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The Resistance Dilemma
Place-Based Movements and the Climate Crisis

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1 The Grand Challenge: Mobilizing to Address the Climate Crisis

Overview

It is increasingly understood that humanity faces a true climate crisis, where the pace and magnitude of climate change are on a civilization-threatening trajectory (IPCC 2018), yet the collective response by governments around the world to this emergency has thus far been too tepid to drive the pace and magnitude of energy-system change required to ensure a reasonably safe climate. Even if nations around the world carry out the commitments they made as part of the 2015 Paris Agreement, humanity will still be on a course toward a dangerous future climate.[1]

The explanations for this gap between the awareness of the crisis and the policy response are well understood by social scientists, and those explanations will be described shortly. This book focuses on a critical strategic choice by the North American wing of the global climate movement designed to address this gap. Frustrated with their inability to mobilize sufficient political pressure at the United Nations and at the national level, climate activists chose to ally themselves with place-based interests, including Indigenous groups, to block new coal plants, coal port expansion, fracking, and, more recently, oil sands pipelines (Klein 2014; Piggot 2018; Cheon and Urpelainen 2018). Organized resistance to new fossil fuel infrastructure has now become a formidable political force in North America as pipeline conflicts have become divisive national political issues in the United States and Canada, and in the relationship between the two countries.

This book examines the origins, influence, and challenges of this social movement strategy by focusing on the resistance to new oil sands pipelines. It addresses four core research questions: (1) Has the strategy of place-based resistance to fossil fuel development been effective at promoting climate action

and the reduction of global warming emissions? (2) Does the strategy risk the unintended consequence of feeding place-based resistance to the clean energy transformation? (3) Is there hope in more innovative processes of energy infrastructure decision-making that can promote social acceptance of the rapid transition to the clean energy system but avoid the confrontational politics that have characterized fossil fuel resistance? (4) If innovative approaches have been demonstrated to reduce conflict, why are they so rarely used?

Before discussing how these four questions will be addressed, this chapter will explain why mobilizing to address the climate crisis has proven so challenging for humanity. The chapter will then examine how the climate movement's efforts to surmount these mobilization challenges produced the strategic shift to blocking fossil fuel infrastructure before looking at the analytical framework guiding the analysis. It is an actor-centered framework focused on strategic actors working through and on a particular context of institutions and ideas. The book uses this framework to develop hypotheses about the expected relative power and behavior of actors resisting new energy infrastructure in particular cases. The chapter concludes by describing the plan to address each of the four guiding questions.

The Atmospheric Tragedy of the Commons

The climate crisis creates the urgent imperative to transform the energy system to one that does not emit global warming emissions. There's also a political component to the climate challenge: the remarkable political difficulties in motivating concerted action on addressing climate change as a result of problem structure, psychological barriers, economic and cultural opposition, and, in many jurisdictions, dysfunctional governance structures. First, it has all the characteristics of a "wicked problem" (Lazarus 2009; Levin et al. 2012). The structure of the climate problem is characterized by three prominent features:

- immense uncertainty about the timing and magnitude of impacts;
- spatial inconsistency between local emissions, and the economic benefits that flow from them, and global impacts of climate impacts; and
- temporal inconsistency resulting from lags in the response of the climate system, in that the costs of climate action are in the present but the benefits of reducing emissions are uncertain and in the distant future. (Victor 2011)

All three of these problem characteristics aggravate the challenges of political mobilization and collective action (Olson 1965). Because the benefits

of climate action are uncertain and far away in place and time, politicians have insufficient motivation to take the necessary short-term actions that inevitably come with some cost, frequently to politically powerful groups. As a result, there is a glaring mismatch between the incentives of policy-makers acting at the national or subnational level and the global community's shared goal of maintaining a safe climate. Paul Harris calls this dilemma "the atmospheric tragedy of the commons" (Harris 2013).

This problem structure also challenges our psychology as a species. Humans are "wired" to think about short-term, concrete issues, but climate change is long term and abstract. When faced with uncertainty, our psychology promotes optimism and wishful thinking rather than acknowledging the hard reality of the emerging crisis (Marshall 2014). Anthony Leiserowitz of Yale University has stated, "You almost couldn't design a problem that is a worse fit with our underlying psychology" (Gardiner 2012).

