

# How the Battles over Oil Sands Pipelines have Transformed Climate Politics

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## Abstract

Organized resistance to new fossil fuel infrastructure has become a formidable political force in North America in the 2010s. Climate activists, struggling for influence within the political process, have allied themselves with place-based interests, including indigenous groups, to block new coal plants, coal port expansion, and more recently fracking and oil sands pipelines. This paper provides a synthetic overview of a multi-year research project examining the origins, influence, and challenges of this social movement strategy. It addresses four core research questions: (1) How effective has the strategy of place-based resistance to fossil fuel development been 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 regulatory review and facility siting 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? This paper will use process tracing, government documents, and personal interviews to address these questions.

## Overview<sup>1</sup>

The Fall of 2016 was a very busy time for the Trudeau government on the energy and climate file. On October 3, as environment ministers were meeting to hammer out final details of the Pan-Canadian Framework on Clean Growth and Climate Change, Prime Minister Trudeau rose in the House of Commons to announce the basic architecture of his climate plan. Saying “we will not walk away from science, and we will not deny the unavoidable,” Trudeau announced that the federal government would set a floor price for carbon pollution:

The price will be set at a level that will help Canada reach its targets for greenhouse gas emissions, while providing businesses with greater stability and improved predictability.

Provinces and territories will have a choice in how they implement this pricing. They can put a direct price on carbon pollution, or they can adopt a cap-and-trade system, with the expectation that it be stringent enough to meet or exceed the federal benchmark.

The government proposes that the price on carbon pollution should start at a minimum of \$10 per tonne in 2018, rising by \$10 each year to \$50 per tonne in 2022.

Provinces and territories that choose cap-and-trade systems will need to decrease emissions in line to both Canada’s target and to the reductions expected in jurisdictions that choose a price-based system.

If neither price nor cap and trade is in place by 2018, the Government of Canada will implement a price in that jurisdiction (Trudeau 2016a).

On November 29, 2016, Trudeau announced that he was rejecting the Northern Gateway Pipeline, but approving the Trans Mountain Expansion Project and another project, Line 3 to the American Midwest (Trudeau 2016b). Just over a week later, on December 9, the First Ministers formally endorsed the Pan-Canadian Framework on Clean Growth and Climate Change, although Saskatchewan and Manitoba dissented (Canadian Intergovernmental Relations Conference Secretariat 2016b; Dagg et al 2018).

These developments reflected the fruits of a well-organized and resourceful environmental campaign that had been more than a decade in the making. Organized resistance to new fossil fuel infrastructure has become a formidable political force in North America in the 2010s. Climate activists, struggling for influence within the political process, have allied themselves with place-based interests, including indigenous groups, to block new coal plants, coal port

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<sup>1</sup> An earlier version of this paper was presented at the Canadian Political Science Association annual meeting, June 2019.

expansion, fracking, and more recently oil sands pipelines (Klein 2015; Piggot 2017; Cheon and Urpelainen 2018).

This paper provides a synthetic overview of a multi-year research project examining the origins, influence, and challenges of this social movement strategy. 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 regulatory review and facility siting 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?

The remainder of this opening section provides an overview of the analytical framework. The paper will then tackle each question in turn. The answer to the first three questions is yes. Place-based resistance can be shown to have resulted in climate action. Strengthening the institutional muscles for place-based groups to block infrastructure does create risks that needed clean energy projects will be delayed or cancelled. And there is hope that more innovative processes can overcome place-based resistance. The answer to the fourth question is more complex. An examination of the incentive structure of government decision-makers and project proponents will help explain this dilemma and help inform the process reforms needed to facilitate the energy transition.

The analytical approach of the paper builds upon the insights of actor-centred analytical frameworks. Strategic actors are the central agents of policy. Actors each have their own interests, as well as political resources. They adopt strategies designed to best pursue their interests given their resources. Strategic actors interact within a context of ideas and institutional rules. However, they also work to change ideas through reframing, and change institutional rules through venue shifting or other means (Baumgartner and Jones 2010; Hoberg 2001; Pralle 2006). Institutional rules can be pivotal because when the location or form of authority changes, the balance of policy preferences guiding policy decisions could also change significantly. Many energy-environment policy conflicts have been about “the politics of structure,” or the struggle over defining the rules of the game (Moe and Wilson 1994).

In earlier work I developed a framework for political risk to pipeline project proponents, which can be adapted to analyze the strategic resources of project opponents (Hoberg 2013). The relative power of project opponents is a function of four variables:

1. 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 would be 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. 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.”

2. 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.
3. The salience of place-based, concentrated risks and benefits. The ‘logic of collective action’ (Olson 1965) suggests that mobilization 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 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.
4. The geographical separation of risks and benefits. All projects come with risks and benefits, and if they occur in the same general area, it is more straightforward for affected interests to consider both risk and benefits. The greater the geographic distance between those who benefit economically from those that 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. This challenge is much greater when risk and benefits are separated by jurisdictional boundaries that represent veto points.

This framework helps explain the strategies adopted by project opponents and the relative success of those efforts (Hoberg 2018a). It can also be applied to clean energy projects (Hoberg 2019).

### **Climate impacts of based-placed resistance to oil sands**

How effective has the strategy of place-based resistance to fossil fuel development been at promoting climate action and the reduction of global warming emissions? Prior to the anti-pipeline campaign, place-based resistance against fossil fuel infrastructure in North America was focused on coal. The anti-coal campaign was built on the same core strategy as the anti-pipeline movement: environmental groups committed to climate action allied themselves with place-based groups focused on local risks. In some cases, this was air pollution and related health impacts caused by coal-fired power plants. In others, it was the impacts on land and water of mountaintop removal mining (Cheon and Urpelainen 2018, Chapter 6).

Between 2005 and 2017, coal use for electricity generation in the US declined by 40%, leading to a reduction of 600 million tonnes of carbon dioxide emissions (Gruenspecht 2019). Place-based resistance is not the only reason why coal has been in such steep decline in the US. The most influential factor has been the shale gas revolution that undermined the relative competitiveness of coal as a power source. But according to Cheon and Urpelainen, “it is indisputable that the vibrant opposition to coal power plants makes investments in coal riskier and less profitable” (2018, 148). The most direct impact of the anti-coal campaign was the prevention of construction of new coal plants, contributing to the cancellation of 132 coal plant proposals by 2010 (Cheon and Urpelainen 2018, 132). The social mobilization against coal also contributed to the Obama administration’s mercury regulations and Clean Power Plans which further undermined the viability of coal.

