as an increasingly integral element of successful resource development that cannot be “unanimous” (p. 12), but which is characterized by “consultation, indeed dialogue between a developer, stakeholders and citizens of a directly concerned community” (p. 9).

The words sound reassuring, yet Piron (2013) laments that the managerial (and neoliberal) state does not seek authentic consultation or co-creation of policy or development pathways with stakeholders. Instead, the neoliberal managerial state casts citizens as clients of the public

services that remain. Furthermore, managerialism runs the risk of "produc[ing] political indifference" (Piron, 2003, p. 47, my translation), demobilizing citizens and creating public consultations that are merely symbolic and lacking in substantial effects on the policy process. In short, Piron (2013) thinks that managerialism "depoliticize[s] citizen participation" in public debates (p. 93). Arguably, that trend is reversed, to some extent, with the pipeline debate, where civil society mobilized around threats to the environment and to democratic institutions by petrolization. Provincial opposition party *Parti Québécois* (PQ) members of parliament and activists alike deplored "bogus [public] consultations" (see Massé, 2015, para. 2, my translation), denouncing government-led forums for which the dominant vision of development is often in line with capitalist interests, particularly those of the oil and gas industry.[66]

In contrast to managerial approaches to pipeline governance, there is what Piron (2013) calls "participatory governance," which seeks to "favor the political expression of citizens" (p. 98), and does not seek to govern public affairs like businesses. Advocates of 'participatory governance' expect the State to fill the role of overarching legitimate and just arbiter to mediate social conflicts regarding, as political scientist Harold Lasswell's pithily wrote in the title of his classic book, "*who gets what, when [and] how*" (1950). As such, institutions of the State would be mandated to directly intervene in the economy and set collective priorities based on democratically decided objectives.

In his discourse analysis of key ENGO documents, Rene Audet (2015) argues that ENGOs active in the anti-pipeline debate tend to expect the State's role in environmental and economic matters to be an "*aménagiste en chef de la transition,*" or chief planner or umpire in society's transition to sustainability. For example, as chief planner, the State's role would be to directly intervene in the economy and society, informed by evidence-based policy and the need to balance various interests and priorities. In that approach, the responsibilities of government with respect to regulation, mediation, and arbitration contrast significantly with those of private business; the latter's primary social role is, conversely, to "supply us with goods and services" (Marques and Mintzberg, 2015, p. 10). Because of the distinctly political nature of their role in society, a government modeled after the marketplace is therefore at loggerheads with the idea of 'participatory governance'.

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[66] N.B.: The phrase "*consultation bidon*" by which I translated "bogus consultation" has another meaning than bogus; "*bidon"* literally means "drum" or "can." So, Massé's choice of the word signifies his belief that pipeline public consultations were not only a sham, they were also dominated by petroleum interests—i.e.: the oil drum.

The theorization of two broadly differing styles of governance—managerial and participatory—was undertaken to elucidate some of the tensions between government approaches to pipeline review and citizen expectations of democratic process. In the pipeline debate, deep tensions between managerial and participatory modes of governance come to the surface, exposing two conflicting orientations for the resolution of environmental problems. Government actors attempt to manage environmental and social factors to preserve the conditions for continued capitalist accumulation, whilst also seeking to maintain an acceptable level of public safety and economic benefits for the population. In contrast, citizens involved in the anti-pipeline movement decry the compromising of both institutional governance and ecological functions by capital and oil, expecting instead a set of democratic rules to ensure the proper representation of their interests—and an increased incorporation of long-term climate and environmental considerations into governance. The clash between managerial and participatory styles of governance explain some of the social frictions in the pipeline debate.

Through the preceding analysis, it hopefully became clear that the undermining of social and environmental governance institutions by petrolization and neoliberalization constitutes a major grievance in the pipeline debate. In short, the omnibus and beluga cases reveal a latent neoliberalization of governance and the squeezing out of citizen participation, whereby the prevailing social conventions regarding governance are increasingly compromised by corporate interests to extract oil for profit. At the same time the depoliticization of governance through neoliberalism was counteracted to some extent by increased political action by pipeline opponents. The next chapter explores how anti-pipeline critiques and actions renew possibilities for citizen engagement, examining how the shared threats to climate and democratic governance from unconventional oil compel citizens to become an increasingly active force in contemporary environmental politics.

Chapter 5: Infrastructure, citizenship and anti-pipeline politics

The purpose of this chapter is to clarify the relationship between 'citizens' and petroleum infrastructure, and how together they have galvanized the anti-pipeline debate. Just as Barry argues that environmental risk leads to the active revelation of infrastructure as an object of politics instead of its passive backdrop (2013), it also potentially leads to the emergence of renewed civic possibilities in the wake of the depoliticizing thrust of neoliberalization. Within the context of emerging environmental risks that affect people directly or indirectly, new forms of citizen engagement have emerged in Quebec. Citizens volunteer hours of their week to educate their neighbors about the risks of oil/tar sands pipelines, sending letters to the editors of their local newspapers, or participating in political protests; these acts go against the grain of prevailing trends whereby citizens' obligations to their communities are framed strictly in terms of paying taxes, voting in elections, or buying goods and services to stimulate the economy. Participating in anti-fossil fuel social movements, citizens are drawn out of their everyday routines of work and private life to collectively defend against perceived threats. Furthermore, perceiving that their grievances and concerns are not given sufficient attention by a managerial state whose obligations are framed primarily in economic terms, citizens take political action and increasingly work in concert with environmental organizations and other civil society groups resisting pipeline projects.

In this chapter, I delve further into interview data, media coverage, and NGO and anti-fossil movement discourse from websites, which I read alongside elements in the social scientific literature and political ecological theory dealing with environment and energy. The analytical goal is to unpack citizenship discourses within the anti-pipeline argument. By refusing tar sands pipelines, anti-fossil fuel groups seek to cast doubt on the wisdom of maintaining the petroleum intensive status quo while also emphasizing the need for a socio-technical and cultural transition to renewable and more just modes of energy production. By putting citizens—not just as members of a nation-state but as people who "are Nature" (Elan Global, 2015)—back at the center of governance considerations, anti-pipeline struggles push back against neoliberal politics and economics. In that context, oil infrastructure projects come to affect and define discourses and practices of citizenship and governance in the Anthropocene. Infrastructure, then, becomes a central lens through which to understand the emerging possibilities of environmental citizenship in a petroleum dominated world.

5.1 Knowledgeable citizens against oil: Information politics

In the struggle against pipeline projects, information can act as a mobilizing force. Keck and Sikkink (1999) call this "information politics," or "the ability to move politically usable information quickly and credibly to where it will have the most impact" (p. 95). André Bélisle's work with the *Association Québécoise de lutte contre la pollution atmosphérique* (AQLPA)—an organization active in the pipeline debate—provides an example of information politics. Testament to this was his description of the goal of the organization: to "inform them [citizens]… but after that, hope that they rise up and defend their territory" (Interview,[67] January 17, 2015). The information campaign of the Montreal-based organization *Équiterre* accomplished just that, leading to the formation of many grassroots citizen resistance groups in Quebec, including seven "*STOP Oléoduc*"[68] groups in Eastern Quebec and an almost equal number of groups within the *Coalition Vigilance Oléoduc* in Western Quebec.[69] These groups—which I call 'hydrocarbon vigilance citizen committees'—were comprised of unpaid citizens who were brought together by the shared threats of by the petroleum industry.

The formation of such 'citizen committees' clustered around the *Regroupement Vigilance Hydrocarbures de Québec (RVHQ),*[70] a volunteer-run umbrella network composed of dozens of anti-fossil fuel groups. The network provides an interesting example of information politics. Many of the original member groups of the RVHQ formed during the shale gas debate in Quebec when anxiety about the potential threats to drinking water and the environment galvanized a social movement which led to the eventual obtainment of a moratorium on fracking in the St-Lawrence Valley. Towards the beginning of the saga in September 2009, the *Association Québécoise de la Lutte contre la Pollution Atmosphérique* (AQLPA) called a press conference demanding that the Quebec government "inform the population" about the potential environmental risks from shale gas extraction (AQLPA, 2009, para. 1, my translation). The government gave no substantial reply. A year later, concerned citizens in the St-Lawrence Valley, the primary Quebec region targeted for shale gas exploitation, began mobilizing when it became apparent that the government was not heeding the AQLPA's demand. "Pierre," a founding member of the RVHQ, explains,

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[67] "… les informer de notre opinion par rapport au dossier, mais après ça, espérer que le citoyen se lève et défendre leur territoire."

[68] www.stopoleoduc.org

[69] https://www.facebook.com/CoalitionVigilanceOleoduc

[70] RVHQ, roughly translated as the The Grouping of Hydrocarbon Vigilance of Québec.

> In August 2010, [energy and natural resources] minister Arcand held a press conference…where he said, 'The government will give information to the citizens of Quebec, don't worry.' … The BAPE [the *Bureau d'audiences publiques en environnement*, a provincial environmental review board] started in the month of September, October, and there still wasn't information from the government given to anyone. The BAPE hearings come and go, we're in the month of December, we wait until January [and] there's still no information given by the government. There's no website; they did it on purpose! We had a team that phoned the Environment Ministry regularly to ask questions, and the civil servants said, 'Well, look, we cannot answer you on that, we're not an information (*renseignement)* service.' Then we told ourselves, if the government will not do the job of informing the population, we'll do it ourselves" (Interview, January 6th, 2015).[71]

Pierre made trips to dozens of communities, giving presentations on shale gas extraction to concerned citizens and farmers, almost entirely self-funding himself in the process. Both the *RVHQ* and *Équiterre's* information campaigns attempted to "gain influence by serving as alternative sources of information, [by] interpret[ing] facts and testimony" (Keck and Sikkink, 1999, p. 95). However, "activist groups frame issues simply, in terms of right and wrong, because their purpose is to *persuade* people and stimulate them to take action" (Ibid, p. 95-96). The emergence of 'hydrocarbon vigilance' citizen committees that put potentially harmful oil projects into question occurs for, and because of, the dissemination of information about risk. The narratives they propagate interpret data, expert opinion, lived experiences and fears in sometimes simplistic terms to construct a moral argument to mobilize citizens in opposition.