In addition to the organizational and psychological challenges of the problem structure, a further barrier to climate action is the fierce resistance of businesses and others who benefit from the status quo, especially the fossil fuel industry (Brulle 2014; Urquhart 2018). On top of the "privileged position of business" (Lindblom 1982) that gives business an enormous structural advantage over opponents, the fossil fuel industry has used its enormous wealth to fund campaigns and politicians opposed to climate action and to deliberately obfuscate climate science (Orsekes and Conway 2010). Economic resistance to climate action goes beyond big business, however, and includes many consumers (and voters) who are resistant to the price increases that would go along with a shift away from fossil fuels (Lachapelle and Kiss 2019). This resistance has spilled over into cultural politics. What began as strategic initiatives by fossil fuel companies to "manufacture doubt" about climate science has spawned a conservative social movement with a life of its own (McCright and Dunlap 2010). In January 2017, this social movement moved into the White House in the presidency of Donald Trump.

The Transformative Power of the Supply-Side, "Keep It in the Ground" Movement

In response to these formidable challenges, the climate movement has shifted strategies to focus on the supply side—blocking new fossil fuel infrastructure (Piggot 2018; Cheon and Urpelainen 2018; Green and Denniss

2018). In her book *This Changes Everything: Capitalism vs. the Climate*, Naomi Klein elevates local resistance movements to a hopeful progressive strategy to battle climate change. Klein characterizes this "keep it in the ground" movement (which she labels "Blockadia") as a "roving transnational conflict zone" that is provoked by "extreme extractivism," whose common characteristic is local resistance movements demanding local control. This movement, Klein notes, has quickly become remarkably effective: "It has taken the extractive industries, so accustomed to calling the shots, entirely by surprise: suddenly, no major new project, no matter how seemingly routine, is a done deal" (Klein 2014, 296).

Historically, these local conflicts were about local issues and disconnected from each other. Klein claims that, though reported in the mainstream press as isolated protests against specific projects, "these sites of resistance increasingly see themselves as part of a global movement" (303). An important catalyst in connecting these conflicts has been "widespread awareness of the climate crisis" (304). The emergence of the concept of a "carbon budget," discussed in chapter 2, has provided some scientific credibility for blocking new fossil fuel projects.

These themes have been echoed by Bill McKibben, the founder of 350 .org and perhaps the leader most influential in driving the shift to focusing on blocking pipeline infrastructure in North America (Klein and McKibben are close associates, and Klein is on the board of directors of 350.org). The *New Yorker* credited McKibben with transforming the politics of the Keystone XL pipeline (discussed in chapter 4) and with it the US environmental movement, saying that "McKibben has successfully made Keystone the most prominent environmental cause in America" (Lizza 2013). *Time* magazine referred to it as the "Selma or Stonewall" of the climate movement (Grunwald 2013).

In describing their strategy, McKibben emphasized the importance of allying the climate movement with place-based interests, saying, "After decades of scant organizing response to climate change, a powerful movement is quickly emerging around the country and around the world, building on the work of scattered front-line organizers who've been fighting the fossil fuel industry for decades" (McKibben 2013a). In the foreword to a book on the resistance to the oil sands, Klein and McKibben write, "The fight over the tar sands is among the epic environmental and social justice battles of our time, and one of the first that managed to marry quite explicitly concern

for frontline communities and immediate local hazards with fear for the future of the entire planet" (Klein and McKibben 2014, xvii).

The great benefit of "keep it in the ground" as a political strategy is that it avoids many of the barriers to collective action that thwart mobilization on climate change. While climate change is complex, uncertain, abstract, and distant, fossil fuel infrastructure is comparatively straightforward and poses very specific and readily understandable risks to geographically specific locations (Piggot 2018; Cheon and Urpelainen 2018; Green and Denniss 2018). That doesn't mean it is *the* solution to the climate crisis, but as chapter 8 of this book demonstrates in addressing the book's first core question, it has empowered the climate movement in a new way that has helped force real climate policy actions.