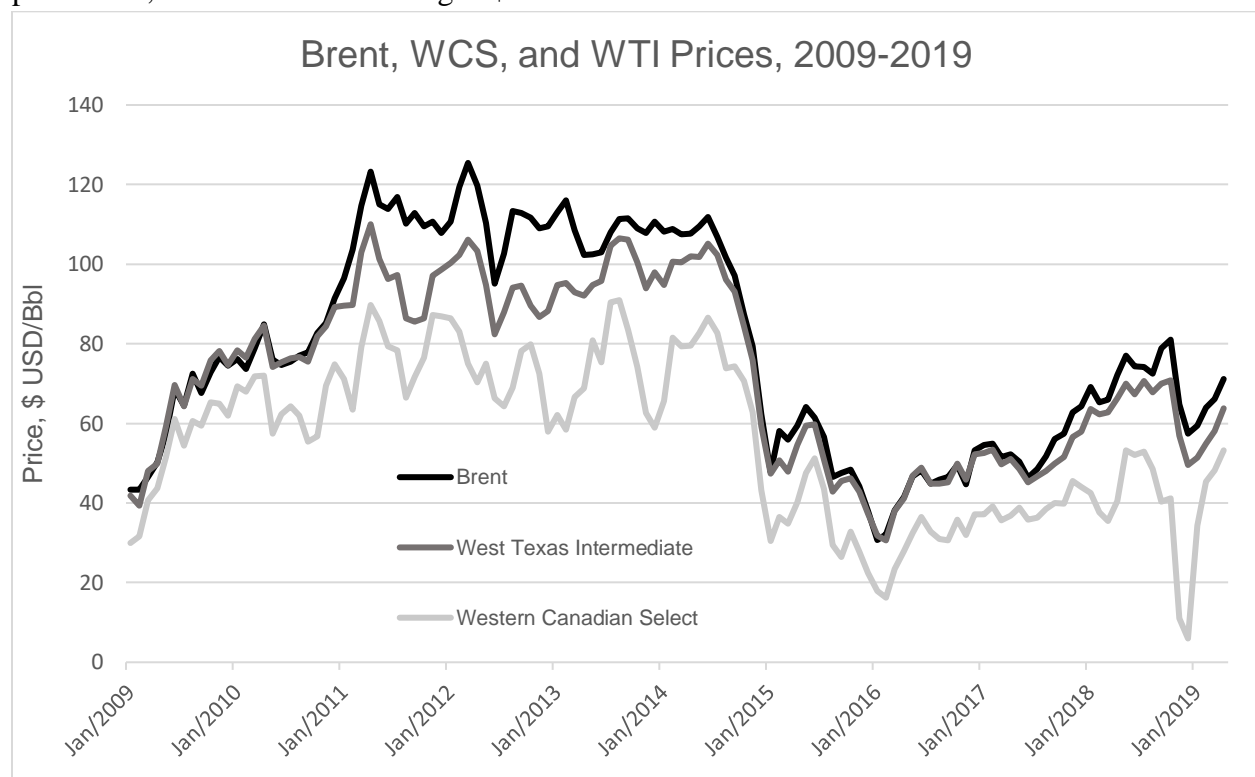
The choice by North American environmentalists to focus on oil sands pipelines was more contested. When Keystone XL was targeted, some climate policy analysts were highly skeptical of the strategy (e.g. Leach 2011; Revkin 2011; Levi 2013, Chapter 4). When Energy East and Trans Mountain became nationally divisive issues in Canadian politics, the University of Alberta’s Trevor Tombe was harshly critical of the cost-effectiveness of choosing to block pipelines rather than working through carbon pricing: “Climate change is a problem, but blocking pipelines is not the solution. Such efforts may distract from good policy at best, and jeopardize it at worst” (Tombe 2016).

But there’s a fundamental difference between the logic of the climate policy analyst and the climate policy advocate. The analyst focuses on the cost-effectiveness of different policy tools, but overlooks the prime justification that climate advocates saw in blocking infrastructure: By allying with place-based interests, they were able to mobilize a resistance movement that abstract support for economy-wide policies simply could not. As one campaigner in British Columbia explained: “Try going door to door campaigning on carbon pricing” (confidential personal interview). And while blocking individual projects was a vital part of the strategy, the higher-level objective was to motivate governments to adopt more ambitious climate policies. By that criteria, the anti-pipeline movement has unquestionably been successful.

The pathway of success was from the environmental campaigns in the media and on the ground, to climate policy reform in Alberta to climate policy reform by the federal government of Canada. The unbridled expansionism of the oil sands met with growing environmental resistance starting in 2005. Environmentalists launched a coordinated, multipronged campaign to undermine the economic and political rationale for oil sands growth. First, they adopted an ambitious framing campaign to shift the discourse about the oil sands, labelling them “dirty oil” (Nikiforek 2010). Second, building on their successful market campaigns in forestry, they targeted foreign buyers in the US and Europe. Third, and ultimately most importantly, they sought to contain expansion by blocking the approval of new pipelines to get product to market.

With respect to the proximate goal of stopping pipelines, the campaign has been very successful. None of the major four oil sands pipelines targeted by environmentalists is currently under construction, although at this time of writing Trans Mountain appears to be on the cusp of restarting construction. Keystone XL was cancelled by Obama. Trump sought to reverse that decision but that has been blocked in the courts. Energy East was cancelled by the proponent, frustrated by the relentless opposition especially in Quebec. Northern Gateway was rejected by the Federal Court of Appeal after deep and sustained resistance, and then terminated by the Trudeau government. Trans Mountain was approved by the Trudeau government in 2016, but then abandoned by the proponent, Kinder Morgan, due to political uncertainty created in large part of the place-based resistance against it. It was purchased by the Government of Canada, but then blocked by the Federal Court of Appeal (Hoberg 2018a). It's now been re-approved by the Trudeau government and is facing renewed challenges in the courts.

Greenhouse gas emissions from the oil sands have been affected by these cancellations and delays. Oil sands production has increased faster than pipeline takeaway capacity, and created a gap in prices between oil sands crude and North American and global oil prices. Figure 1 shows the fluctuations in the three indices. There has been considerable variation in the price differential; the greatest differential between the oil sands and continental price index was \$46 in October 2018. Between April 2010 and July 2014, the period when the issue first became highly politicized, that differential averaged \$19 a barrel.