Scholar Darin Barney (2013) adds another nuance to anti-pipeline narratives. He claims that such narratives tend to unfold within a "liberal democratic politics of publicity" that is marked by contests of reason, arguments and interests, whereby anti-pipeline groups attempt to marshal evidence and information to influence opinion and policy-makers. Barney's assertion helps explain the sometimes-sensational discourses surrounding "dirty oil" from the tar sands; the goal

[71] …en aout 2010 le ministre Arcand avait fait une conférence de presse… Là il avait dit, le gouvernement va donner de l'information aux citoyens du Québec, inquiétez-vous pas… le BAPE commence au mois de septembre, octobre, et il n'y a toujours pas d'information de la part du gouvernement du Québec qui ne se donne à personne là! Là les audiences du BAPE ça passe, là on est rendu au mois de décembre… on attend jusqu'en janvier, en janvier il y a toujours pas d'information qui se donne de la part du gouvernement, il y a pas de site internet, eux autres ils faisaient exprès, on avait une équipe qui téléphonait au ministère de l'Environnement régulièrement, poser des questions, pis les fonctionnaires disaient : "Bien, écoutez, on ne peut pas vous répondre là dessous, on est pas une service de renseignement." Pis là on s'est dit, si le gouvernement ne fait pas le job d'information la population, nous autres on va le faire

of such statements is to inspire action based on moral outrage or fear of risk, rather than to necessarily cultivate critical analysis. In some cases, movements can do both, providing alternative information apart from government and industry, while also telling a compelling tale of environmental citizenship, thus building power and capturing the hearts and minds of the public in significant ways.

5.2.1 Concerned citizens against oil: The politics of obligation

While the pipeline debate has spurred the sharing of information and scientific opinion on the matter, personal testimonials of concerned citizens are coming to the fore. Social resistance to pipelines, increasingly mobilizing everyday people, is, I suggest, leading to novel forms of citizenship. Political scientist April Carter (2013) suggests that "citizenship implies a legally and politically defined status, involving both rights (guaranteed by custom or law) and corresponding responsibilities" (2013, p. 6). In modern society, legal and political rights and responsibilities of people tend to be narrowly defined, through such categories as consumer, taxpayer, or voter. These identities almost invariably get enrolled in larger political and economic projects of uneven, fossil-fueled capitalist accumulation. Reflecting upon the narrow constraints that often define modern citizenship primarily in terms of rights and entitlements, Smith and Pangsaya (2012) write that such a conception is "a by-product of the Western liberal democratic pre-occupation with market-based claims to ownership" (p. 24).[72] Moving beyond liberal and economistic terms of citizenship, Smith and Pangsapa suggest that, with respect to environmental conflicts, citizenship is best seen as "a contested space for a variety of identity construction projects that shift the focus from a fixation with rights to a concern with some combination of entitlements and obligations" (2008, p. 24). As "Catherine," an activist with the *Stop Oleoduc* movement, said, "Our governments must take on their responsibilities. It takes a plan to reduce our oil consumption, but we need to stop talking about it and do it" (Interview,

[72] Similarly, Thobani (2007) claims that, in spite of its promise for the renewal of bottom-up political action, the term "citizenship" – as it is deployed to better understand social struggles – may be considered problematic within the context of the settler colonial nation-state of Canada. There are at least two reasons for this. First, if too much emphasis is placed on the rights of citizens, this jeopardizes a potentially more effective politics of obligation regarding the duties and responsibilities of citizens and institutions to living beings, systems and environments. Second, the recruitment of citizens to solve environmental problems risks effacing the historical responsibilities of governments and corporations to clean up pollution or to redress social injustices that were often caused by their policies and actions in the first place. Regarding the second point, Thobani insinuates that Canadian national identity projects like multiculturalism have effectively racialized class domination and erased settler colonialism from the national imaginary and the national history (2007).

December 12, 2014). In calling on governments to take policy action on fossil fuels and climate change and emphasizing government obligation to do so, Catherine broadens the meaning of "governance" to include ecological functions and social processes that contribute to human health and well-being. She claims certain entitlements with respect to clean water, air and a healthy environment, but more importantly, she also emphasizes that the government is obligated to consider the environmental and social impacts of continued adherence to the fossil economy.

I met "Mary," a mother of two who meets regularly with a local group in a small Quebec town that opposes the Energy East pipeline, which would run through their region. Mary told me that she began meeting with concerned residents in her area who were preoccupied about risks to their drinking water, health, housing investments, and to some extent, the climate. The group initially formed after an information session given by the ENGO *Équiterre* in 2013 about the oil sands pipeline project Line 9 that preceded the larger Energy East project. After the initial information session, Mary's group continued to meet on its own, organizing several public information sessions and documentary movie screenings to raise awareness about the Energy East pipeline. Group participants also passed around flyers in their community that summarized their concerns about the pipeline project—climate change was present, but it was not the central feature, in contradistinction to the city-based ENGO campaigns for which climate change tended to be a key feature. Genevieve Puskas from *Équiterre* who organized the information session in Mary's community highlighted this key difference between urban and rural anti-pipeline claims: "In urban areas, talking about climate change is what gets to people. When you're out in Bas-du-Fleuve [the Lower St-Lawrence region], like no, like the river, like our land, our water, like the water we're drinking" (Interview, November 30, 2014). In those rural regions, peoples are concerned about the land and water. While the specific object of concern is different—clean drinking water or a stable climate—the core grievance remains the same regarding irresponsibility. "The last pipeline they [the company] built spilled twelve times in the first year," Mary said, and with the high risk of "poisoning people's water," she wondered why the regulatory authorities would "accept… a pipeline from a company with such a track record" (Interview, December 4, 2014). In so saying, Mary raised the government's obligations to protect people's water, casting suspicion on the company's rights to transform the landscape in such fundamental ways.

Mary and her group's concerns regarding pipeline safety were echoed in the media. Compiling Canadian pipeline incident data from the National Energy Board, the Canadian Broadcasting Corporation (CBC) published a map representing spill volume and frequency; the

report found that "overall pipeline incidents" had doubled since 2000 (Hildebrandt, 2013, para. 4). Reports of that nature fostered a perception of public mistrust among some citizens, including Mary and her group, for whom the project represented a grave risk to their water and environment. And they were not alone. Across Quebec, dozens of such groups formed,[73] grouping together hundreds of people who decided to take an active political stance on the pipeline issue, largely because "citizens felt abandoned" by the authorities (Simard, Interview, November 24, 2014). Mistrust regarding government shirking its environmental and social obligations was central to those grievances. Andre Belisle said, "We cannot blindly trust institutions. We need to participate… but if are too trusting, and we don't concern ourselves with these questions, well, in fact, we will be completely conned" (Interview,[74] January 17, 2015).

Concerns regarding risk, along with a significant public mistrust of official oversight, bound the people discussed in this thesis together into a loose, trans-local network of hydrocarbon vigilance committees that formed an important part of the anti-pipeline movement. Both professional environmental organizations and grassroots citizen groups participated in promoting alternative information about, and mobilizing social resistance against, oil sands pipelines. Examples of action in this network include *Équiterre*'s 2013-14 provincial tour of potentially affected communities to raise awareness about TransCanada's Energy East and Enbridge's Line 9 projects, and a 2016 book tour organized by the *Fondation Coule Pas Chez Nous* and the publishing house *Écosociété* in eight locations with Eric Pineault, author of the "Energy East Trap." Most frequently, such actions provided alternative analysis, information, and expert opinion. Yet, a recurring theme at the center of anti-pipeline discourse moved beyond market rights to private property, to encompass broader claims of entitlements and obligations. Therein, anti-pipeline social action revealed new roles and possibilities for citizenship in debates about energy futures and the need for social conventions and governance more adapted to, and responsive of, the climate-constrained world of the Anthropocene.

5.2.2 The "citizen awakening" in the anti-pipeline movement

As people and organizations mobilized people to refuse pipelines in various ways—such as attending rallies to pressure government for climate policy action, or raising awareness about how to participate in government consultations and corporate pipeline information events—a new political community emerged. André Belise from the AQLPA referred to this as an "*éveil*

[73] See the website of the *Regroupement vigilance hydrocarbures du Quebec* for a list of citizen committees, https://www.rvhq.ca/.

[74] "[O]n ne peut pas faire confiance aveuglement aux institutions. Il faut pouvoir participer… [m]ais si on fait confiance, pis qu'on s'en préoccupe pas de ces questions-là, bien non, on va se faire avoir."

citoyen" or citizen awakening (Interview, January 17, 2015). Through the reactivation of citizen participation in the decision-making process surrounding pipelines, people began to 'wake up' to the petrolization of governance. Granted, citizens rarely defined the terms and parameters of the pipeline debate. Governments organized consultations, the mainstream media reported stories about the pipeline without considerable critical analysis, and the pipeline companies' information sessions were essentially public relations exercises to manufacture public consent. Nevertheless, citizen engagement in the pipeline matter led to an active identification of citizens with the maximum of rights and responsibilities accorded to them, thereby pushing the limits of existing environmental governance, and drawing significant public attention to the issue. Much of this was accomplished through participating in anti-pipeline campaigns, letter-writing, protest, organizing public conference, contributing to public consultations, and communicating with journalists.