The Resistance Dilemma

Addressing the climate crisis involves a rapid phaseout of carbon-emitting fossil fuels and the accelerated adoption of clean energy technologies. According to the seminal report of the Intergovernmental Panel on Climate Change (IPCC) about the implications of aiming to contain global warming as close to 1.5°C as feasible,

> Pathways limiting global warming to 1.5°C with no or limited overshoot would require rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems (high confidence). These systems transitions are unprecedented in terms of scale, but not necessarily in terms of speed, and imply deep emissions reductions in all sectors, a wide portfolio of mitigation options and a significant upscaling of investments in those options (medium confidence). (IPCC 2018)

The second core question of this book is: does the "keep it in the ground" strategy risk the unintended consequence of feeding place-based resistance to the clean energy transformation? Many renewable energy generation and transmission facilities have confronted determined opposition from local groups, leading to costly project delays or alterations and in some cases outright cancellations. Solar and wind power projects, vital to replacing fossil fuels for electricity generation, have generated pushback from local groups concerned about property values, changes to species habitats, landscapes, aesthetics, and human health. New high-voltage electric transmission lines have also attracted significant resistance. Renewable energy projects

are frequently in quite different locations than fossil fuel infrastructure, so new transmission lines are usually required to supplement the buildout of new renewable energy sources. In addition, the integration of intermittent renewables into the electricity grid is projected to require significant new transmission capacity and deeper integration across larger geographic areas.

Concerns about renewable power infrastructure, as challenging as they have been, pale in comparison to the place-based resistance to nuclear power. Considered by many analysts to be critical to decarbonization (Morgan et al. 2018), there are virtually zero prospects for new nuclear energy plants in North America, in part as a result of vehement political opposition (Kinsella 2016). Place-based opposition has also thwarted the successful siting of nuclear waste repositories (Ramana 2018; McFarlane and Ewing 2006). While resistance to nuclear power is consistent with the arguments of this book, it has not been part of this research project and will not be addressed further.

Resistance to renewable energy is not a direct consequence of the movement to keep fossil fuels in the ground. In fact, as will be developed in chapter 10, the academic literature on the social acceptance of renewable energy emerged before the climate movement made the strategic pivot to blocking infrastructure. The resistance dilemma is that the "keep it in the ground" movement builds the institutional, social, and cultural muscles that strengthen the capacity of groups intent on resistance to renewable energy. Perhaps the most significant component of this dilemma is whether local governments should be granted veto power. If they are, it gives local authorities—Indigenous or not—the capacity to veto projects determined to be in the interests of the broader geographic political jurisdiction, but if that power is taken away, local groups may resent the disempowerment, and that can strengthen resistance.

Analytical Framework

To better understand the relationship between activist group strategies on the one hand and energy and climate policy outcomes on the other, this book applies an analytical framework from political analysis of public policies. Social scientists have developed a variety of theoretical perspectives designed to explain why governments adopt the policies they do. The advocacy coalition framework, developed by Paul Sabatier and his colleagues, focuses on the emergence of competing coalitions, one defending the status quo, the other change oriented. The groups are bound together because of

their shared beliefs (Jenkins-Smith et al. 2014; see also Hochstetler 2011). The multiple-streams framework, arising out of John Kingdon's influential work, focuses on the interaction of three distinct streams—of problems, politics, and solutions—converging to produce windows for policy change (Kingdon 1995; Zahariadis 2014). Baumgartner and Jones's punctuated equilibrium model, inspired by biological theories of evolution, focuses on how different actors in the policy process work to alter policy images and institutional venues to generate change (Baumgartner and Jones 1993). The institutional analysis and development approach, built on the work of Elinor Ostrom, examines actors working in a particular action situation operating through a set of institutional rules to produce policy outcomes (Ostrom 2014).

Despite their differences in concepts and emphasis, there is a great deal of overlap in these approaches. All take the unit of analysis to be the policy subsystem defined by a particular policy domain, such as energy, climate, health, or foreign policy. All focus on the interaction of three core conceptual categories of strategic actors with interests and beliefs, institutional rules, and a set of ideas influential in that policy domain.[2]

This book employs an analytical framework, referred to as the policy regime framework,[3] distilled from these multiple theoretical perspectives (Hoberg 2001; May and Joachim 2013). The regime approach sees strategic actors, in and out of government, as the central agents of policy.[4] Each actor has their own interests, as well as political resources. They adopt strategies designed to best pursue their interests given their resources (Hoberg 2001). Strategic actors interact within a context of ideas and institutional rules but also work to change ideas through reframing or change institutional rules through venue shifting or other means (Pralle 2006a; Baumgartner and Jones 2010).