**Sources:**

WCS and WTI: <http://economicdashboard.alberta.ca/OilPrice>

Brent: <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=RB RTE&f=D>

Pipeline constraints lead producers to rely on more expansive rail, and create higher price differentials – both of which mean lower profits and revenues for producers, and therefore less money to invest in new production. The National Energy Board estimated in 2016 that by 2025, oil sands production would be 450,000 tonnes per day lower than if production were unconstrained by pipelines (NEB 2016, Chapter 10). This amount of production foregone is equivalent to about 10 million tonnes of greenhouse gas emissions per year (Tombe 2016), compared to 67 million tonnes from the oil sands in 2014. Even without new pipelines, emissions would grow but they would be substantially lower a decade from now than they would have been without pipeline cancellations and delays.

In addition to slowing or stopping pipelines, constraining oil production, and, consequently, GHG emissions, the anti-pipeline movement also contributed to notable advancements for climate policy in Canada. 2015 was a watershed year in Canadian energy and climate policy, first with the stunning election of NDP in Alberta in May (Bratt 2019; Sharp and Braid 2016) and then the Trudeau Liberals' defeat of Harper's Conservative government in October (Pammett and Dornan 2016). Perhaps the most direct indicator of success of the place-based resistance campaign was the express motivations for Alberta's Climate Leadership Plan. For the previous decade, the Conservative Party in Alberta response to the environmental campaign was modest policy reforms and substantial investments in public relations and lobbying in foreign capitals (Hoberg and Phillips 2011; Urquhart 2018). The Alberta NDP adopted a strategic approach that differed from their Conservative predecessors, and embarked on developing a climate plan they believed would give them greater market and political credibility in international markets and the rest of Canada. According to Andrew Leach, the University of Alberta professor that Notley tapped to chair the Climate Leadership Panel, the motivation of his panel was not exclusively about pipeline approval but more about addressing the image problems of the oil sands:

This was more than just about pipelines. It was about having a policy in Alberta where you could credibly say “we have a policy that stands up well to everybody else’s so there shouldn’t be discriminatory policies over and above those that are aimed at or industries... It was really about that carving out an equitable treatment of Alberta and primarily the oil sands, but it’s industry and growing population as a whole... But it wasn’t “what’s the policy that gets us a pipeline?” Not by any stretch (Leach 2017).

But Leach believes that the direct link between pipelines and the climate plan “was certainly much more in the premier’s take”:



To me it is pretty obvious that by the time we got to the end of our process you weren't going to have federal government support for a pipeline if Rachel Notley stood up and said "it's not our time to act on climate change." You're going to make it really easy for other provincial governments to oppose pipelines, if that is your approach... So there where a lot of things that by taking on good policy you could probably change the probability of a pipeline approval and construction (Leach 2017).

Well before Notley's stunning election, a group of environmentalists began having facilitated discussions with a group of oil sands executives in an effort to broker a compromise on oil sands growth and pipelines. This process was separate from the Climate Leadership Team led by Leach. The link between pipeline opposition and climate policy was central to this process. In fact, oil sands companies agreed to a 100 million tonne cap on oils emissions in exchange for the environmental groups' apparent agreement to stand down their opposition to new pipelines (Urquhart 2018, 281). The companies weren't represented by the Canadian Association of Petroleum, but by four companies in the sector – Suncor, Cenovous, CNRL, and Shell – who believed that a more proactive approach to climate policy was necessary to improve the sector political legitimacy at home and in foreign markets (Lewis 2015). These companies and the group of environmental leaders came to an agreement and reported the results to the Notley government, which decided to add the emission cap proposal to the recommendations coming from the Climate Leadership Team (Leach 2017).

Alberta's Climate Leadership Plan was released on November 22, 2015, on the eve of the first First Ministers conference in a decade and just before the Paris Summit. In addition to capping oil sands emissions at 100 million tonnes, the plan committed to phasing out coal by 2030, increasing renewable electricity production to 30% of the total by 2030, implementing carbon pricing, and regulating methane (Government of Alberta 2015). When Premier Notley made the announcement, she made explicit reference to how the environmental campaign against the tar sands had damaged the province's international reputation and, as a result, market access. Fresh in her mind was President Obama's November 6 announcement rejecting the Keystone XL pipeline:

In our role as Canada's principle energy producer we need to step up to the climate change issues. Thoughtful people in the energy industry including the industry leaders standing with me here today, have been saying for a long time that we can and must do a better job. We got a major wakeup call on this a few weeks ago in the form of a kick in the teeth. Unfairly, in my view, the President of the United States claimed that our production is some of the dirtiest oil in the world. That is the reputation that mistaken government policies in the past have earner for us. We are a landlocked energy producer with a single market. A single market that just took a very hard run at us. So we need to do better. And we are going to do better (Notley 2015)

After describing the main components of the plan, including the 100 million tonne emission cap on the oils sands, she continued: “I’m hopeful that these policies, taken overall, will lead to a new collaborative conversation about Canada’s infrastructure on its merits. And to a significant de-escalation of conflict worldwide about the Alberta oil sands.”

Justin Trudeau won the Liberal leadership in April 2013. His first major speech on energy and climate issues was in October of that year, at the Calgary Petroleum Club. Castigating Harper for needlessly antagonizing domestic opponents and the Obama administration, he clearly articulated his belief that stronger climate policy was the means to gain approval of pipelines: “Let me be clear on this. If we had stronger environmental policy in this country: stronger oversight, tougher penalties, and yes, some sort of means to price carbon pollution, then I believe the Keystone XL pipeline would have been approved already” (Liberal Party of Canada 2013).

On March 3, 2016, in a speech to the delegates of the Globe conference of clean energy firms and advocates, Trudeau strengthened the pipeline-climate linkage by introducing the argument that new oil pipelines would help finance the clean energy transition:

The choice between pipelines and wind turbines is a false one. We need both to reach our goal, and as we continue to ensure there is a market for our natural resources, our deepening commitment to a cleaner future will be a valuable advantage” (Smith 2016).

That same day, Trudeau met with Premiers to discuss of the Pan-Canadian Framework on Clean Growth and Climate Change. The resulting Vancouver Declaration committed the federal government and provinces to “Implement GHG mitigation policies in support of meeting or exceeding Canada’s 2030 target of a 30% reduction below 2005 levels of emissions, including specific provincial and territorial targets and objectives.” The Trudeau approach to climate policy was clearly reflected:

Transition to a low carbon economy by adopting a broad range of domestic measures, including carbon pricing mechanisms, adapted to each province’s and territory’s specific circumstances, in particular the realities of Canada’s Indigenous peoples and Arctic and sub-Arctic regions. The transition also requires that Canada engage internationally.

The First Ministers agreed to establish a series of working groups and meet to finalize the plan in Fall 2016. The declaration was less explicit about the pipeline-climate linkage. The only reference to that argument is in the clause stating: “Recognizing the economic importance of Canada’s energy and resource sectors, and their sustainable development as Canada transitions to a low carbon economy” (Canadian Intergovernmental Relations Conference Secretariat 2016a).