Through these engagements, citizens became an active part of the pipeline issue itself. Geneviève Puskas, who worked extensively in promoting critical environmental perspectives regarding the pipeline, asserted that citizens' resistance against pipelines was a "…new way of showing that citizens know what they're doing... they are not just passively receiving the pipeline project; they're actually taking active part in it" (Interview, November 30, 2014). A consultant in the movement, who spoke on condition of anonymity, emphasized how some retirees participating in hydrocarbon vigilance committees developed knowledge about pipelines that, in some cases, surpassed the knowledge of professionals working for environmental organizations.

Overall, by publicly emphasizing the need for governments and corporations to take active responsibility in the twin issues of fossil fuel emissions and environmental change, citizens gained confidence in their capacity to take political action. Referring to the organization of a press conference with citizens concerned about tar sands pipelines, "Yvette" from the *Coalition vigilance oléoduc* remarked that citizen participation was initially very timid, lamenting that "We can't do this, we're just citizens," feeling as though they needed environmental organization leaders to be present at the press conferences "because [of] a lack of confidence, [and a] lack of thinking they didn't have enough knowledge compared to those people who work professionally on the topic" (Interview, November 27, 2014). However, the press conference to which she referred was deemed a success, and citizen organizers "felt empowered" (Ibid). Realizing "that their voice was important," and that although "we don't have all the technical knowledge and the numbers, we can speak from our experience, like how we are attached to our land" (Ibid). Speaking in terms of lived experiences of anxieties and concerns, rather than

numbers and statistics, citizens' anti-pipeline claims could directly address issues of obligation and build power to potentially shape the course of environmental governance in Canada. In that way, they drew environmental and pipeline politics beyond their traditional mainstays of rational argumentation and professional expertise.

A key moment of power-building occurred with the anti-pipeline movement in Quebec, in November 2014. Citizen groups engaged in resistance against oil sands pipelines in Quebec achieved public recognition and gained a degree of financial autonomy when author/activist Gabriel Nadeau-Dubois initiated a crowdfunding campaign on national television (Radio-Canada, 2014a). Upon receiving the Governor General's prize for his book, *Tenir Tête* (2014), Nadeau-Dubois announced he would donate the twenty-five-thousand-dollar prize to a loose network of potentially affected citizens that had been publicly voicing their disgruntlement about the projected passage of the Energy East pipeline through their lands or near their homes.

Many of the groups were part of a provincial network of 'hydrocarbon vigilance' citizen committees, the *Regroupement vigilance hydrocarbures du Québec,* as well as a related grassroots groups campaign to raise awareness about oil and gas issues in Quebec, *Coule pas chez nous* (see www.coulepascheznus.com). With an invitation to Quebeckers to "*doubler la mise,*" or 'double down on the bet', the campaign far surpassed its goal of doubled Nadeau-Dubois' seed contribution of 25 thousand dollars. In total, almost $400,000 Canadian dollars were raised from roughly ten thousand Quebeckers to support citizen struggles against oil extraction and transport in the province. The massive influx of cash, while paling in comparison to an oil corporation's financial resources, nevertheless permitted citizen groups more autonomy in funding their advocacy campaigns.

Nadeau-Dubois, who gained notoriety as spokesperson for a radical student union during Quebec's 2012 student protests against tuition increases, has since then become a popular voice in Quebec leftwing politics. His successful fundraising campaign for anti-pipeline groups revealed the extent to which citizen indignation regarding the oil sands industry's activities in Quebec resonated with many people. The campaign's rationale is also worth exploring to show how broader claims of environmental protection and social transformation underpin anti-pipeline politics. A few months prior to his appearance on national television, at the Peoples' Social Forum in Ottawa, Nadeau-Dubois explained how supporting grassroots anti-pipeline action was consistent with his ideology of social transformation, asserting that one cannot concretely struggle against an idea or a system (such as crony capitalism or fossil-fueled hyper-consumerism), but only against a specific measure or tangible project. In this case, the target of the struggle to re-make society was the Energy East pipeline. Furthermore, Nadeau-Dubois

emphasized that through such public struggles, a form of class consciousness is constructed, one that reflects how reactions to common threats like pipelines first lead to the mobilization of resistance, secondly to deeper analysis and broader understanding of the various dimensions of the issue, and thirdly perhaps to a nascent form of ecological collectivism.

Perhaps this is what Ulrich Beck (2015) meant when he wrote that "communities of climate risk" espouse a "cosmopolitan perspective" that moves beyond the confines of the nation-state and liberalism (p. 76). As Beck asserted, the politics of environmental risk fuel the formation of new class relations based on anxiety about risk affliction (Beck et al., 2013; Beck, 1992). Risky and uneven social relationships can give rise to social movements like the anti-pipeline struggles—though they do not always, as Gaventa (1982) documented regarding the quiescence of rural people in the face of harms from the coal mining industry. Although the surge in public opinion against pipelines, especially in the case of ten thousand people giving almost half a million dollars to citizens in defense of the commons, sounds positive and encouraging, it is in some ways the reflection of troubling trends with democratic governance. In the next section, I analyze how the erosion of democratic processes conditioned social resistance regarding pipelines.

5.3.1 "The semblance of democracy" in the pipeline debate

Along with the arrival of oil sands pipelines in Quebec came what Nature Quebec director Christian Simard described as "…a very strong propaganda system that controls the mass media, that controls advertising of which I have never seen the strength— [and it is] everywhere!" (Interview,[75] December 14, 2014). Pipeline companies' efforts to convince the Quebec population of the merits of their projects through media marketing campaigns are often the only exposure most people had to the project. Democratic forums to publicly deliberate all aspects of the project were rare, echoing some of the trends of de-democratization of governance that are observed in the social science literature (see Fraser, 2015; Crouch, 2011; and Streeck, 2011). In this section, I analyze how the present modes of pipeline governance tend to exclude citizen participation, and how that in turn shapes their resistance.

With growing pressure from industry to diversify bitumen markets away from the U.S. and "access tidewater" (e.g. access foreign markets), former World Wildlife Fund Quebec Director Marie-Claude Lemieux said that "[w]e saw to what extent [oil and gas] companies felt at home to

[75] "…un système de propagande très fort, qui contrôle les grands médias, qui contrôle une publicité dont je n'ai jamais vu la force, partout là!"

arrive on your doorstep, to drill [and] to endanger our groundwater" (Interview,[76] November, 2014). The indignation to government-supported actions, such as granting TransCanada permission to drill in endangered beluga habitat, was palpable while carrying out interviews with members of the anti-fossil fuel movement. Founder of the environmental organization the *Association Québécoise de lutte contre la pollution atmosphérique,* André Belisle, emphasized that the anti-pipeline struggle was primarily over the "right to decide how our communities will develop" (Interview,[77] January 17, 2015). Belisle continued to say that

> We are the electorate, so we need to give our opinion[s], and we need to take position, defend the interests of our communities, because we don't want to wait for petroleum companies to take up the defense of our communities, eh? Those people, they will defend their interests (Ibid[78]).

Belisle's stance reflects a skepticism of top-down, technical, or market-based solutions, instead preferring more space for citizen participation. But, perceiving that they do not have a say in the direction of the development of their communities, citizens grasp for handles on the policy process that will help them draw attention the looming sustainability crisis of fossil-fueled consumer capitalism.

To illustrate this feeling of alienation from the policy process, "Claude," a prolific grassroots environmentalist who has been active in various ecological struggles in Quebec over the past fifteen years, said, "The role [of citizens]? It's that we have less of a role, that's the problem" (Interview[79], January 28, 2015). The omnibus and beluga cases were two examples of a neoliberal extractivist policy turn that was subject to neither democratic rule nor popular consultation. Since then, citizen and environmental groups were increasingly disenchanted with governance, qualifying pipeline review processes as "anti-democratic" on several occasions (Réseau Québécois des groupes écologistes, 2016). "Catherine," anti-pipeline activist with the grassroots anti-pipeline network STOP Oleoduc, said that the pipeline "reveals the state of democracy in Canada: It's not strong!" (Interview,[80] December 12, 2014). Such statements point

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[76] "On a vu à quel point les compagnies se pensaient chez elle, d'arriver chez vous, pour forer, pour mettre en danger notre nappe phréatique."

[77] "… le droit de décider comment nos communautés vont se développer. "

[78] "… on est des électeurs, alors on doit émettre notre opinion, et on doit prendre position, défendre les intérêts de nos communautés, parce qu'on ne veut pas s'attendre à ce que des compagnies pétrolières prennent la défense de nos communautés, eh? Eux autres vont prendre la défense de leurs intérêts."

[79] "Le rôle [des citoyens]? Cest qu'on en a moins de rôle, c'est ça le problème."

[80] "…ce projet-là révèle de l'état de la démocratie au Canada : c'est pas fort."

to the existence of a perception that some citizens feel like their voices and concerns are drowned out in the public sphere by the massive interests of petro-finance.

