BORDERS IN GLOBALIZATION

Borders in Globalization Research Project 76

Go With the Flow (Im)plausibility of a Grand Canadian Intergovernmental Bargain of Energy Policy and Strategy

Christian Leuprecht

2

GO WITH THE FLOW: THE (IM)PLAUSIBILITY OF A GRAND CANADIAN INTERGOVERNMENTAL BARGAIN ON ENERGY POLICY AND STRATEGY

Christian Leuprecht

The premise of this chapter is the disconnect between energy flows and the systems of governance to which they are subject. Globalization harnesses differentials in the way cities, regions, countries, and continents are endowed with resources. The result is a vast and growing set of real and virtual flows across jurisdictions. Because these flows cross jurisdictional boundaries, their regulation may cause horizontal and vertical collective-action problems among multiple levels of government. The actual and required constitutional powers necessary for effective regulation may be misaligned across jurisdictions and selectively deployed in ways that further exacerbate regional differences. Agnew (1994) refers to the political consequences of this disconnect as the "territorial trap." In Canada, this is particular striking with respect to the production, distribution, and consumption of energy within and across provinces.

Does Canada need a national energy strategy? If so, how much government intervention is desirable to realize that end? And is an intergovernmental bargain even possible, let alone sustainable? Initially the chapter broaches these questions by initiating the reader into the effects that jurisdictional boundaries have on policy. The following section details the particular challenges that federal collective-action problems in Canada raise around energy policy. The next section walks the reader through observations about the intergovernmental dynamics that inform energy policy in Canada. The final section discusses the prospects for forging a national

strategy. To ascertain the extent to which Canada may be able to capitalize on the experience of other federations in this policy field, the conclusion situates these implications in a comparative international context.

JURISDICTIONAL BOUNDARY EFFECTS

Space is a way of making sense of the world. Geographical assumptions naturalize the political segmentation of space. The study of intergovernmental relations is particularly afflicted by such assumptions. On the one hand, the hegemonic preponderance of historical institutionalism across the field of intergovernmental relations necessarily causes scholars to gravitate toward the study of institutions, to the detriment of more sociological and ecological perspectives that transcend the institutional explanations. On the other hand, the field of intergovernmental relations is replete with methodological nationalism. By default, its units of analysis are sovereign federal, decentralized and sometimes devolved states, and their semi-autonomous constituent units.

Borders have traditionally been understood "as constituting the physical and highly visible lines of separation between political, social and economic space" (Newman 2006, 144). But their actual significance is found in the bordering process that produces them and the institutions that manage them. These institutions "enable legitimation, signification and domination, [and] create a system or order through which control can be exercised" (Newman 2006, 149). They politicize space and bring it under control. Since the people are, ultimately, sovereign, federalism is sustained by the various governments' accountability to the voters. In a diverse society, however, forging a consensus among voters' expectations is difficult. Canada's inability even to attempt to forge an intergovernmental consensus on energy policy and strategy is, as this chapter will show, a case in point. Indeed, although some might claim that Canada's provincial and national boundaries are little more than arbitrary constructs, these boundaries, their corresponding political institutions, and their territorial priorities, interests, values, and identities weigh heavily on the prospects of achieving a coherent, national intergovernmental energy policy: by mere virtue of different endowment factors, some regions are mainly producers while others are mainly consumers. Quoting Painter (1995, 47): "The state is not only a set of institutions, but a set of understandings – stories and narratives which the state tells about itself and which make it make sense." The emergence of the state has thus been contingent upon certain processes that have turned space into "state space" (Brenner et al. 2003).