This pipeline-climate policy linkage couldn’t have been made more clearly than Prime Minister Trudeau himself when he announced his government approval of the Trans Mountain Expansion Project in November 2016.

And let me say this definitively: We could not have approved this project without the leadership of Premier Notley, and Alberta's *Climate Leadership Plan* – a plan that commits to pricing carbon and capping oilsands emissions at 100 megatonnes per year (Trudeau 2016).

Two years later, he was still making that link explicit:

"In order to get the national climate change plan — to get Alberta to be part of it, and we need Alberta to be part of it — we agreed to twin an existing pipeline. Yes, they were linked to each other" (Harper 2018).

Place-based resistance was effective at delaying and in some cases leading to outright cancellations of pipeline projects. In concert with the media strategy that damaged the brand of Alberta oil, those actions inflicted economic pain on the oil sands industry. When the Alberta and Canadian governments were run by Conservative parties, they retrenched and defied environmental critics. In 2015 they were occupied by more progressive parties who believed a more strategic approach was to advance climate policy to increase legitimacy in politics and markets. The resistance strategy reduced oil sands production and emissions and eventually forced Canadian governments to adopt stronger climate policies than they would have absent the effects of that resistance strategy.

## The resistance dilemma

Addressing the climate crisis involves a rapid phase-out of carbon emitting fossil fuels and an accelerated adoption of clean energy technologies (Intergovernmental Panel on Climate Change 2018). By strengthening rules or norms about local control, does the strategy of environmentalists and Indigenous groups to focus on place-based resistance to new fossil fuel infrastructure create a paradoxical risk to the necessary clean energy transition?

Many renewable energy generation and transmission facilities have confronted stubborn opposition from local groups. Solar and wind power projects, vital to replacing fossil fuels for electricity generation, have generated controversy 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 transmissions lines are usually required to supplement the build-out 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 geographical areas.

Widespread resistance has spawned a substantial literature on the social acceptance of renewable energy (e.g. Wustenhagen et al 2007; Cleland et al. 2016; Batel et al 2013; Devine-Wright 2009;

Devine-Wright et al 2016; Fast 2013; Fast et al 2016; Sovacool and Ratan 2012; Hyland and Bertsch 2018). Hoberg (2019) reviews a series of cases of opposition to renewable energy infrastructure in North America and Europe. The cases reviewed clearly demonstrate that place-based resistance has the potential to frustrate the implementation of renewable energy infrastructure required for decarbonization. Not all renewable energy projects attract opposition, and in many cases even when they do, opposition can be surmounted. But the record contains a sufficient number of cases where place-based resistance has resulted in costly delays and/or project modifications, and most dramatically, outright project cancellations. Table 1 provides an overview of the cases review here.

<b>Table 1 – Summary of Renewable Energy Controversies</b>	
<b>Project (jurisdiction)</b>	<b>Outcome</b>
Ontario Wind	Substantial opposition produced many costly delays, cancellations. 2018 election: program scrapped
Cape Wind Offshore Project (MA)	Cancelled after protracted resistance campaign
Ivanpah Solar Electric Generating System (CA)	Operating – approved after modifications to address environmental concerns
Soda Mountain Solar Project (CA)	Cancelled after protracted resistance campaign
Tehachapi Renewable Transmission Project (CA)	Operating – approved after opposition forced expensive “undergrounding” of critical segment
Northern Pass (NH)	Cancelled after protracted resistance campaign

### **Ontario Wind**

In Canada, the most significant resistance to renewable energy infrastructure has been to wind power in Ontario. Place-based opposition led to number of delays, modifications, and even cancellations of projects, including a moratorium on off-shore wind projects in Lake Ontario. Beginning in 2004, the government of Ontario undertook a bold decarbonization initiative to phaseout coal-fired electricity generation, which in that year made up about one-fifth of the

province's electricity supply. To expand low-carbon supply, Ontario initiated a feed-in tariff program in 2006, and expanded with the adoption of the Green Energy Act in 2009. At the time, these changes were enormously popular with the public. A poll shortly before the Green Energy Act was enacted showed 87% of respondents approved of the proposed Act. Support was even high in areas where resistance to wind power had been reported as a result of projects proposed under the 2006 policy (CNW 2009).

As communities learned about proposed wind projects, however, "a fierce and well-organized backlash" emerged (Mulvihill et al 2013, p. 10). By 2011, local wind-resistance groups had emerged in every provincial electoral district with a wind turbine (Stokes 2015). Wind Concerns Ontario, created as a coalition of community groups, and had 50 local chapters (Stokes 2013). The groups were successful at mobilizing municipal politicians. By 2011, 78 municipalities passed resolutions against wind turbines (Stokes 2015).

Opposition resulted from a combination of concerns: visual and cultural concerns about the industrialization of rural landscapes, potential loss of property values, and "wind turbine syndrome," as resident near wind turbines reported concerns with sleep interruption, headaches, fatigue, dizziness, ear irritation, concentration problems, and irritability. While these three concerns have dominated Ontario wind resistance discourse, various scholar have also emphasized how the institutional arrangement around wind power contributed to the resistance, both directly by creating a backlash against those who feel excluded and indirectly in how alienation and annoyance contribute to perceived health impacts or a more general reduction in well-being. The two most consequential institutional features contributing to resistance are the stripping of planning authority from local governments and the dearth of community-owned projects (Fast et al 2016; Mulvihill et al 2013). The broader literature on the social acceptance of renewable energy stresses the importance of respecting local values, providing economic benefits to host communities, and involving local communities early meaningfully in the process (e.g. Wustenhagen et al 2007; Cleland et al. 2016; Batel et al 2013; Devine-Wright 2009; Devine-Wright et al 2016; Fast 2013).

The resistance movement was effective at mobilizing for the 2011 provincial election, in which wind turbines became a highly contested issue. Premier Dalton McGuinty's governing Liberal Party lost nearly all their rural seats, and lost their majority but remained in power with a minority government. Stokes (2015) estimated that the opposition to wind power cost the governing Liberals between 4 and 10% of the vote for residents living within 3 km of a proposed to operational wind turbine. In the 2014 provincial election, the Liberals, now led by Kathleen Wynne, succeeded in recovering its majority by winning an additional 10 seats.