In the wake of the social and environmental changes of the 20th and 21st centuries—changes so profound that even Earth scientists have proposed a new geological epoch, the Anthropocene (Crutzen, 2006)—governments have not changed in consequence, and still predominantly rely on top-down, managerial processes to govern humans and their environments, instead of more participatory arrangements as discussed in the previous chapter. For example, the legislative overhaul described in the previous chapter diminished the place of citizens in the National Energy Board's pipeline approval process. The effect was the restriction of public participation to specialists offering "relevant information or expertise" or people "directly affected by a specific project"—where 'directly affected' was defined in narrow terms of residence on, or ownership of, the immediate physical footprint of a pipeline project (National Energy Board, 2015). In the words of one anti-pipeline activist, "Because of the omnibus laws C-38 and C-45, we found that citizens no longer have any legitimacy to the possibility of presenting a real defense in an honest fashion" (Interview[81], December 15, 2014). Others gave similar testimonials. "Jean-Marc," an activist from the *Coalition Vigilance Oléoduc* who participated in the federal consultations for the Line 9 pipeline, revealed his disenchantment with public consultation process when he said that "[i]t is the semblance of democracy, and so because of that we no longer want to waste our time [on it]" (Interview, December 5, 2014). And as people witnessed the potentially catastrophic changes to their environments, the global climate, and governments themselves, they resented the sidelining of their participation. For them, hinted at by the words of Christian Simard from *Nature Quebec* and Catherine from *STOP Oléoduc,* the pipeline debate was marked by 'a very strong propaganda system' versus a 'not so strong' democracy. Lacking a genuine democratic forum, those 'citizens' congregated around the pipeline as a concrete symbol of their antipathy for the risks and excesses of the fossil economy and petro-politics.

5.3.2 Hitting the wall: Citizens against petro-capitalist dominance

By now, it should be apparent to the reader that the anti-pipeline argument involves more than merely environmentally conscious stakeholders pushing back against the threats of environmental degradation from what they see as 'dirty oil' projects. Underneath, there exists a discourse that is vociferously critical of neoliberal cultures of governance and everyday life,

[81] "À cause des lois mammouth de c-38 et c-45, on trouvait nous qu'il y avait plus de légitimité de la part de citoyens à pouvoir présenter une vraie plaidoirie, de façon honnête."

even if it is not always explicated as such. “Catherine,” a member of the *STOP Oléoduc* citizen group, points out that:

> [t]he conclusion we come to is that we are all facing a wall… that we’ll hit very soon. We see that it’s not working anymore, that there is something that just doesn’t work in our society. In fact, it’s capitalism that is put into question in a very global way… [T]he pipeline is just one element among many others that these mostly foreign companies do to make a profit to the detriment of the local population (Interview,[82] December 12th, 2014)

Catherine, described above, resides in one of the Quebec towns that will be traversed by the Energy East pipeline project, and she has come to occupy an important role within the province-wide network of pipeline resistance, assuming key tasks of communications and coordination. In Catherine’s view, pipeline resistance is justified due to her conviction of the harmful impacts that will emerge from the pipeline project. Identifying the proposed pipeline project as being merely one aspect of a broader system of exploitation that benefits a few “foreign companies” to the “detriment of the local population,” for Catherine, the pipeline is the extension of a material and ideological infrastructure that feeds a global capitalist supply chain generating wealth for a few whilst producing substantial risks for living systems.

During a focus group conducted in this study with a volunteer citizen group fighting against pipeline projects in their community, a woman summarized her concerns regarding the criteria by which pipelines were being approved and the stakes involved:

> The debate, in my opinion, is nearly planetary. Because it is the realization of citizens of their power and, on the other hand, that we are fed up that we are still controlled by Big Money… without consulting the population. They impose things that are commercially fantastic, but in terms of the life of all the people, it is not good (Interview,[83] December 4th, 2014).

Like Catherine’s response regarding capitalism, the quote reveals disgruntlement about the lack of democratic processes in decision-making and the uneven distribution of risk and benefit. Citizens deplore the logic behind the contemporary approval of infrastructure construction by

[82] “On est tous face à un mur…qu'on va frapper très prochainement. Et ça fonctionne plus, il y quelque chose qui ne marche plus dans nos sociétés. En fait, c'est le capitalisme qui est remis en question de façon très globale.”

[83] “Le débat, à mon sens à moi, il est quasiment planétaire. Parce que c'est la prise de conscience des citoyens de leurs forces et d'autre part, l'espèce de ras-le-bol qu’on est toujours contrôle[r] par des grands monétaires… sans consulter la population. Ils nous imposent des choses commercialement très fantastiques, mais au niveau de la vie de tous les gens, c'est pas bon.”

authorities, claiming that it should be primarily indexed to public health and environmental integrity, rather than exclusively market-oriented imperatives.

Anti-pipeline politics—motivated by the vision of a "fossil free" future (Grant, 2015)—clashes with the dominant political economic push for carbon intensive megaprojects like Energy East. Canadian scientist, activist and broadcaster David Suzuki describes the clash between pro-oil and anti-oil positions within the pipeline debate as a "battle of mindsets [against] the dominant worldview" (cited in VancouverObserver, 2014). On the one hand, the dominant discourse features an extractivist development path with an emphasis on fossil fuels—marked by what Nature Quebec director Christian Simard described as an "ideological hardening" (Interview,[84] November 24, 2014). On the other hand, anti-pipeline advocates push for 'softer' or 'lighter' approaches to energy and resource development, involving renewable sources of energy and more sustainable modes of production and consumption. The friction of the clash between pro-oil and anti-oil stances results, amongst other things, from differing interpretations of the risks of bitumen production and the value of maintaining the status quo of consumerism. While these frictions have contributed to a debate about pipelines that has been contentious and at times "dirty" (Interview with Simard, November 24, 2014), the issue nonetheless has the potential to call forth new political subjects that challenge their status as mere "private market consumers" and clients of a shrinking welfare state (Fraser, 2015, p. 173), thereby conditioning new possibilities for public participation in post-carbon governance.

5.4 People power for a post-carbon approach to climate and energy

Discourses appealing to economic growth, deregulation, privatization, and job creation remain strong, yet their grip on the public imagination seems to be faltering, and popular critiques of capitalism like the one quoted from Catherine in the above section are gaining traction in the public imaginary. One anti-pipeline activist, one of the few in Quebec who engaged in direct action involving the manual shutdown of the Line 9 oil sands pipeline (Shields, 2015), bemoaned that the public is

> ...stuck with multinationals, who impose themselves on the territory, like we see also here in Quebec with mining companies and pipelines, and all that. For me, it is all connected. In my mind, there are no separate compartments, it is a whole. It is a global battle for the planet (Interview, December 15, 2014).

But is it enough to foster the conditions of possibility for a decarbonization of the domestic, much less global, energy system? In the Paris climate agreement, member states of the United

[84] "… durcissement idéologique."

Nations agreed to the vague target of “reach[ing] global peaking of greenhouse gas emissions as soon as possible” (United Nations Framework Convention on Climate Change, 2015, p. 4), whereas social movements pushed for 100% decarbonization of the world’s energy systems by 2050 (see www.100possible.ca). By putting pressure on obsolete governance institutions and ecologically oblivious corporations, anti-pipeline social movements usher forth a space of contestation of the dominant discourse of fossil-powered economics. In so doing, they bring an important debate to the mainstream about how exactly society is going to significantly reduce fossil fuel use and production, and what a post-carbon world could look and feel like.

The anti-fossil fuel movement is also an example of how power to shape political agendas and economic development can emerge from below, or what Horowitz (2012) calls the “marginal, interstitial spaces” (p. 30), outside of official circles and government parliaments. Climate activists, whose primary target has tended to be fossil fuels, over the first years of the 2010s, increasingly called upon “people power” (Friends of the Earth Europe, 2015) as a means of pushing policy action on climate change. Through the idea of ‘people power', anti-fossil fuel and climate movements use various strategies to muster the power—through rational argument, emotional appeal, political pressure, and rejection of infrastructure—to transform aspects of governance for a changing climate.

That said, the precise shape and form of a post-carbon world, is unclear. Despite this uncertainty, civil society continues to propose enormous leaps away from fossil energies, as described the seminal “Leap Manifesto” campaign (The Leap Manifesto, 2015). Initiated by the celebrated author and activist Naomi Klein and her allies, the Leap Manifesto was written during a two-day workshop in Toronto, Canada by prominent representatives from “Canada’s Indigenous rights, social and food justice, environmental, faith-based and labour movements” in Spring 2015; since that time more than forty thousand people have signed (Ibid). The manifesto—subtitled “a Call for a Canada Based on Caring for the Earth and One Another”—called for deep, systemic changes to the country’s governance in the direction of collective control of clean energy systems, respect for Indigenous sovereignty of traditional territories, relocalization of economies, and other measures to create ecological production and consumption systems (Ibid).

Calls for a fairer economy and cleaner energy production were also heard in Quebec's “*Élan Global*” (translation: Global Momentum), another anti-fossil fuel manifesto that was launched in April 2015 (Manifeste pour un Élan Global, 2015). The *Élan Global* was led by ENGOs and a handful of public personalities and intellectuals in anticipation of Earth Day 2015 and the Paris climate talks. It demanded

> …an end to hydrocarbon prospecting and extraction on Québec territory. We reject the transport of oil across our territory for the purposes of export, whether by train, pipeline or tanker; [followed by a few more specific demands]. The tools for ecologizing and humanizing the economy are at our disposal; we have the means to begin the transformation. Let us therefore mobilize our resources and talents for the preservation of the planet and the empowerment of its human inhabitants. Together, let us build a different model, one that leads to a brighter future (Manifeste pour un Élan Global, 2015, my translation).