Border coefficients to which policy differentials across these sovereign jurisdictions give rise are considerable, and their welfare implications are among the major puzzles in international economics (Obstfeld and Rogoff 2001). Loesch

(1954) in *The Economics of Location* reasoned that, according to neoclassic economics, the borders created by these processes are costly because they are barriers to free trade and the free flow of goods, labour, or skills. After controlling for distance and other factors, Engel and Rogers (1996, Table 3, 1117) conclude that the economic impact of the border on price dispersion across US and Canadian cities is equivalent to shipping a good 75,000 miles (although Gorodnichenko and Tesar [2009] subsequently demonstrate that this border effect is entirely driven by the difference in the distribution or prices within the US and Canada). McCallum (1995) calculates that the gravity-adjusted volume of trade among Canadian provinces exceeds provinces' trade with US states by more than a factor of 20. Provincial borders in Canada (Helliwell and Verdier 2001) and state borders in the United States (Millimet and Osang 2007; Wolf 2000) have a large and economically significant subnational border effect on decreasing substate trade flows. Ceglowski (2003) finds that provincial borders in Canada have a significant impact on intercity price heterogeneity, although the provincial border effect turns out to be an order of magnitude smaller than the estimates for the Canada-US border. Contemporary Canadian economist John Helliwell (1998, 2002) has argued that, economic integration notwithstanding, borders continue to "matter" because they delineate the boundaries of governments. They also circumscribe social networks and human interactions (Hale and Gattinger 2010). And, in federations, they reify and institutionalize autonomy with respect to manifest priorities, interests, and values among jurisdictions.

ENERGY POLICY AS AN INTERGOVERNMENTAL COLLECTIVE-ACTION PROBLEM

Flows affect multiple levels of government and multiple jurisdictions. That raises collective-action problems in achieving stable, sustainable agreements among parties. Different priorities, interests, and values make it difficult to reach agreement. In few Canadian policy areas is that more evident than in energy policy. The bulk of energy infrastructure is either in private hands or owned by Crown corporations that operate like quasi-private entities. Section 92A of the Constitution Act (1867) assigns to provincial governments exclusive jurisdiction over non-renewable resources and electricity. Much of the energy infrastructure is subject to provincial jurisdiction, some to federal jurisdiction, still some, effectively, to both. Although government may have greater leverage over Crown corporations, in the end, both Crown corporations and regular private-sector enterprises dealing with energy have massive capital investments over which government has relatively little leverage, other than to regulate or provide incentives to spur or discourage certain kinds of behaviour. The extent of private-sector ownership of critical infrastructure

exacerbates challenges for government to regulate the flows through that infrastructure. In whose interests is government to regulate: consumers or producers? consuming or producing regions? How competing interests are reconciled is at least partially a function of the government's locus of power and political support. In a country where energy policy-making and regulation is relatively decentralized constitutionally, these dynamics are bound to give rise to an array of contentious cleavages that are difficult to reconcile.

Canada has no coherent national energy policy, nor has it ever had one. From the perspective of intergovernmental relations, Canada has never had a grand bargain in this policy area, let alone sustained one. Pierre Elliott Trudeau's National Energy Policy is the *exemple par excellence* of the federal government's attempt to impose a solution top-down that prompted policy failure and regional alienation, precisely because it did not reconcile the interests of producing and consuming regions. Among provinces, however, there is some agreement, both bi- and multilateral. Although energy sources are changing, it used to be that Atlantic Canada heated primarily with oil, Quebec with electricity, and the rest of the country with gas. Ontario relies on nuclear power to generate the majority of its electricity. Ontario's demand for electricity peaks in the summer whereas Quebec's peaks in the winter. Gas pipelines flow from west to east, but also to Canada's west coast as well as southward; incipient efforts are attempting to switch the flow of some pipelines from gas to oil, to reverse the flow of others, and to build or surge capacity going west, south, and east. The extent to which these efforts have thus far been thwarted, notably by Aboriginal and environmental opposition, is a manifest example of intergovernmental collective-action problems (Alternatives North 2008; Angell and Parkins 2011; Bowles and Veltmeyer 2014; Caulfield 2000; Preston 2013; Van Hinte, Gunton, and Day 2007).

The result is a highly variegated system that largely transcends national boundaries and defies a coherent national strategy. Electricity generation and distribution offers a good example because it is not only an energy source but also a means of transmitting energy, which has the advantage that it can be generated using any number of renewable and non-renewable resources. Figure 1 illustrates why in 2003 a tree branch falling on a transmission line in Ohio caused the lights to go out across the northeast.

Figure 2 illustrates the diversity and degree of variation in fuel options for the generation of electricity across Canada's provinces.