Despite this resistance, Ontario has made enormous strides in decarbonizing its electricity sector since it began phasing out coal. In 2005, coal made up 21% of capacity and 19% of energy generation. It was completely phased out in 2014 (IISD 2015). Wind made up less than 0.1% of

capacity in 2005, and grew to 12% and of installed capacity and 8% of electrical energy generation by 2016 (NEB 2017, p. 20). As of December 2017, Ontario has 94 wind installations with a total of 2,515 turbines, with a total installed capacity of 4,900 MW (Canadian Wind Energy Association n.d.). Electricity-sector greenhouse gas emissions declined from 32 million tonnes in 2005 to 4 million tonnes in 2017, a remarkable 88% reduction (IESO 2017, Figure 19).

However, the Liberal era of promoting renewable energy and decarbonization came to an end in June 2018, when the Conservative Party of Doug Ford won a majority. Climate policy and renewable energy were part were among the salient issues in the campaign. Ford has been quite hostile to the green energy agenda. His election platform directly linked the Green Energy Act to higher electricity prices “The Green Energy Act alone represents Ontario's largest-ever wealth transfer from the poor and middle class to the rich” (Ontario Progressive Conservatives 2018). Energy costs were a significant issue in the campaign, ranking fourth among issues in a pre-election poll, with 28% of respondents saying energy costs were among the top three election issues (IPSOS 2018a). Ford’s first act after becoming Premier was to dismantle the province’s cap and trade program. Several days later, he cancelled 759 renewable energy contracts that were in the works.

### **Massachusetts Offshore Wind**

In the Cape Wind case off the Massachusetts coast, place-based resistance contributed directly to project cancellation. The Cape Wind Project, an off-shore wind farm of 130 wind turbines in the Nantucket Sound, off Cape Cod, Massachusetts, was the first major off-shore wind facility proposed in the United States. The project would have a capacity of 470 MW and was expected to generate 1,500 GWh per year (BOEM, n.d.). The project was proposed in November 2001 In November 2001, but after a number of delays in the environmental assessment process, it was not approved until April 2010.

The Cape Wind Project was supported by the Sierra Club, Greenpeace, and the Natural Resources Defense Council, but still faced relentless place-based opposition and protracted court challenges for over ten years. While concerns over impacts on tourism, navigation, marine life, and migratory birds were expressed, opposition was also fueled by concerns over sense of place, including by many wealthy, prominent Americans. Walter Cronkite, the late legendary broadcaster, denounced the project by proclaiming “Our national treasures should be off limits to industrialization” (Burkett, 2003). An odd political coalition of Kennedy’s, billionaire William Koch, former Secretary of State John Kerry and former Governor Mitt Romney, joined forces to oppose the project (Seelye, 2017; Eckhouse and Ryan, 2017). In his New York Times op-ed in 2005, Robert F. Kennedy, Jr stated: “I do believe that some places should be off limits to any sort of industrial development. I wouldn’t build a wind farm in Yosemite National Park. Nor would I build one on Nantucket Sound” (Kennedy Jr, 2005).

These wealthy landowners helped fund the Cape Wind Alliance to promote its anti-Cape Wind Project advocacy in regulatory agencies and courts (Seelye, 2017). The last straw for the project was a July 2016 decision by the U.S Court of Appeals for the District of Columbia to reject the governmental approvals for the project (Cassell, 2016). The project was terminated in December 2017 (Seelye, 2017; BOEM, n.d.).

### **California Concentrated Solar Power**

2500 miles away, stiff resistance emerged to two concentrated solar power projects in the Mojave Desert region on California: the Ivanpah Solar Electric Generating System and Soda Mountain Solar Project. California was an early adopter of renewable portfolio standards, and in 2008, its RPS was strengthened to require 33 percent renewable electricity by 2020 (Hunold and Leitner, 2011; Cain and Nelson, 2013). This policy has led to the development of large-scale renewable energy projects, including solar projects made possible by opening up public lands in remote areas of the Mojave Desert. This “Solar Renaissance” (Hunold and Leitner, 2011) also attracted opposition out of concerns for sensitive wildlife.

The Ivanpah Solar Electric Generating System is a 377-megawatt concentrated solar power facility built on 3,400 acres of public land near the California-Nevada border (Moore and Hackett, 2016). The project was a top priority of the Obama administration’s push to reduce America’s carbon footprint and move towards a green energy economy. The project was proposed in 2007, and attracted environmental concern because of its impact on migratory birds and especially desert tortoises. These tortoises have lived in the Ivanpah Valley region for millions of years and are listed as a threatened species under the Endangered Species Act (Kerlin, 2018; Moore and Hackett, 2016).

Despite the resistance campaigns, the construction of Ivanpah Solar Electric Generating System was eventually completed and began operating in 2013. While the strong resistance of opponents was not able to stop the project, it did result in several significant changes. First, the developers had to scale back from the original 400-megawatt design to the current 377-megawatt version to reduce the disturbance to desert tortoise habitat. Second, the Bureau of Land Management ordered a temporary suspension of construction in April 2011 to gauge the impacts on the desert tortoises (California Desert District, 2011). In June 2011, the Bureau lifted the suspension order as the U.S Fish and Wildlife Service “found the project [was] not likely to jeopardize the endangered desert tortoise” (BLM, 2011). Third, Bright Source Energy has spent more than \$56 million on mitigation efforts for desert tortoises, including the care program for juvenile tortoises, providing the nurseries, and relocation (Wiener-Bronner, 2014). Without the relentless pressure from the environmentalists, desert conservationists and biologists, such mitigation efforts might not be implemented.

While the Ivanpah project was able to overcome resistance with project modifications, the Soda Mountain Solar Project was unable to do so. In this case, the environmental concerns over

sensitive habitat involved bighorn sheep, foxes, owl and migratory birds. This underdeveloped Soda Mountain region was an important habitat for the bighorn sheep, but they were separated between North Soda Mountain and South Soda Mountain by Interstate 15 (Sahagun, 2016a; Steinberg, 2016; The Press-Enterprise, 2016). As the bighorn sheep population had experienced a strong growth rate in recent years, biologists proposed to restore migration corridors to avoid the species becoming genetically isolated (Sahagun, 2016a). The proposed power facility would undermine the effort of re-establishing the key migration routes and thus have inadvertent impacts on the growth of the bighorn sheep.

The strong opposition campaigns led to the cancelation of the power-purchase plan by the major customer, City of Los Angeles in June 2015. The Sierra Club was strongly in favour of the city's decision: "The Sierra Club is delighted to see the city do the right thing and choose not to sign a power purchase agreement with this harmful project" (Sahagun, 2015). In addition, project opponents had successfully lobbied the San Bernardino County Board of Supervisors to rule against the project by not granting the final permit that the developer needed to proceed with the construction.