Through these collective manifestos and petitions, oil and fossil fuels emerge as primary objects and symbols of social resistance of corporate domination and environmental degradation. That said, the above quote from the *Élan Global* suggests that the battle against petroleum dominance, more than just a negation of extractivist policies and projects, aims to foster the conditions for the emergence of a "grand ecological transition for our economy" (Manifeste pour un Élan Global, 201, my translation). From the perspective of Rancierian politics discussed in chapter two, the increasing demands for the "ecologisation" of society (Latour, 2007, p. 265) and decarbonization of energy systems from social movements might be seen to constitute a breach with the petro-centric truth regime of modern politics, economics, and everyday life. In short, not only society's built infrastructure and financial flows depend on the production and consumption of massive amounts of fossil fuels; the normalization of petroleum use shapes the very texture of life, culture, and human relations. To transform that stubborn material reality and usher in an 'ecological economic transition,' social movements must find concrete projects and measure upon which to latch and against which they can make their alternative claims. Oil sands pipelines and their unintended consequences provide a lever to widen and amplify that breach. The issue convenes, as mentioned above, a diverse assembly of social actors, from environmental organizations and grassroots citizen groups to town mayors and indigenous people. While the ideologies and politics of each individual actor group are often widely divergent, in their contestation of the status quo and carbon-intensive mode of dividing up the commons, the voices of fossil resistance plead to be deemed legitimate in the governance of these matters. The next section explores the role of two key citizen responses, NIMBY (Not In My Backyard) and NOPE (Not On Planet Earth), in shaping novel forms of citizenship emerging from the Energy East pipeline debate.

5.5 From NIMBY (Not In My Backyard) to NOPE (Not On Planet Earth): Redoing citizenship for the Anthropocene

It is important to note that while awareness of pipeline risk among citizen groups may have arisen because of proximity of the pipeline to inhabitants' lands, actual engagement in the

pipeline resistance movements extended beyond that. Drawing on civic resistance to the extractive industry in North America, Leah Horowitz (2012), emphasizes that such struggles often imply more than a mere rejection of “locally unwanted land use” based on “selfish behavior” that rejects socially unacceptable industrial projects (2012, p. 24). This finding challenges the common yet contested perception among scholars that grassroots environmental resistance is most often about the “redistribution of economic benefits and costs” (Horowitz, 2012, p. 26) and the “NIMBY (not-in-my-backyard) syndrome” (Dear, 1992, p. 288) to describe “opposition arguments” to infrastructure projects (Ibid). While typically consisting of a knee-jerk reaction to potential risk, ‘NIMBYism’ can also sometimes evolve into, or be underpinned by, larger and more critical social and political concerns, including 1) Social and environmental harm reduction, 2) protection and regeneration of the livelihoods and environments of communities in resistance and 3) a desire for democratic, “meaningful public participation” (Horowitz, 2012, p. 31).

Horowitz (2012) argues that power is relational and not solely “monopolized by institutions nor depend[ing] solely on money” (p.30), writing that “power relations are dynamic and complex, allowing power to be exercised from marginal, interstitial spaces” (Ibid). Grassroots organizations, in Horowitz's view, are becoming increasingly powerful, as “networks of protesters are a growing source of grassroots power” (Ibid, p. 31). This raises the important question of who gets to decide if a project gets approved, what sorts of criteria are used to make the decision, and who benefits. Grassroots voices not only have a crucial role to play in contemporary environmental governance; they are in some instances able to muster a degree of social power to transform the material situation.

Lucie Sauvé (2016), environmental education scholar and activist against shale gas and extreme energies, notes the emergence of a “territorial identity” in Quebec and the renaissance of a land ethic in pipeline struggles (p. 17). In her analysis, instances of anti-shale gas or anti-tar sands reactions are initially animated by the rejection of risky projects near the homes of citizens. However, through shared struggle comes education and broader critiques of resource depletion and distribution that are not limited to their own ‘backyards,’ but to the entire planet. An activist from the citizen group *Regroupement vigilance hydrocarbures Québec* corroborates Sauvé’s hypothesis, saying that:

> I think any battle in life always starts with you [and] your own personal interest… Listen, I don’t believe that people fight in the environment for the grand cause. Not in the beginning, that comes later… From the day I started to militate against shale gas to protect my own [ground]water, well then I opened it up, then it was my neighbor’s water, too, then the entire

> municipality's water, and after that, it was the water of the region and the province… We realized that the water of the St-Lawrence Valley was to be protected as much as that of Gaspé… [and] Anticosti[85] (Interview, January 6th, 2015).[86]

Genevieve Puskas, from the Montreal-based ENGO *Équiterre*, worked extensively from 2013 to 2015 organizing information sessions in municipalities situated along two projected oil sands pipeline routes. Puskas described pipeline resistance as an entry point into broader and more anti-systemic political stances. In an interview, she explained what she learned through her role in mobilizing citizens against the two Quebec oil sands pipeline projects, Line 9 and Energy East:

> You can't talk about [pipelines] without rethinking the use for… our supply of oil and what that means… [T]hat's been a great educational vector. Getting people from a year ago [who] would be just: 'Oh, I don't want this in my backyard!' to actually start talking about climate change, and how we need to be moving away from fossil fuels (Interview, November 30th, 2014).

The scope of anti-fossil fuel struggles seems to broaden as citizens engage in various levels and modes of resistance, whether it be through public protests, participation in government consultations, organizing popular education workshops, calling upon journalists to cover the issue, or political pressure. And, as participants in the emerging movement against pipelines in Quebec amplify their resistance, they become aware of a more abstract texture of solidarity that binds them to their fellow-beings, human and nonhuman, beyond the narrow borders of their respective homes and workplaces. More than knee-jerk reactions and the simple narratives of 'dirty oil' or 'Big Oil' that are so often captured within the realm of Barney's "liberal democratic politics of publicity" (2013), anti-pipeline politics driven by an emerging vision of a fairer world that honors and respects life. Efforts like the Leap Manifesto (The Leap Manifesto, 2015) and the *Front common pour la transition énergétique* were initiated by gathering together dozens of

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[85] Gaspé and Anticosti are remote regions in the province of Quebec that have been the target of petroleum exploration projects. In 2014, anti-pipeline groups began to enlarge their struggles to encompass not only opposition to tar sands pipelines, but also to oil extraction in Quebec, projects that often used unconventional techniques like fracking (Regroupement Vigilance Hydrocarbures Quebec, 2014).

[86] "Je pense que n'importe quelle bataille dans la vie commence toujours par toi [et] ton intérêt personnel à toi... Écoute, moi je crois pas… que les gens se battent en environnement pour la grande, grande cause. Pas au départ, ça vient plus tard, ça... À partir du jour que j'ai commencé à militer contre les gaz de schiste pour protéger mon eau à moi, bien là j'ai (tendu) ça, là c'était l'eau de mon voisin aussi, pis l'eau de toute la municipalité, et après â c'était l'eau de la région, et la province… On s'est rendu compte que l'eau de la vallée du Saint-Laurent c'était à protéger autant que celle de Gaspé [et] Anticosti."

civil society leaders and concerned citizens to collectively weigh in on the precise contours of that vision. Being against pipelines is a common thread of the discourse, but it is the most obvious constituent of a larger set of grievances regarding governance.

In an interview with two activists with the *STOP Oléoduc* movement, I asked how they would name the common values of the people with whom they struggle against pipelines. Catherine's first response was immediate: "Solidarity, in any case... a social conscience" that motivates citizens to oppose pipelines. For her and her fellow anti-pipeline advocates, the stance was not about "economic values… it is really social values" (Ibid[87]). Her colleague "Marianne" chimed in, qualifying those values as:

> Humanist. It is the new humanism. This is really what I think. In a time when we speak only of business, economy and all that, we oppose with humanist values, in saying 'No!' It is the human above all, and the human hand in hand with everything else. The human integrated into its environment, that is maybe the difference with the humanism of other centuries" (Ibid[88]).

Catherine completed Marianne's idea regarding what she perceives as the ideological common denominator of the anti-pipeline movement: "Everybody shares a vision of society that is more egalitarian, more just, greener, more for the citizens, and less for big companies. [And] definitely with more green energies" (Interview,[89] December 12th, 2014). Protest and resistance against the Energy East pipeline are a means for concerned parties to share grievances about climate and environmental risk, while at the same time denouncing the political, economic and administrative processes and discourses that normalize the maintenance of oil-based production and fossil fuel intensive ways of life.

In short, this chapter shows that risks of oil sands pipelines and the indignation of citizens regarding contemporary energy and environmental governance galvanized a new generation of activists: citizens, of all ages, working with environmental groups. The movement was marked by discourses of citizenship that politicize infrastructure decisions and review processes—the latter which we were often dominated by economic arguments of energy security, economic prosperity, and capitalist accumulation. Through the reclamation of core democratic functions of

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[87] "Ce n'est pas des valeurs économiques… c'est vraiment des valeurs sociales."

[88] "Humaniste. C'est le nouvel humanisme. C'est vraiment ça je pense. À l'heure qu'on parle juste de business économie pis tout ça. Pis là on oppose avec les valeurs humanistes, en disant bien non. C'est l'humain avant tout, pis l'humain part avec tout le reste. L'humain intégré dans son environnement, c'est peut-être ça aussi la différence entre l'humanisme d'il y a plusieurs siècles."