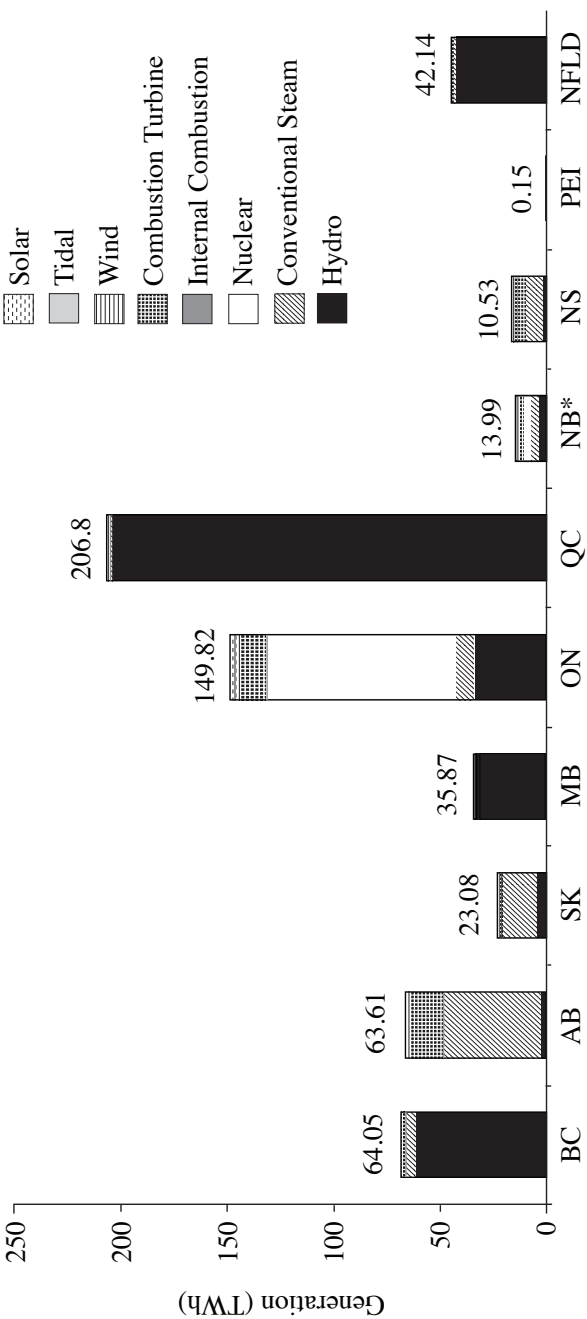
Figure 3 makes explicit interprovincial differentiation and variation in the integration of North America's electricity grid.

Figure 4 depicts the major current and planned oil trunkline network spanning North America.

Figure 1: Integrated North American Transmission Grid

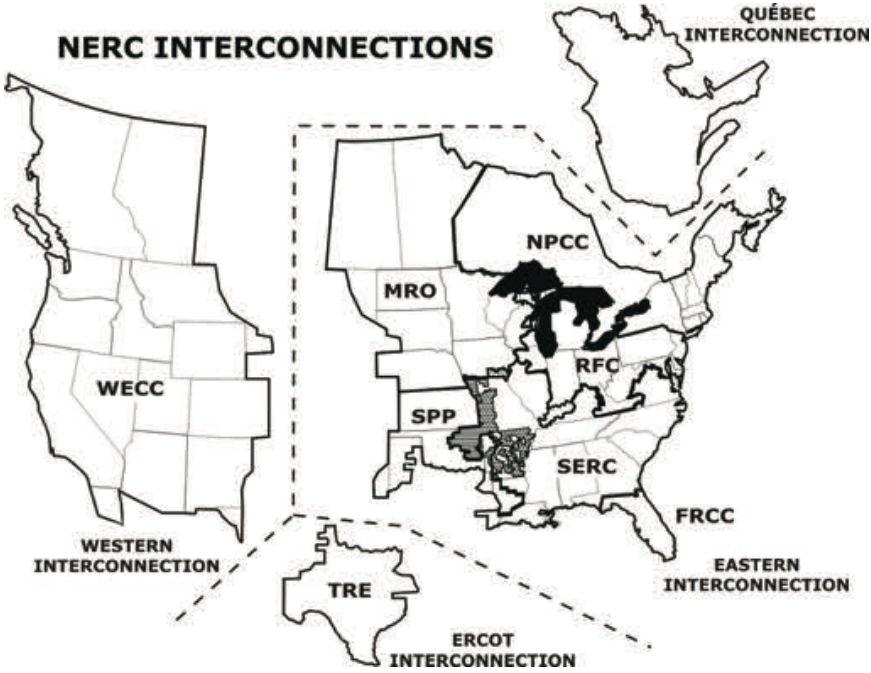
Note: Lines shown are ≥345kV interconnections between Canada and the United States; <345kV lines are not depicted.
Source: Reproduced with permission. Map copyright Canadian Electricity Association (2015, 26).