### **California Transmission Line**

The two cases of high voltage transmission lines reviewed by Hoberg (2019) show a similar pattern to the concentrated solar controversies: in one case, expensive project modifications were able to overcome community resistance, but in another they the project was abandoned outright. The Tehachapi Renewable Transmission Project (TRTP) is a 173-mile transmission project, developed by Southern California Edison (SCE), to bring up to 4,500 megawatts of renewable energy from wind farms in Kern County to substations in Los Angeles and San Benadino counties (Southern California Edison, n.d.). The project was designed to contribute to California's Renewable Portfolio Standard's requirement to obtain 33% of its energy from renewable sources by 2020. The project was strongly opposed by residents of an area in the city of Chino Hills due to concerns about visual disruption, decreased property values, and health and safety (Cain and Nelson, 2013).

The city formally requested that a 3.5 mile segment be "undergrounded." The California Public Utility Commission eventually agree with the petitioners and ordered the utility to underground that segment. Cost estimates of undergrounding that segment ranged from \$300 million to \$800 million compared to the cost estimate of \$170 million to build the overhead transmission line (Dombek, 2012; Southern California Edison, n.d.b). In the summer of 2014, construction of the underground line in Chino Hills was begun. The Tehachapi Renewable Transmission Project has been in operation since December 2016, though it was originally scheduled to be operational in 2015 (Tweed, 2010).



## New Hampshire Transmission Line

The Northern Pass Transmission Project, which would have helped New England reduce carbon emissions by importing Quebec hydropower, has been cancelled as a result of vehement place-based resistance. The Northern Pass project is a proposed \$1.6 billion system of high-voltage transmission line to bring 1,090 megawatts of Canadian hydropower produced by Hydro-Quebec to New Hampshire and the rest of New England (Northern Pass Transmission, LLC, n.d.; Pentland, 2018). The Northern Pass was expected to help New England reduce carbon emissions by up to 3.2 million tons a year (Northern Pass Transmission, LLC, n.d.). In November 2017, Hydro-Quebec and Eversource, the project proponent, received a presidential permit for the project from the US Department of Energy (Department of Energy, 2017). In January 2018, they continued to receive the approval from Massachusetts for the Northern Pass by winning the biggest 20-year energy deal in the history of Quebec's public utility (CBC, 2018a).

Resistance to the project emerged due to concerns about visual impacts, decreased property values, environmental impacts, and economic impacts. The project proposed to run through the Great North Woods Region of New Hampshire, an important area for the state's tourism sector (Difley, 2011; Burbank, 2012). However, the project was rejected in February 2018 by New Hampshire's Site Evaluation Committee (CBC, 2018b; Pentland, 2018). Eversource has challenged the decision in the New Hampshire Supreme Court. Nevertheless, the construction of the Northern Pass through New Hampshire is unlikely to happen because Massachusetts decided in March 2018 to move forward with alternative plans to import electricity (Chesto, 2018; CBC, 2018c).

These cases reveal the importance of the four factors laid out in the introduction. Opposition group access to institutional veto points is a very important element of the power of project opponents, but in complex ways. The multiple veto points of the American federal system were especially apparent in the Cape Wind and Northern Pass cases, where opposition groups seemed to try every venue possible to block the project, including courts and federal and state regulatory processes. In the Soda Mountain solar case in California, it was the San Bernardino County Board of Supervisors that rejected the project. In the Ontario wind case, in the early years of resistance community groups also sought to use the zoning authority of local governments to block projects, but the provincial government stripped them of that authority. While that removed the capacity of local governments to thwart projects, it also decreased the sense of community empowerment, which has aggravated the degree of resistance. We'll return to this dilemma shortly.

The more a project can take advantage of existing infrastructure, the less resistance it's likely to encounter. Powerlines, for example, have a smaller marginal impact on a landscape if they can be sited in, or adjacent to, existing rights of way. But projects that have that advantage are by no means guaranteed to be successful. A very high fraction of the Northern Pass Transmission

Project would have taken advantage of existing infrastructure, but some portions could not. And those segments generated enough resistance to thwart the project.

The salience of place-based, concentrated risks and benefits is apparent in all of these cases, from treasured rural landscapes in Ontario, to desert tortoises, bighorn sheep, and migrating birds in the Mojave Desert, to cherished forest mountains in New Hampshire, and precious views of unspoiled Nantucket Sound, impacts to special values play a critical role in all of these cases. Projects that have been able to surmount place-based resistance have found ways to tailor the project to reduce the risk to treasured values sufficiently, as shown by the Ivanpah Solar project and Tehachapi Renewable Transmission Project.

The final factor is the geographical separation of risk and benefits. All of these cases reveal the importance of this variable as well. While renewable energy creates greater potential to concentrate risks and benefits in the same location, they frequently don't. Rural community resistance to wind power in Ontario was so strong because the benefits of the development were typically far away. Transmission lines, pipelines for electrons, are inherently project that impose impacts on communities they pass through for the benefit of those at one of both ends of the line.

This section has demonstrated that like new fossil fuel infrastructure, renewable energy infrastructure has attracted significant place-based resistance that has led to costly project delays or alterations, and in some cases outright cancellation. Renewable energy resistance is not a direct consequence of the movement to keep fossil fuels in the ground. In fact, 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 in the ground movement builds the institutional, social, and cultural muscles that strengthen the capacity of groups intent on resistance to renewable energy.

### **The promise of deeper engagement**

Is there hope in more innovative processes of regulatory review and facility siting 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? Reconciling place-based interests with broader political collectivities is a fundamental challenge of democratic systems.

Hoberg (2018b) examined the theory and arguments behind proposals to move beyond site-specific decision-making to more promising strategic approaches, and reviews the lessons learned from processes that have been used in the specific domain of energy planning and facility siting and related areas. Research on and practice with designing assessment and review processes contain significant insights into what kinds of processes foster legitimacy and social acceptance.

The following nine evaluative criteria emerge from the literature. The first six criteria address the review process. The remaining three address attributes of the outcome of the decision process:

1. *Representative*: “getting the right participation” (Stern and Feinberg 1996): ensuring the appropriate affected interests are involved, and that the selection process is fair and legitimate (Abelson et al 2003).
2. *Deliberative*: “getting the participation right”: legitimate and responsive procedures, including participant engagement in design of procedures, respectful and inclusive dialogue, and effective facilitation (Peterson St-Laurent forthcoming).
3. *Transparent, impartial, and accountable*: ensure that the process is well understood and respected by direct participants and others with an interest in the decision, and that the ultimate decision is demonstrably influenced by the process.
4. *Well-informed*: “getting the right knowledge, and getting the knowledge right” (Stern and Feinberg 1996): the information presented and developed through the process is accessible, readable, digestible, and reflects a diversity of expertise and knowledge sources (Abelson et al 2003).
5. *Integrated*: across levels of plans and policies, to ensure consistency between project-level outcomes and broader social and political goals.
6. *Efficient*: ensure the process is affordable, feasible, and timely.
7. *Legitimate*: the outcome is socially acceptable to political relevant constituencies.
8. *Equitable*: ensure benefits and risks of the project are seen as fairly distributed, particularly to host communities.
9. *Sustainable*: protecting environmental values, and in this context, ensuring that project decisions contribute to decarbonization.