[89] "Tout le monde partage cette vision de société plus égalitaire, plus juste, plus verte, plus pour les citoyens, et non pour les grandes entreprises, [et] définitivement vers davantage énergies vertes."

dialogue and deliberation that have been hollowed out under neoliberal capitalism (Crouch, 2011), citizens spoke out against the dominant mode of establishing value through extraction and consumption that produces levels of toxic and climate pollution that many communities deem socially unacceptable. By speaking out against the threats of polluting industrial projects and the perceived shortcomings of government action to regulate those projects in the context of the gargantuan social and environmental changes of the Anthropocene, opponents refused to accept their passive public status as mere spectators of neoliberal extractivist environmental governance. In so doing, pipeline opponents re-appropriated their role as active, vocal citizens within governance matters, contributing to a crucial debate about forms of socio-ecological institutions and infrastructure for the climate-constrained realities of the Anthropocene.

The catastrophes and anticipated disasters of pipeline leaks and other environmental or climate threats are undesirable. Yet, they may be socially cathartic, interrupting the weary social bonds of everyday fossil-fueled work, consumerism, and governance, and revealing the potential for a collective ethic of care for the planet and solidarity with people suffering disproportionately at the hands of petro-modern infrastructures and institutions. In so doing, social resistance against pipelines is one significant contemporary phenomenon among a few others that, taken together, may have the potential to catalyze a paradigm shift in human-environment interactions. Faced with the unintended consequences of 20th-century capitalist accumulation and industrial production, anti-pipeline struggles contribute to an imperative discussion about the need to establish infrastructures and institutions more attuned to the ecological realities of the 21st century. The ‘citizen’ voices of the dozens of hydrocarbon vigilance committees across Quebec are an important aspect of that discussion. Striving to build consensus for a post-carbon orientation in Quebec, I suggest that the anti-fossil fuel movement challenges the status quo of petro-centric development and governance by uniting everyday forms of social and political struggle to a broader arena of climate politics and debate. In that context, anti-fossil fuel voices attempt to re-frame what 'modernity' means to them, and how a culturally viable and socially just—not only technically feasible—sustainable future powered predominantly by renewable energy might be imagined and enacted. Given current cultural and governance impasses in the Anthropocene, perhaps anti-pipeline politics are a small but necessary contribution to human and planetary survival.

Chapter 6: Conclusion

This thesis explored how oil pipelines have become key sites of struggle in an ongoing attempt to redefine citizenship and governance in the Anthropocene, amid growing concern about the environmental and social impacts of fossil-fueled economies. Across North America, from Nebraska to British Columbia and the Dakotas, from Cree and Dene treaty territories in Alberta to Quebec's St-Lawrence Valley and Kanien'keha:ka (Mohawk) traditional lands, a wide range of groups and individuals began to challenge the 'right of way' of pipeline companies and the neoliberal governments that tended to support them. Ranging from non-governmental organizations (NGOs), grassroots' citizen activist groups, mayors, labor unions, indigenous peoples, and others, the voices of pipeline resistance put into question justifications for the market-driven energy development path that underpinned North America's expansion of unconventional oil and gas development. In Quebec, those claims clustered around the massive Energy East pipeline project.

The pipeline debate revealed that climate and energy issues are no longer confined to scientific and policy circles, having spilled over into the everyday lives of people. Disagreement with the logics of justification for pipelines drew people out of their everyday routines of work and private life, leading them to mobilize collectively with environmental organizations against pipeline projects. Citizenship—not in terms of membership of a nation-state, but rather as a living being nested within an intricate, evolutionary web of social and ecological relations—emerges as an explicit discourse to make sense of people's political participation regarding fossil fuel projects they perceived to be harmful. Hence, discourses and practices of citizenship were renewed in the context of the increasing clout of oil sands interests in decision-making. With environmentalists bemoaning the lack of democratic decision-making spaces for energy and climate policies free from the influences of petrolization, the pipeline served as a proxy for the debate on how to approach energy, economics, and the environment in the Anthropocene. As average global temperatures and sea levels rise, wreaking havoc on climate stability, environmental integrity, and traditional cultures, visions of the most appropriate development strategies and pathways clash. And as the risks of fossil-fueled climate change amplify, and the push to build new pipelines to bring oil to markets is unrelenting, there is no doubt the debate will continue to rage on for years.

6.1 Chapter Overview

Anxiety about the local and global risks from pipelines is key to understanding the surge in anti-pipeline attitudes. In chapter two, I examined Beck's theory of "world risk society" (2009, 2006, 1992a. 1992b), showing how climate change and the degradation of the planetary conditions essential for life (Rockstrom et al., 2009) are more than the mere consequences of modernity, but its primary products. In that context, anxiety about exposure to environmental risk forms the foundations of a kind of class system where people mobilize together in solidarity against shared environmental threats generated by industrial society, in addition to traditional class struggles of mobilizing for a greater share of society's benefits. Arguing that the anti-pipeline movement was one expression of these emergent class relations, I advanced the positive connotations of risk: infrastructures that reinforce fossil fuel dependency and social inequality become, paradoxically, driving forces for citizen engagement and social transformation.

I then proceeded to trace the origins of risk in the modern world beyond the mere use and production of toxic, climate-changing fossil fuels, to the systems and social relations that condition their use, i.e.: capitalism. In dialogue with theories on the metabolic rift (Foster et al., 2011; Foster, 1999) and the fictitious commodification of land and labor (Polanyi, 1944/2001), I attempted to show how capitalism imposes logics of production and consumption that introduce critical ruptures between humans and their environments. By enclosing the materials and living processes of planet Earth, and transforming them into commodities for which their values are then incorporated into modern supply chains, capitalism drives the unequal accumulation of profits and rents, without sufficient consideration for the carrying capacity of ecosystems, fairness of distribution, or the toxicity of wastes. Fossil fuels are central to the process because they are a product of capitalism, but more importantly, they are the dominant fuels that provide capitalism with its principal means of exploitation: energy, or the ability to do work.

Neither fossil energy exploitation nor commodity production in general are the only activities that are organized by capitalist imperatives. Increasingly, the principles underpinning capitalist markets have been exported to all aspects of governance, or what is called "neoliberalism" (Heynen et al., 2007). Neoliberalism's influence on environmental governance became increasingly evident when its core imperatives of economic growth and free markets eclipsed the growing scientific and public concern regarding fossil-fueled climate change. But political economic analyses were not sufficient to unpack the impasse between knowledge and policy action regarding climate and environmental issues. For that reason, I brought in the ideas of petroculture (Lemenager, 2012) and fossil knowledge (Gustafson, 2012) to broach the influence of cultural norms of petroleum-intensive consumerism in the maintenance of fossil fuel

exploitation. Together, I proposed that neoliberalism and petroculture texture the political and cultural norms behind justifications for oil pipelines, and that those discourses aim to depoliticize pipelines to maintain public consent for the maintenance and expansion of oil sands production.

Chapter three began by historicizing the capitalist-led oil production dynamics that I examined in chapter two. In the 2000s and early 2010s, the global capitalist economy shifted to a greater emphasis on fossil fuel and mineral resource extraction (Lee et al., 2012). Cypher (2010) and Pineault (2013) call the process “primarization,” or the increasing contribution of natural resource extraction (and its financial derivatives) to wealth creation. The conditions of primarization drove a new “oil transition,” particularly in North America, permitting the commercialization of previously unexploited “unconventional petroleum resources" like bitumen and shale oil (Farrell and Brandt, 2006, p. 1). To profit from the unconventional ‘oil transition’ and absorb the capital surpluses of a sluggish economy, Canada and other resource-rich countries elaborated extractivist policies that ensconced natural resource extraction as a primary national development strategy (Veltmeyer and Bowles, 2014; Gudynas, 2010). Yet, the transition to unconventional oil further exacerbated the carbon intensity of fuels, as well as upstream and downstream environmental and climate impacts of the “enhanced oil recovery technologies” involved in unconventional extraction (Alvarado and Manrique, 2010, p. 1529). which in turn provoked the emergence of anti-pipeline social movements. Those movements united a loose group of diverse individuals and groups (environmental organizations, city mayors, concerned citizens, some First Nations, and some trade unions) against the infrastructures that transport unconventional oil to markets.

While anti-pipeline social actors held varying positions and ideologies regarding private property, economic growth, and environmental protection, at their core, anti-fossil fuel and anti-pipeline arguments claimed the need to keep a maximum amount of fossil fuels in the ground to avoid catastrophic climate change and other environmental impacts of the fossil economy. Overarching political economic regimes appeared to resist such measures. Instead, extractivist policies and neoliberal projects attempted to govern and build “without thinking,” as one activist bemoaned (Interview, November 27, 2014). Pursuant to a logic of production that irrevocably transforms, and sometimes tears apart, cultures and living systems to obtain capitalist value, pipeline proponents do not think ecologically. In response, breaking from the dominant logics of “neoliberal extractivism” (Fast, 2014, p. 31) that frame oil sands extraction and pipelines as commonsensical, anti-pipeline voices reframed oil, and the systems of governance that continue to produce it, as irrational. In that sense, they attempted to publicly tarnish the legitimacy of oil

sands and pipelines, through acts ranging from environmental campaigning, policy advocacy, street protest, and civil disobedience.