Figure 2: Electricity Generation in Canada by Province and Type of Fuel



Note: *Point Lepreau nuclear generating station resumed power production on November 23, 2012; nuclear is expected to be a major source (about 30 percent) of electricity in New Brunswick.
Source: Reproduced with permission from the Canadian Electricity Association (2015, 16), using Statistics Canada data (2013).

Figure 3: North American Electricity Grid Interconnections



Note: ERCOT = Electric Reliability Council of Texas; FRCC = Florida Reliability Coordinating Council; MRO = Midwest Reliability Council; NERC = North American Electric Reliability Corporation; NPCC = Northeast Power Coordinating Council; RFC = Reliability First Corporation; SERC = Southeast Electric Reliability Corporation; SPP = Southwest Power Pool; TRE = Texas Reliability Entity; WECC = Western Electricity Coordinating Council.

Source: Reproduced with permission from North American Electricity Reliability Corporation. This information from the North American Electric Reliability Corporation's website is the property of the North American Electric Reliability Corporation and is available at http://www.nerc.com/AboutNERC/Documents/Understanding%20the%20Grid%20DEC12.pdf. This content may not be reproduced in whole or any part without the prior express written permission of the North American Electric Reliability Corporation.

Figure 4: Canadian and US Oil Pipelines

Source: Reproduced with permission from Canadian Association of Petroleum Producers (2014, 22).

INTERGOVERNMENTAL OBSERVATIONS WITH RESPECT TO ENERGY POLICY

First, we observe a regionally segmented policy field in which the major flows run north-south or south-north, thereby traversing national boundaries. Continental integration, however, is characterized by other economic flows and transportation, thus reducing its efficacy as a distinguishing characteristic of energy. Other features of energy are more satisfactory in this regard.

For example, unlike many other economic flows, energy flows are highly oligopolistic, being dominated and directed by the interests of a few very large private-sector players. That is precisely why governments choose to regulate this policy field, to forestall market failure and distortion. Moreover, the regulatory regime for energy flows is best described not as a monopoly, but as an asymmetric duopoly: provinces regulate within their jurisdiction, the federal government regulates interprovincially. Third, energy flows constitute a policy field where development is integral to the economic and fiscal health of both the federal and the provincial governments; it thus tends to trump other regulatory concerns, such as the environment. Furthermore, this is a heavily politicized policy field, one where end users are highly averse to rising prices, most particularly for electricity. Such public resistance, of course, is hardly surprising in a northern democracy characterized by long, cold winters that make heat a basic necessity for survival. When the resulting inelastic demand of end users is coupled with considerable short-term price variability and a very high capital intensity, government intervention to minimize political and economic risks is hardly surprising. Indeed, some subfields depend for their viability on government subsidies that tend to take two forms: having government invest in or underwrite infrastructure, as is the case with nuclear and hydro power; or having government provide direct or indirect subsidies, the most obvious being the lack of insistence on stringent environmental regulation in the case of the tar sands.

Finally, the nature of government investment has changed. Until the early 1970s, for example, federal investment in energy had been substantially greater than Alberta's. This investment took the form of deductibility of resource royalties (subsequently resource allowances). Furthermore, that oil (and, subsequently, gas) requirements west of the Ottawa River had to be satisfied with western oil was a huge indirect subsidy – initially by guaranteeing demand to western producers, and subsequently by equalizing price differentials for Ontario consumers. The result is a pipeline network that runs west to east – and the Albertan battlecry "Let the Eastern bastards freeze in the dark!"