There are of course tensions among some of these criteria. Getting the desirable level of informed interaction between experts and process participants can be a time-consuming process, and advocates of deliberative processes rarely favour the types of strict process deadlines that industry proponents frequently feel are essential.

The public engagement literature also highlights a more surprising tension between representative, on the one hand, and deliberative and well-informed, on the other. This tension is particularly acute when processes are designed to be broadly inclusive, and open to mass participation, which has become more commonplace over the past several decades - the recent Keystone XL hearing process, for example (Gregory 2017; Rossi 1997). This trade-off emerges because of a lack of agency or government capacity or motivation to facilitate large-scale, mass-deliberation, as well as a concurrent desire to enhance legitimacy in democratic societies through inclusivity. The result is that governments request public input without creating the forum or capacity for responsiveness, dialogue, and learning that is often required and desired by citizens in decision-making. Gregory recommends shifting the emphasis away from inclusivity as a guiding criteria, and more carefully identifying a smaller group of the most appropriate

representative participants. This could free up scarce time and resources, which could be dedicated to more engaged, deliberative processes. This type of process could be more successful in clarifying stakeholder priorities and incorporating quality information, and, as a result wield greater influence over decision-making (2017, 161).

There will probably always be a place for project-based assessments and reviews, but experience has demonstrated that if they proceed in the absence of coherent higher-level policies and plans, they are much more likely to attract strong opposition. The reviews of Canadian oil sands pipelines are a case in point. Some of the opposition to the pipelines was focused specifically on environmental concerns about pipeline or tanker spills. But the reviews also became venues where opponents sought to express grievances about climate policies or the role of Indigenous groups in decision-making; issues that the review panels had no jurisdiction to address (Ministerial Panel 2016).

These types of conflicts are not unusual because of the inherent limits in how effectively project-based reviews can address the cumulative effects of multiple projects that affect the same values. Cumulative effects can be described as “‘progressive nibbling’—the accumulation of effects that occurs through many, often small-scale activities”(Noble et al. 2014: 317). For example, greenhouse gas emissions come from a variety of sources in any jurisdiction. Assessing the significance of one proposed facility is not meaningful in the absence of both a jurisdictional target for emissions as well as an understanding of existing and potential future sources of emissions. Similarly, several wind turbines may not fundamentally alter an agricultural region’s sense of place, but a large number of turbines easily could.

These shortcomings of project-based reviews can be addressed by adopting more strategic processes. Two notable related models are strategic environmental assessments (SEA) and collaborative land use planning. Notable attempts at using SEAs have observed worldwide. But many SEAs have failed to live to the expectations over the years (Seitz et al. 2011, Noble et al. 2014, Acharibasam and Noble 2014). For example, in Ontario, SEAs were used for several prominent assessments in the 1980s and then were abandoned in favour of project-level EIAs (Mulvihill 2003). Experience elsewhere has revealed the main barriers tend to be about disagreements of what SEA should look like, insufficient data availability particularly with baseline data, especially the lack of capacity and available resources dedicated to doing them effectively (Acharibasam and Noble 2014; Cronmiller and Noble 2018; Noble et al 2014; Partidário 2015).

Strategic environmental assessment can be applied to policies, or a technology cluster like nuclear power, but it can also be applied to a defined geographical region to establish land use plans. One successful strategic land use planning initiative occurred in British Columbia (BC). Beginning the 1990s, the province developed an innovative collaborative planning model in an effort to overcome deeply divisive “valley-by-valley conflicts” that emerged over precious

forested areas threatened by logging (Cashore et al 2001; Pralle 2006; Shaw 2004). One scholar calls it “the most comprehensive application of collaborative planning to date” (Gunton 2017).

By 2008, land use plans had been completed for 86% of the province. When the process was launched in 1992 the government committed to doubling protected areas in the province from 6% to 12%. But the province exceeded that objective. The new protected areas in the Great Bear Rainforest, along with other areas of the province, increased the amount of protected areas in the province to 14% of the land area, a significant accomplishment. It also contributed to a dramatic decline in conflict and protests over forestry operations (Cullen et al 2011; Hoberg 2017).

Despite the great success, the collaborative strategic land use process was terminated in 2006 because the new, more business-oriented BC Liberal government associated it too much with the ideology and culture of the social democratic party that created it (Hoberg 2017).

The reluctance to continue strategic planning, despite its demonstrable success at reducing conflict, undermined the BC Liberals own energy agenda in the 2000s. When a number of renewable, run of the river power projects were proposed to meet growing electricity demand, many of these projects were strongly opposed by local and provincial environmental groups, resulting in a number of project delays and cancellations. The established regional land use plans focused mostly on forest resources and did not address siting energy facilities. As a result, there was no agreement on which areas of the province were appropriate for energy development and those that were not. Despite pressure from a variety of interests to do more strategic planning around energy, the government refused to do so (Jaccard et al 2010; Shaw 2011; Hoberg 2010).

Next to BC’s land use planning processes, the most prominent Canadian initiative in strategic land use planning has been for the oil sands region in northern Alberta. The Lower Athabasca Regional Plan (LARP) was completed in 2012. It provided regional standards for surface water quality and air quality, and most importantly created new conservation areas that increased protected areas from 6% to 22% of the region. It also committed to establishing specific targets for other regional ecosystem values (Government of Alberta 2012). The plan’s commitment to address cumulative effects and its establishment of more protected areas were welcome improvements. However, the plan only covers part of the area of oil sands development, and highly valued species, such as boreal caribou, remain at serious risk. As a panel struck to review the plan’s implementation concluded: “Despite the LARP’s new conservation areas, the cumulative impacts on wildlife have exceeded or are reaching thresholds in significant adverse effects on biodiversity, some of which are likely permanent” (Lower Athabasca Regional Plan Review Panel 2015).

Experiments with strategic environmental assessment, BC land-use planning, and the Alberta land-use plan all suggest the potential for innovative processes to improve decision quality and reduce conflict. But in many areas, SEA and collaborative strategic planning has never been tried. In some where it has, like Ontario and British Columbia, it has been abandoned as the

values of governing parties changed. In Alberta, persistent resistance from powerful resource interests has prevented the process from achieving clearer success (Urquhart 2018).