This book examines not only the strategic choices of environmentalists but also the battle over ideas by analyzing issues covered by the media and examining the conflict over the institutional rules of the game. Institutional design can be pivotal because when the location of authority changes, the balance of policy preferences could also change significantly. As a result, changing the venue can lead to different policy outcomes with quite different consequences for competing actors. That explains why institutional rules and venues are so frequently deeply contested. In this political struggle over institutions, government actors—whether individuals in positions of authority or organizational units—are important agents. As we explore the various infrastructure conflicts throughout this book, it will be

important to keep in mind the distinction between government actors as actors within and on an institutional structure and the institutional structure of rules and venues themselves.

In earlier work, I developed a framework for analyzing the political risk to pipeline project proponents (Hoberg 2013). This framework is adapted here to analyze the strategic resources of project proponents and opponents, both for fossil fuel and renewable energy projects. This approach differs from the innovative work of sociologists McAdam and Boudet (2012), who built an explanatory model of opposition to energy facility siting inspired by the social movement literature. They use that framework to examine 20 cases in the United States, mostly liquefied natural gas (LNG) plants. Their model analyzes the relative importance of five factors: (1) the level of project risk, (2) whether the community has experience with similar projects, (3) whether the community experiences economic hardship, (4) the levels of civic capacity, and (5) political opportunity. Political opportunity is defined by whether the decision was made by elected officials, the proximity of the next election, and the level of government holding jurisdiction—with local government jurisdiction affording project opponents the greatest opportunities.[5]

The framework applied in this work argues that the relative power of project opponents is a function of four variables: (1) the salience of place-based, concentrated risks and benefits; (2) whether opposition groups have access to institutional veto points; (3) whether the project can take advantage of existing infrastructure; and (4) the geographic separation of risks and benefits. A detailed discussion of each of these variables follows.

1. *The salience of place-based, concentrated risks and benefits* The "logic of collective action" (Olson 1965) suggests that resistance to new projects is easier to organize if there are concrete, focused, place-based values at risk. By this logic, local concerns about risks to precious bodies of water are much more likely to galvanize opposition than more diffuse concerns such as global warming. The same can be said about local environmental impacts or the alteration of a sense of place resulting from deploying renewable energy infrastructure compared to the more diffuse concerns with decarbonization. The economic benefits of a project can be examined through the same lens. Jobs created in facility construction and operation are concrete and place based, whereas tax revenues and

corporate dividends are more diffuse. A variety of studies have found that close proximity to energy infrastructure tends to increase project support, because of both greater familiarity and greater expectation of economic benefit (Gravelle and Lachapelle 2015; Boudet et al. 2016; Boudet et al. 2018; Bishop 2014). As a result, a critical variable is the relationship between local risks and local benefits. Projects that provide local environmental benefits with minimal salient local risks are likely to face few opponents. When there are salient local risks and few local economic benefits, project opponents have a major advantage. The greater the local economic benefit, the more likely a project is to surmount resistance even if there are place-based risks. *The first outcome hypothesis is that the greater the placed-based risks in relation to local economic benefits, the more vulnerable the project is to resistance.*

2. *Whether opposition groups have access to institutional veto points* Veto points are locations of government authority that give a particular organization the ability to block approval of a project or policy (Immergut 1990; Tsebelis 2000). Examples are the organization granted formal decision-making authority (e.g., an independent regulatory body or the cabinet), whether the decision is subject to judicial review, and whether the approval of different levels of government is required.[6] In some cases, an organization can lack formal political authority but have sufficient power that they are equivalent to a veto point. These are referred to as "political veto points." *The second outcome hypothesis is that the more access opponents have to veto points, the more vulnerable the project is to resistance.*

3. *Whether the project can take advantage of existing infrastructure* Greenfield projects create more disruption to existing economic and residential patterns than projects that can take advantage of existing infrastructure.[7] *The third outcome hypothesis is that the more the project can take advantage of existing infrastructure, the less vulnerable it is to resistance.*

4. *The geographic separation of risks and benefits* All projects come with risks and benefits. If they occur in the same general area, it is more straightforward for affected interests and policymakers to consider both risks and benefits. The greater the geographic distance between those who benefit economically and those who face environmental risks, the more challenging it is to weigh risks and benefits. This situation is common in energy systems, where energy production is distant from its consumption—pipelines

and power lines being classic examples. This challenge is much greater when risks and benefits are separated by jurisdictional boundaries that represent veto points. *The fourth outcome hypothesis is that the greater the geographic separation of risks and benefits, the more vulnerable the project is to resistance.*

These outcome hypotheses are important to consider when predicting the level of opposition a new energy infrastructure proposal is likely to confront.