Chapter four analyzed case studies of episodes surrounding the Energy East pipeline that formulated oil sands extraction for export as a natural, normal, and commonsense course of development in the public interest of Canada and Canadians. Anti-pipeline voices contested pro-oil government and corporate practices and policies. In so doing, I argued, following Hoberg (2016), that pipeline politics was an example of a "politics of structure," or a struggle over the institutional rules that determine which issues are prioritized and which parties have the right decide (p.1). As an activist from the STOP Oléoduc citizen group said, "capitalism… is put into question in a very global way…[T]he pipeline is just one element among many others that these mostly foreign companies do to make a profit to the detriment of the local population" (Interview, December 12th, 2014). Through the deregulation of environmental policy in the omnibus case, and the undermining of provincial regulatory frameworks in the beluga case, citizens witnessed not only risks to their communities and the planet, they also saw the enfeeblement of the welfare state's environmental and social safety nets. "Petrolization," or the influence of oil wealth on governance (Karl, 1999, p. 46), compromised the role of the State's institutions as guardians of the public interest, guarantors of social justice, and fair arbiters of conflicting interests. In response, citizens became disenchanted, indignant, and mistrustful as they perceived their government to be undermined by corporate oil interests, thus bolstering political claims about the long-term catastrophic impacts of petrocentric governance on life on Earth, and its short-term effects on democratic institutions.

Finally, in chapter five I investigated how the risky infrastructures of oil sands infrastructure contributed to reframing citizenship beyond its traditional association with market-based liberalism (Smith and Pangsaya, 2012, p. 24). By positing the citizen as first and foremost the member of a complex web of social and ecological relations, I suggested that the people who joined 'hydrocarbon vigilance committees' to fight against pipelines also sought to redefine institutional rules and reimagine energy and material infrastructures in an age of rampant environmental crisis. While many of the anti-pipeline stances began as defensive reactions against the threats of environmental degradation from the expansion of the oil sands industry, through shared struggle, people learned more about the issue. The shape of anti-pipeline action evolved from a knee-jerk response of "Not-in-my-backyard" to a deeper analysis that culminated in a categorical refusal of the values and logics that the government used to assess the risks and benefits of pipelines.

Against the dominant trend of framing oil sands pipelines as infrastructure in the national and public interests, 'hydrocarbon vigilant' citizens sought to politicize pipelines, making them into spaces of struggle against what Fast `(2014) calls "neoliberal extractivism" (p. 31) In so doing, citizens questioned the social desirability of investing in pipelines and oil sands extraction that the depoliticizing narratives of TransCanada and the Canadian government justified in terms of financial gains than social or ecological values. As Cleland and colleagues (2016) point out, above and beyond climate and other environmental risks, the point of contention underpinning anti-pipeline sentiments revolves around opposition to top-down governance. I concluded from my study that anti-pipeline politics is an instance of resistance to the underlying logic of the fossil economy, in particular for how the fossil economy can stimulate undemocratic, centralized decision-making. In that context, groups pushed their governments to factor in the environmental and long-term social and economic impacts of pipeline projects beyond the short-term calculations of returns on financial investment from the fossil economy. Therein, they also reimagined the role of the citizen in contemporary environmental and social issues.

6.2 Central findings

This thesis examined discourses of social resistance against the controversial pipeline project, Energy East. In the wake of the depoliticizing thrust of neoliberal politics and dominant petroculture that normalized oil sands as a "sensible choice" beneficial for all Canadians (see TransCanada, 2014b), the thesis revealed how anti-pipeline voices struggled to extend and democratize the pipeline conversation beyond strictly technoscientific, managerial, and capitalist terms. The impetus for anti-pipeline from environmental organizations began as an ideological response to climate risks, while for citizens, their formation of 'hydrocarbon vigilance committees' often originated as a refusal of locally unwanted petroleum infrastructure projects and the perceived risks in their own vicinity. However, as their engagement with the pipeline matter grew, their reasons for resistance became more intricate, and their discourses shifted, evolving beyond worries of direct risks right in their own backyards to broader governance questions and climate activism. Bringing the debate into wider-ranging realms of humanities, politics, culture, the arts, and everyday life, the anti-pipeline movement questioned government and corporate narratives that proposed technological approaches (like carbon capture and sequestration technologies) or market-driven solutions (such as carbon markets) to solving environmental problems.

As such, anti-pipeline politics in Quebec was marked by an attempt, at first by engaged citizens and environmental groups, and later by municipalities, trade unions, and First Nations groups, to rewrite the institutional rules of the carbon-constrained world of the Anthropocene,

where scientific, technological, and capitalist approaches cannot by themselves address the massive repercussions of fossil power. The social sciences play a crucial complementary role in this struggle. While a plethora of scientific research has been carried out on technical solutions to climate change—particularly regarding renewable energy technologies (e.g.: Jacobson, 2015; Panwar et al., 2011)— social science and humanities disciplines ask methodologically and theoretically 'messier' questions of power and culture, agency, and desire. These dynamics are essential to understanding how to operationalize post-carbon strategies of systemic change, beyond technical fixes and market approaches.

The need to include social science and humanities perspectives contrasts with the narrow terms in which the pipeline debate is often presented in media and political discourse, as a conflict between environment and economy (Parkins et al., 2015). While it is an oversimplification, I suggest that, based on findings in this research, social and political tensions of the pipeline conflict cannot be completely unhinged from the discursive dichotomy of economy versus environment. These tensions can be best characterized as a clash between two broad forms of governance. On the one hand, the dominant neoliberal form, that uses capitalist markets as models for social and political organization. And on the other hand, a less certain, inchoate form of governance animated by a wide set of objectives ranging from environmental sustainability, decarbonization of the economy, ending subsidies to the fossil fuel industry, improving indigenous sovereignty and decolonization, encouraging post-consumer cultures, and promoting greater measures for environmental protection. The common denominator of these stances, as seen in anti-pipeline activists' testimonies, was opposition to new oil pipeline construction, Energy East.

From these resistant stances, anti-pipeline groups pushed back against the neoliberal extractivist policies of the Conservative Canadian government to pressure for policy changes that might reconfigure and possibly overhaul the fossil economy. The politics of anti-pipeline stances, though heterogeneous, ranging from reformist, market-friendly green economy approaches or fears of local impacts to drinking water and the environment, to appeals for radical systemic transformation in response to environmental racism and climate justice, nevertheless all aimed, to some degree, to change the conditions that shape and determine what is deemed and experienced as 'valuable' in society (Graeber, 2001). With current economic arrangements that preserve centralizing, unequal, fossil fuel intensive power relations, modern modes of valuing society and nature are increasingly incompatible with the Earth system. In that context, oil sands pipelines emerged as powerful symbols of the unsustainable fossil economy. Seeking to block the pipeline became a way to fight back against

the destructive, yet often invisible, hand of capitalism in the hopes of inching or leaping toward an economy more congruent with the thermodynamics of biophysical and climate systems, and the fairness of evenly distributing risks and benefits.

With few rigorous and democratic forums of deliberation about pipeline projects, the media was most often the central public discussion platform. To stimulate public attention of citizens who are often disengaged and oblivious to environmental issues, anti-pipeline voices tended to frame their argument with recourse to simplified conclusions drawn from climate science research. An example of such science-backed anti-pipeline advocacy claims was a widely-cited paper from the scientific journal Nature in which authors McGlade and Ekins (2015) argue that 80-99% of oil sands “should remain unused” to keep global temperatures from rising above the two-degrees Celsius limit agreed upon by the United Nations (p. 187). But the question of keeping fossil fuel reserves in the ground is not merely a matter of science. Granted, the science of climate change, while complex, is also relatively straight-forward: petroleum combustion increases heat trapping gases in the atmosphere, thereby increasing average global temperatures and destabilizing the climate, which in turn cause extensive economic, environmental and health consequences. Hence, transitioning to a lower carbon economy to reduce those harms should be an easy decision.

However, unlike an overheating car engine, where an individual motorist will quickly fix a broken fan belt or replenish low coolant levels to avoid trouble down the road, fossil-fueled global warming is a collective problem that brings together science, politics, and culture. Institutions shaped by neoliberal extractivist policies and discourses empower a large host of corporate interests to continue producing oil. Furthermore, dominant petrocultures form a subconscious symbolic order that normalizes petroleum use and annuls alternative post-carbon social imaginaries that could be more livable, vibrant, and socially and economically just. Ergo, neoliberal extractivist interests and petrocultural norms tip the balance of power in favor of building more pipelines.

The interests and norms that drive continuing fossil extraction are also problematic for public conversations about alternative energy futures. For example, regarding the science of climate change and the potential environmental impacts of the Energy East pipeline, the project’s promoter TransCanada avoided public engagement, leaving 862 questions from the public unanswered during a provincial public consultation (Centre Quebecois du droit de l’environnement, 2016). Instead, the company used marketing, public relations, and political lobbying to advance their trade interests and to manufacture public consent for their pipeline projects, linking the pipeline, for example, with Canadian nationalism and a 'good life'. When

answering the question “Do we really need oil?” TransCanada argued that almost everything in modern life is powered by or made from crude oil (Energy East Pipelines, 2016), thereby framing their Energy East pipeline project as the “sensible choice” (TransCanada, 2014b). At the same time, with a federal government subjected to what in this thesis was referred to as the oil sands resource curse, or petrolization, and a neoliberal policy agenda, the pipeline debate remained centered on capitalist economic growth, oil sands jobs, and getting Canadian resources to market.