Over the past 40 years, however, there has been a paradigmatic shift whereby strategic investments in energy are now made and guided by provinces: oil in Alberta; hydroelectricity in British Columbia, Manitoba, Quebec, and Newfoundland and Labrador and, to a lesser extent, Ontario; nuclear, wind, and sun to support province restructuring to a low-carbon electricity system; the prospect (or lack thereof) of fracking across Canadian jurisdictions, and so on. Insofar as we find an energy

strategy in Canada, over the past 40 years the impetus has shifted from the federal to the provincial level of government. Effectively, the "downloading" of some dimensions of environmental assessments from the federal government to the provinces reinforces this paradigm shift. Reducing federal leverage over energy bolsters the provincial purview over energy and exacerbates the sort of collective-action problems that thwart a coherent intergovernmental approach. Absent a national strategy, energy flows across provincial jurisdiction end up being guided by market forces. They follow demand and supply on the one hand and available infrastructure on the other hand.

DISCUSSION: PROSPECTS FOR FORGING A NATIONAL STRATEGY

A plethora of dynamics militate against a national energy strategy. Canada has plenty of energy, it is just not equitably distributed – and neither, in consequence, is fiscal capacity owing to differential endowments in energy revenues (Courchene 2013). Canada does not actually have an energy-resource problem per se, merely a distributional problem that it has largely relegated to the provinces to resolve for their respective consumers. Federal countries with a national energy strategy tend to be deficient in energy endowments; their energy strategy is focused on procurement. Since international trade is typically a federal responsibility, such a strategy tends to be uncontroversial. By contrast, a strategy whose main objective is distributional will necessarily be controversial, precisely because its very premise is interregional imbalances in supply and demand as a result of territorially differentiated natural-resource endowments. Canada imports some of its energy, because it has thus far proven cheaper and easier to import oil from the Middle East to Eastern Canada than to pipe it there from Western Canada. However, the economics of this calculation may be changing. So, the question really is whether Canada needs a national energy distribution strategy. Since the bulk of the necessary critical infrastructure is in private hands or with Crown corporations, that strategy, presumably, would have to rely on incentives; the federal government does not have the necessary interest, expertise, or financing to nationalize or build more critical-energy infrastructure itself. Regulation is a relatively inexpensive alternative to government investment, especially during fiscally austere times. An alternative way for government to influence the private sector is through incentives and subsidies. The provincial and federal governments both provide such incentives to the oil patch, for instance. The most glaring one is the deductibility of resource allowances, which is so huge that it impairs the federal government's capacity to finance equalization. What may appear like a bilateral arrangement between one province and the federal government actually has significant national consequences that impair intergovernmental coordination (Courchene 2013).

What Canada does need, by contrast, is a national energy export strategy. Energy exports have become a rising revenue generator for provincial and federal governments and a significant source of employment. In a fiscally constrained environment where the opportunity to hike taxes is limited, energy has become a major focal point for government to increase revenue. In 2010, for instance, Canadian exports totalled about $400 billion, of which energy made up about 20 percent, with crude oil accounting for about $52 billion and gas about $19 billion. An export strategy is needed because energy resources are often shipped internationally from a different province than the one where they were extracted, and the federal government has primary responsibility for interprovincial and international oil and gas pipelines. The same issue necessitates federal direction for an interprovincial distribution strategy: with oil and gas especially, energy tends to be consumed in provinces different from the ones where it is extracted.

The same is not true for electricity though, much of which is consumed in the province where it is produced and the remainder exported interprovincially or internationally without intermediaries. Ontario, for instance, has a total of 26 electricity interties with two provinces and three American states (Independent Electricity System Operator and the Ontario Power Authority 2014).

With flows predominantly north-south and out of the country rather than across the country, intergovernmental agreement for a national energy strategy is likely to be difficult to obtain: by virtue of extracting and/or producing different energy sources destined to different places abroad or to various American states, provincial priorities and interests with respect to energy are highly heterogeneous. Effective coordination is further complicated by asymmetry of the federal roles in oil, gas, and electricity: the federal government continues to maintain a substantial (revenue) stake in oil and gas but has largely abrogated electricity to the provinces. Moreover, maximizing the financial return on these provincial resources is a priority both for industry and for provincial governments. Because of the relatively small size of the Canadian market, and the limited amount of refining capacity, more often than not the highest bidder is found beyond Canada's boundaries. The impediment to maximizing those returns is the necessary infrastructure to get energy sources to the highest bidder – and the environmental concerns, in Canada and abroad, about the tar sands.