In addition to these hypotheses about outcomes, this analytical framework also yields several hypotheses about the anticipated strategic behavior of actors in this conflict.

1. To strengthen their leverage, climate activists will ally themselves with groups representing place-based interests when possible.
2. Strategic actors will focus their strategies on the institutional venue(s) most favorable to their interests.
3. Pipeline opponents will adopt framing that emphasizes place-based risks.
4. Decision rationales about pipelines will emphasize place-based risks far more than climate risks.

These hypotheses are important because they link the four-part analytical framework to predictions about the behavior of strategic actors within coalitions. They are explored through an analysis of actor strategies. In chapters 4–7, these hypotheses are applied to the four most contested oil sands pipeline cases of the 2010s: Keystone XL, Northern Gateway, the Trans Mountain Expansion Project, and Energy East. They are not a representative sample of pipeline cases. Rather, they were selected with the express purpose of examining the origins, implementation, and impact of the strategic choice by climate activists to shift from lobbying for policy reform to blocking fossil fuel infrastructure.

The core method is process tracing, a careful reconstruction of events within specific cases to identify causal process observations to draw inferences about explanatory hypotheses (George and Bennett 2005; Collier 2011; Mahoney 2010).[8] The four outcome hypotheses presented are the core causal hypotheses under investigation. They are further supported by the behavioral hypotheses, the first three of which point to mechanisms that help drive the case outcomes. The fourth behavioral hypothesis is what Mahoney (2010) calls an auxiliary outcome causal process observation, or an outcome that is consistent with the causal claims. Sources for this research

include government documents, organizational websites, media accounts, peer-reviewed research, and personal interviews with key actors.

Organization of the Book

The chapters in part I examine the policy regime for the oil sands. Chapter 2 focuses on the characteristics of the oil sands resource, the most important background conditions influencing the oil sands policy regime, and the strategic actors that make up the competing oil sands and anti-pipeline coalitions. The chapter gives a brief history of oil sands development and its local, regional, and global environmental consequences. It also provides an overview of trends in markets influencing the Alberta oil sector as well as trends in electoral politics and public opinion in Alberta and across Canada. It then closes by looking at which actors constitute the oil sands coalition and the anti-pipeline coalition.

Chapter 3 examines ideas, institutions, and environmental policies. It examines the way the two competing coalitions frame the issues to best influence the public and policymakers. It delves into one particularly important idea, the concept of a carbon budget, which has become a scientific justification of sorts for the "keep it in the ground" movement discussed earlier. It also examines the macropolitical institutions in Canada, using the United States as a comparator both because it helps illuminate the structure of Canadian institutions and because US institutions are vital to understanding the Keystone XL case described in chapter 4 and several of the contested renewable energy cases described in chapter 10.

The chapters in part II examine the anti-pipeline campaigns and their impacts. Four pipeline cases are analyzed in depth, in the order they became prominent national or bilateral issues. The locations of these pipeline projects are shown on the map in figure 1.1. Chapter 4 examines the controversy over Keystone XL from Edmonton to Oklahoma, where the climate movement first adopted resistance to oil sands pipelines as a core part of its strategy to influence climate and energy policies. Chapter 5 looks at the Northern Gateway pipeline from Alberta to British Columbia's north coast. Chapter 6 examines the Trans Mountain pipeline from Alberta to the port of Vancouver. Chapter 7 analyzes the Energy East pipeline from Alberta to the east coast of Canada. With those cases described and explained, chapter 8 addresses the book's first core question directly, asking how effective the

strategy of place-based resistance to fossil fuel infrastructure has been at promoting climate policy and reducing emissions. It summarizes the impacts of the four major anti-pipeline campaigns and shows how they directly influenced the adoption of more ambitious climate policies by both Alberta and Canada. It examines the changes that have occurred in the oil sands policy regime in the latter half of the 2010s.