Issues not often addressed in media or public discussion involved how the objectives of pipeline resistance are, to varying degrees, compromised and complicated by a range of external and internal issues, including the realities of NGO-donor relationships; public misunderstanding (bordering on dislike) of environmentalists; the neoliberalization of institutions; trust issues within the movement between Big Green ENGOs and grassroots groups; the materialities of infrastructural carbon lock-in; and a myriad of other factors discussed in this thesis. Despite these obstacles, blocking pipelines and keeping as many existing fossil fuel reserves in the ground as possible were the central pillars of anti-fossil fuel discourses. Part and parcel with these oppositional tactics was a larger strategy of pressuring government to greatly expand the place of renewable energy technologies in the energy system. Therein, groups sought to provoke corrective measures to governance to address the dangers created by the metabolic rifts of capitalism and the impasse of petroculture in ways that market-based approaches have failed to do and politicians have been unwilling to do. While a goal like 100% renewable energy by 2050—an objective advocated by the Council of Canadians and inspired by Stanford researcher Marc Jacobson (2015)—and the correlating movement slogan ‘Keep fossil fuels in the ground’ may or may not be politically feasible, they stimulate public desire and imagination for post-carbon economies and pressure governments to rein in greenhouse gas emissions. Furthermore, promoting a radical stance that may be unthinkable for a majority of voters and consumers can serve to pull climate and energy policy closer toward that goal.

Refusing pipeline projects is thus only a first step in a longer process of which the ostensible goal is decarbonization policy and a shift away from the dominance of fossil-fueled consumer culture. But to shift policy and cultures in that direction, the political economic discourse that frames oil as normal and universally beneficial was put into question. Through the politicization of oil transport infrastructures like pipelines, the anti-pipeline movement exposed the ecological, and ultimately social, costs of petro-capitalist registers of value. Beyond just a struggle against dominant, fossil-fueled economic and political interests, anti-pipeline voices contributed to renewing practices of ecological citizenship for the contemporary age of eco-crisis and social

injustice, in a battle for political will and public opinion for the generation of new ecological norms and values.

6.3 Looking Forward

As social and political actors at all levels witness, with increasing concern, the harmful consequences of carbon-intensive development, there is no consensus on how to tackle the problem. Pricing carbon is one proposed step to readjust prevailing market signals to incorporate the externalities and costs of fossil fuel use and other environmentally or socially destructive economic activities. For example, Canadian Prime Minister Justin Trudeau's emerging climate plan involved obtaining buy-in from provinces to adopt either a carbon tax or cap-and-trade system to meet the modest 30% greenhouse gas emissions reduction target from 2005 levels by 2030 (The Economist, 2016). Market approaches like direct and indirect carbon pricing, and technological solutions like carbon sequestration, will no doubt constitute an important aspect of decarbonization. Yet, such 'solutions' to current impasses of climate policy inaction are proposed within the ecologically disembedded social relations of modern capitalism. As such, to what extent can ecological and sustainable behaviors and institutions emerge from such policy choices is uncertain.

Contrary to market-centered frameworks, new ways of thinking, being and doing—mutually informed by a deep understanding of the interrelations between humans and environment—are needed, and have yet to emerge, at a large scale (Bateson, 1972). The challenges posed by fossil-fueled climate change are a collective threat to all living systems, human and nonhuman alike. Therein, individual efforts like buying electric cars or turning down the thermostat are unlikely to sufficiently address the underlying metabolic issues of modern capitalist production. The politicization of projects, policies and infrastructures previously considered benign is a symptom of a shifting and more turbulent social and political landscape where social and ecological forces alike come to imperil the accepted, petro-centric state of affairs. As such, the fundamental social and ecological changes of the Anthropocene pose not only a massive technoscientific management problem, they also herald a new politics, science, and culture, as encapsulated in Beck's idea of metamorphosis (2015: 77). Pipelines are one locus around which people cluster to drive such a social metamorphosis, similar to what Bruno Latour calls "ecologisation" (2007: 265), as a means of stimulating the emergence of new institutions equipped to tackle the unevenly distributed benefits and risks of carbon-intensive lifestyles and modes of production. Consequently, the anti-pipeline argument draws attention to alternative forms of modernity and development. In a public lecture at Simon Fraser University, Darin Barney (2013) says,

> There is a potential for pipelines to mediate a more materialist and less discursive form of politics that exceeds democratic publicity, and puts into question the mobility of a staple commodity [bitumen]. These sites of contention [pipelines] may provide a unique site to disrupt and transform the material organization of our lives.

Blocking the Energy East pipeline might force the oil sands industry to reconsider plans to expand extraction and export. Without sufficient infrastructure transport capacity, industry players are unable to get their crude oil products to markets. The situation was complicated when elected political actors rallied to some aspects of the anti-pipeline argument; most notably with the opposition of Montreal area mayors to Energy East in its current form (Communauté métropolitaine de Montreal, 2016), and the signing of a "treaty alliance against tar sands expansion" by eighty-seven First Nations band councils. Consequently, oil sands companies faced infrastructural bottlenecks from stiff social resistance and unclear regulatory frameworks in Canada. Cracks in their business model were beginning to emerge; in 2016 Canadian pipeline companies began investing in infrastructure elsewhere, most notably in energy transport companies in the U.S. Two prominent examples of these foreign investments include Enbridge's purchase of $37 billion in stock in the American company Spectra Energy and TransCanada's acquisition of the U.S. company, Columbia Pipeline Group, for $13 billion (Johnson, 2016).

For that reason, it appeared that the anti-pipeline proposition was 'winning.' These anti-pipeline victories were gained, often through the demonization of oil sands production, placing blame on irresponsible corporate actors and complicit governments for promoting "dirty tar sands oil" (e.g.: Greenfield, 2015, para. 7). In the face of the carbon lock-in financed by powerful oil companies, anti-pipeline groups cast the solution to the impasse in terms of "people power" fighting back (e.g.: Fenton, 2015). However, before we begin uncorking the champagne bottles, there are a few aspects of the movement to consider. Truscello (2012) suggests that within the pipeline debate, "complex, distributed forms of agency make it difficult to create a binary division of sinners and saints, malevolent demand and benevolent supply, those who are solely responsible for the petro-cultural apparatus and those who stand entirely outside of it" (p. 193). Pointing out the riskiness of pipeline projects and the irresponsibility of corporate and governance actors may be a viable short-term strategy to push for policies that prevent socio-ecological harm. That said, it may not actually lead to the new, large-scale ways of thinking, being and doing called for by Gregory Bateson (1972) and many others. Continuously attacking the oil and gas industry will likely force it to escalate tactics, a sentiment echoed by Feffer's (2016) blog post for Foreign Policy in Focus entitled "Big Oil Isn't Going Down Without a Fight."

And when the industry finds allies in climate-denying, pro-oil political allies like the newly elected American president Donald Trump, this may lead to the militarization of production and increased criminalization of dissent. Such developments threaten to further degrade environments and dismantle existing environmental protection policies.

To address this complex issue of institutions and infrastructures in the age of extreme oil, climate change and petro-centric governance, Truscello (2012) urges us to "rethink ecological crises beyond the impasses of State-sanctioned resource exploitation and reactive environmentalism" (p. 200). Political scientist Bill Connolly (2012) offers some insight when he writes that political solutions like neoliberalism, social democracy, deep ecology, and socialist productivism may well be obsolete, and unable to tackle the socio-ecological problems of the 21st century (footnote 1). Instead, approaches more appropriate to the distributed nature of agency in a highly-globalized world, such as citizen role experimentation, social movements, and more reflexive forms of state action, have the potential to "recode the ethos that now occupies investment practices, consumption desires, family savings, state priorities, church assemblies, university curricula, and media reporting" (Connolly, 2012). If anti-pipeline movements are to culminate in something other than the common responses to contentious politics—such as impact and benefit agreements (Hitch and Fidler, 2007) or more robust pipeline insurance policies—they will need to rethink their practices and build relations of solidarity with other social movements. The tactics of contestation and protest hitherto employed by the anti-pipeline movement brought the fossil fuels issue to public attention, but they may not be the same approaches required to obtain the broader shifts in governance and culture necessary to live sustainably and ecologically in the Anthropocene.

Despite some of their limitations, anti-pipeline social movements usher forth an interesting space of contestation of the dominant discourse of fossil-powered economics, bringing an important debate to the mainstream about decarbonization, as well as how to live with the toxic fall-out from oil's extraction, production, and consumption. That said, the push to build pipelines is far from over. Though the climate and environmental risks from the fossil economy are undesirable, they may nonetheless be socially cathartic, interrupting the weary social bonds of everyday fossil-fueled work, consumerism, and governance, whilst revealing the potential for a collective ethic of care for the planet and solidarity with people suffering disproportionately at the hands of petro-modern infrastructures and institutions. Social resistance against pipelines is one contemporary phenomenon that may have the potential to catalyze a change in the governance of human-environment interactions. Even if the effect is messy or moderate, in the face of the ideological tenets of 20th century capitalist accumulation and industrial production, anti-fossil

fuel struggles contribute to pushing for the establishment of institutions more attuned to the ecological realities of the 21st century—and in so doing, these resistance struggles are perhaps a necessary element of human and planetary survival.

That said, resistance alone is insufficient in the task of reconfiguring institutions and social practices for the Anthropocene. As discussed throughout this thesis, resistance against pipelines is an effect of the power of fossil-fueled capitalism—as Foucault (1978/1990) wrote, “where there is power, there is resistance” (p. 95). However, the inverse is also true. Pipeline opponents are often already engaged in a myriad of activities and projects that attempt to re-embed economic relations into social and environmental concerns. Ergo, where there is resistance, there exists a form of nascent, bottom-up social power with the potential to transform carbon-intensive economic production and social reproduction. As such, people are not simply caught between two worlds—one for oil and one against oil—but rather are entangled in a multitude of power relations, ranging from the state and capitalist markets, to various emerging social relations that aim to re-shape how people interact with each other and the environment. Consequently, people are already consuming differently and prototyping new economic models and social configurations that are more in line with contemporary ecological realities. In the face of such collective effervescence, massive oil sands pipeline projects appear archaic and removed from the pressing ecological issues of the day.

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