An interprovincial consensus on a national energy distribution strategy is conceivable, but infrastructure priorities differ among provinces, depending on whether their respective focus is on oil, gas, or electricity. Alberta's visceral reaction to Trudeau's National Energy Program and the legacy of mistrust it fostered among western provinces vis-à-vis the federal government on matters of energy is the case in point. Similarly, the legacy of the Churchill Falls electricity agreement between Newfoundland and Labrador and Quebec continues to give pause for thought to provinces looking to strike long-term bilateral energy deals (of the sort Ontario and Quebec are exploring). The stiff subnationalistic resistance Hydro-Québec ran into when it attempted to buy NB Power exemplifies just how closely energy is wrapped up in provincial identity. Interjurisdictional squabbles about

new pipelines are legendary: Alberta and British Columbia, Alberta and Ontario, Canada and the United States.

Energy transcends mere rational interest. As a result, audience costs – understood as the political punishments leaders suffer for reneging on their public threats and promises – for any government looking to enter into an interprovincial agreement on energy, even merely a bilateral one, can turn out to be, as New Brunswick premier Sean Graham discovered in 2010, prohibitive. Moreover, different provinces hold different values, especially with respect to environmental protection, preservation, and sustainability, as interprovincial differences with respect to fracking illustrate.

Even if a consensus around distribution and infrastructure could be reached in principle, a consensus on its implementation may be even harder to reach. For instance, under the Kyoto Protocol with its premise on punishing producers ("Make polluters pay!") rather than consumers, further development of Alberta's tar sands will almost certainly have to be coupled to emission cuts in the rest of the country. Under the federal government's current approach to this policy field, that would mean an even greater disproportion of benefits accruing to Alberta and its producers than is already the case, while the rest of the country is saddled with a disproportionate amount of the costs associated with cutting carbon emissions in a national zero-sum game. This does not bode well for intergovernmental cooperation on energy and would require the federal government to change course on multiple fronts: resource-allowance deductions, distribution of the costs of curtailing carbon emissions, and the way and extent to which energy revenues are equalized across the country.

CONCLUSION

The fundamentals of the problem behind forging a national energy strategy are similar across federations with large territories: the United States, Australia, and India, for example. That is, their energy (re)sources are distributed unevenly, and they have just as great a distribution problem. Constitutionally, however, the federal governments in the United States and Australia have greater national powers in respect of energy than does Canada's federal government. As a result, regional differences over priorities and interests necessarily become a matter of national conflict and priority, and are largely carried out and settled in the federal political arena. As in Canada, critics in the United States and Australia regularly lament the absence of an actual national strategy which, presumably, is explicable as a function of the abundant resources in both federations. India, by contrast, whose states also enjoy considerable jurisdictional power in matters of energy, has challenges similar to Canada in forging a national strategy and implementing it – a significant impediment to India realizing its full potential for economic growth.

The asymmetry in policy approaches and substate strateties to which the constitutional division of powers in Canada with respect to energy gives rise, the way it has (and has not) been used by provincial and federal governments, and the way energy usage has changed in recent decades militate against a grand, horizontal and vertical intergovernmental bargain on energy policy and strategy. Trying to force one is bound to falter. Provincial and federal governments are thus left to forge their own energy frameworks through targeted incentives, often in the form of subsidies. As the German federation recently learned from sinking EUR 100 billion in subsidies to encourage a national strategy on renewable energy to materialize, the use of economic incentives can prove exorbitantly expensive while generating little actual return. Nonetheless, with critical infrastructure largely in private hands, and absent an intergovernmental consensus, the fallacy of composition is unlikely to be overcome, absent a national strategy.

REFERENCES

Agnew, John. 1994. "The Territorial Trap: The Geographical Assumptions of International Relations Theory." *Review of International Political Economy* 1 (1): 53-80.