### **Explaining the political reluctance to deepen engagement**

The process literature reveals a consistent set of themes about the importance of careful, well-informed deliberation of affected interests, guided by coherent higher-level policies and plans, in promoting the legitimacy and social acceptance of decision-making. But in reality, quality processes are rarely attempted by governments. If innovative approaches have been demonstrated to reduce conflict, why are they so rarely used? To answer this question, we need to develop a strategic calculus for process choice.

Decision-making processes for energy plans and projects are a form of institutional rule adopted by governments. Scholars have differentiated between two types of institutional strategies: procedural strategies that require agencies to follow specific processes (e.g. performing an environmental assessment, or consulting with affected interests); and structural strategies that influence the organizational design of agencies (e.g. the choice between an independent regulatory commission and a more traditional line agency) (Shapiro 2017). Depending on the circumstance, information resulting from complying with procedural requirements influences decisions, and organizational structure can shape what information flows to decision-makers (Shapiro 2017). Others have explored the way different organizational structures “might shape learning about problems and solutions, policy choices, and conflict resolution in quite predictable ways” (Egeberg 1999).

Much of the literature focuses on how legislators, acting as principals, use requirements for procedure or structure to influence the outcomes from administrative agents (McCubbins, Noll, and Weingast 1987). However, strategic actors outside governments also have large stakes in structure and procedure. According to Moe and Wilson, “all political actors know that structure is the means by which policies are carried out or subverted, and that different structures can have enormously different consequences. As a result, there is inevitably a “politics of structural choice” (Moe and Caldwell 1994). In this structural politics, strategic actors in and out of government will advocate for rules and venues that give them the greatest likelihood of achieving policy outcomes that reflect their interests.

This politics of structure incentivizes various actors in energy-environment conflicts to promote different procedural and structural rules. Project proponents’ interests are normally in a stable, certain process of manageable scale and duration controlled by a single decision-maker, so that they can minimize process costs. Generally, these interests create pressures for minimal process requirements. These interests are balanced by proponents’ interest in gaining sufficient public legitimacy to minimize political risks to their projects. This combination of values is well illustrated by the Canadian Association of Petroleum Producers (CAPP) in its submission to the review of environmental assessment processes in Canada:

To achieve certainty and consistency, the EA process needs to have predictable costs, timelines and a well-defined scope. Proponents need to have a very active role in assessment preparations so they can leverage the full benefit of assessment as a planning tool and adjust their designs and execution plans as new information becomes available. In addition, the EA decision making process must be transparent and timely. Without these elements, investment in Canada's resources will continue to diminish (CAPP 2017).

Project opponents obviously have different incentives. They prefer comprehensive information requirements, widespread public access to decision processes, demanding consultation procedures, lengthy proceedings, multiple veto points, and clear rights to appeal unfavorable decisions. Opponents actually have a strategic interest in increasing process costs and delays as a way to discourage proponents.

Politicians designing regulatory processes, in addition to needing to balance these competing demands, have their own policy, budgetary, and especially electoral interests to keep in mind. They can be expected to want strong control over decisions where there is an opportunity to claim credit for favorable outcomes, and to keep an arm's length from decisions that are more likely to involve the imposition of unpopular political decisions (Harrison 1996; Weaver 1986). All else being equal, they would prefer to minimize process time and costs, but they also need to be attentive to political legitimacy. The political influence of interests opposed to or skeptical of new infrastructure projects leads both politicians and proponents to prefer regulatory processes that are more time-consuming, elaborate, and costly than they would prefer otherwise.

In some circumstances, elected officials grants discretion to administrators. Research on the incentives of administrators to integrate public engagement into policy decisions suggests support for public participation in principle, but indicates that in practice administrators are very skeptical about the practical usefulness of public participation in improving decision quality or social acceptance (Liao and Schachter 2018). When the perceived benefits of public engagement are low, managerial concerns about process costs, time delays, and a loss of control over the agenda discourage them from initiating engagement processes (Moynihan 2003).

## **Conclusion**

This paper addressed four questions. Place-based resistance can indeed be shown to have resulted in climate action. Strengthening the institutional muscles for place-based groups to block infrastructure does create risks that needed clean energy projects will be delayed or cancelled. And there is hope that more innovative processes can overcome place-based resistance. The political incentives of those who make decisions about engagement processes help explain the reluctance of policy-makers to adopt the types of processes that analysts recommend.

Place-based resistance was effective at delaying and in some cases leading to outright cancellations of pipeline projects. The anti-pipeline movement inflicted economic pain on the oil sands industry. When the Alberta and Canadian governments were run by Conservative parties, they retrenched and defied environmental critics. That changed was in 2015 by the elections in Alberta and Canada, and led to significant advancement in provincial and federal climate policy. The resistance strategy reduced oil sands production and emissions below what they otherwise would have been, and eventually forced Canadian governments to adopt stronger climate policies than they would have absent the effects of that resistance strategy. The most important thing the pipeline movement did was force the federal government to get involved in climate policy in ways that it never had. It was not the only thing or even the most important reason that this happened. But it was pivotal.

If humanity has any hope of limiting climate change to manageable levels, a massive and rapid transformation of energy system infrastructure is required. The strategic decision by the climate movement to focus on blocking new fossil fuel infrastructure may facilitate the clean energy transition. But it also risks creating a “resistance dilemma” by legitimizing place-based resistance that can then be mobilized to thwart needed clean energy infrastructure. Community resistance to renewable energy projects began well before the keep it in the ground movement mobilized, but there’s a risk that that fossil fuel resistance might strengthen clean energy resistance.

Addressing the climate crisis is an urgent imperative for humanity. But to make significant progress, the process crisis also needs to be address. The institutions and practices for energy planning and project approval requirements require urgent reform to build sufficient social and political legitimacy the coming infrastructure transformation. The experience with processes that engage the public more deeply, and do so not at the project but a more strategic level, has been hopeful. Yet the political incentives of those who design institutions for planning and project approval help explain the reluctance of policy-makers to adopt the types of processes that analysts recommend.

The most significant component of the institutional design 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. Yet if that power is taken away, local groups resent the disempowerment, and that can strengthen resistance. The engagement literature sees hope in giving communities a say, but engaging them in meaningful processes that help community members see the broader public interests being promoted by projects that have impacts on treasured local values. Giving local communities a real governance role risks resistance, but shutting them out probably results in a much great chance of impactful project opposition.



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