The chapters in part III address the remaining three core questions. Chapters 9 and 10 address the "resistance dilemma" of whether place-based activism has the potential to threaten the much-needed transition to renewable energy. Chapter 9 examines resistance to one major clean energy megaproject, the Site C Dam in northeastern British Columbia. Chapter 10 examines
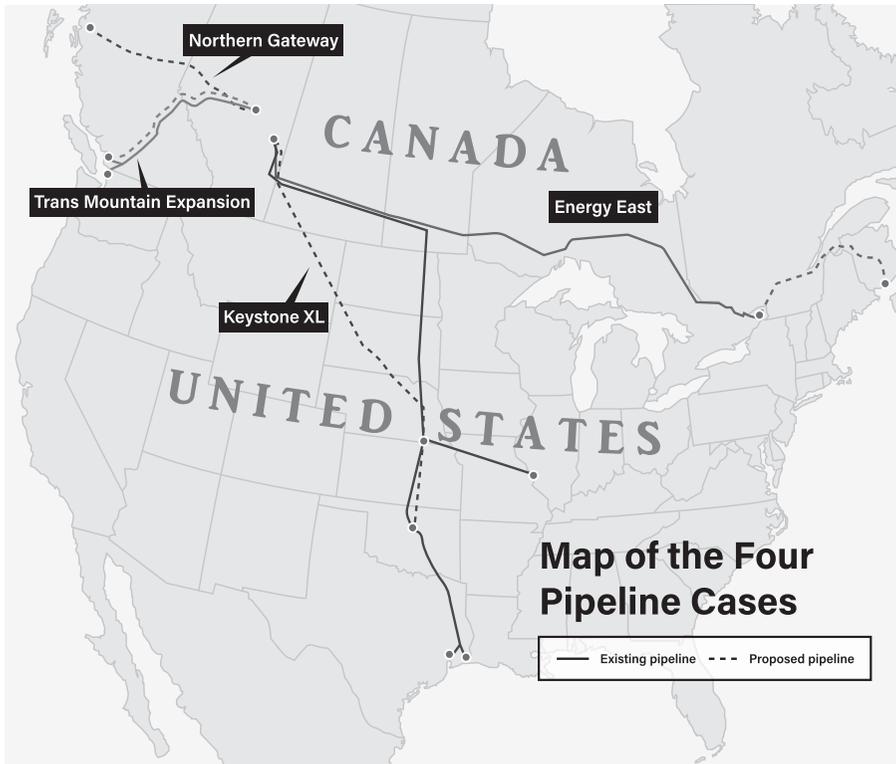
Figure 1.1
Map of the four pipeline cases.
Source: Joelle Lee.

a number of episodes of resistance to renewable energy infrastructure in eastern Canada and the United States.

It is helpful to think about these sorts of infrastructure conflicts as involving four stages that occur once the proponent proposes the project. First is the *project review stage*, where the project proposal is submitted for and undergoes regulatory review. Except in cases where an independent regulatory authority has final decision-making authority, the second stage is the *political stage*, where elected officials in government decide how to act on the results of the regulatory review. After that formal decision is made, in highly contested cases like the ones being examined here, there are two additional stages.

The third is the *legal stage*, where losers in the decision process challenge the legality of the decision in court and the courts hear and resolve those legal issues. Finally, the *on-the-ground stage* commences, where construction starts and physical resistance to the project emerges. Sometimes these stages overlap, especially the last two. Legal or physical conflicts can emerge during the project review and political stages, and physical conflict can emerge while legal proceedings are going on. Frequently, legal proceedings are battles over injunctions, either to prevent physical conflict from disrupting construction or to determine whether construction can proceed prior to the resolution of certain legal issues. Our case studies will trace the evolution of conflict through these stages.

Chapter 11 delves into the third question, whether we can build energy infrastructure decision-making processes that minimize the risk that unproductive place-based resistance will thwart projects that are in the broader public interest. Chapter 12 brings the book to a close by summarizing the results of the analysis and exploring the question of why more promising approaches to project review and approval have been used so rarely by decision-makers.