Alternatives North. 2008. *A Response to the "Road to Improvement" Report by Neil McCrank on Regulatory Systems across the North*. Yellowknife. http://aged.alternativesnorth.ca/pdf/ANResponseToTheMcCrankReport.pdf.

Angell, Angela C., and John R. Parkins. 2011. "Resources Development and Aboriginal Culture in the Canadian North." *Polar Record* 47 (1): 67-79.

Bowles, Paul, and Henry Veltmeyer. 2014. *The Answer Is Still No: Voices of Pipeline Resistance*. Toronto: Brunswick Press.

Brenner, Neil, Bob Jessop, Martin Jones, and Gordon Macleod. 2003. *State/Space: A Reader*. Oxford: Blackwell Publishing.

Canadian Association of Petroleum Producers. 2014. *Crude Oil: Forecast, Markets & Transportation*. Report (June). http://www.capp.ca/forecast/Pages/default.aspx.

Canadian Electricity Association. 2015. *Canada's Electricity Industry*. http://www.electricity.ca/media/Electricity101/Electricity101.pdf

Caulfield, Richard A. 2000. "Political Economy of Renewable Resources in the Arctic." In *The Arctic: Environment, People, Policy*, edited by Mark Nuttall and Terry V. Callaghan, 485-513. Amsterdam: Harwood.

Ceglowski, Janet. 2003. "The Law of One Price: Intranational Evidence for Canada." *Canadian Journal of Economics* 36 (2): 373-400.

Courchene, Thomas J. 2013. *Surplus Recycling and the Canadian Federation: Addressing Horizontal and Vertical Fiscal Imbalances*. Fiscal Transfer Series no. 6. Toronto: Mowat Centre. http://mowatcentre.ca/pdfs/mowatResearch/87.pdf.

Engel, Charles, and John H. Rogers. 1996. "How Wide Is the Border?" *American Economic Review* 86 (5): 1741-79.

Gorodnichenko, Yuriy, and Linda Tesar. 2009. "Border Effect or Country Effect? Seattle May Not Be So Far from Vancouver after All." *American Economic Journal – Macroeconomics* 1: 219-41.

Hale, Geoffrey, and Monica Gattinger. 2010. *Borders and Bridges: Canada's Policy Relations in North America*. Don Mills, ON: Oxford University Press.

Helliwell, John F. 1998. *How Much Do National Borders Matter*? Washington, DC: Brookings Institution Press.

—. 2002. *Globalization and Well-Being*. Vancouver: UBC Press.

Helliwell, John F., and Genevieve Verdier. 2001. "Measuring Internal Trade Distances: A New Method Applied to Estimate Provincial Border Effects in Canada." *Canadian Journal of Economics* 34 (4): 1024-41.

Independent Electricity System Operator and the Ontario Power Authority. 2014. *Review of Ontario Interties*. Report prepared for the Minister of Energy. http://www.ieso.ca/Documents/IntertieReport-20141014.pdf.

Loesch, August. 1954. *The Economics of Location*. 2nd rev. ed. New Haven: Yale University Press.

McCallum, John F. 1995. "National Borders Matter: Canada-U.S. Regional Trade Patterns." *American Economic Review* 85 (5): 1024-41.

Millimet, Daniel L., and Thomas Osang. 2007. "Do State Borders Matter for U.S. Intranational Trade? The Role of History and Internal Migration." *Canadian Journal of Economics* 40 (1): 93-126.

Newman, David. 2006. "The Lines That Continue to Separate Us: Borders in Our 'Borderless' World." *Progress in Human Geography* 30 (2): 143-62.

Obstfeld, Maurice, and Kenneth Rogoff. 2001. "The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?" In *NBER Macroeconomics Annual 2000*, vol. 15, edited by B.S. Bernanke and K. Rogoff, 339-412. Cambridge, MA: MIT Press.

Painter, Joe. 1995. *Politics, Geography and "Political Geography."* London: Arnold.

Preston, Jen. 2013. "Neoliberal Settler Colonialism, Canada and the Tar Sands." *Race & Class* 55 (2): 49-59.

Statistics Canada. 2013. *Electric Power and Generation – Annual (CANSIM 127-0007)*. Ottawa: Statistics Canada.

Van Hinte, Tim, Thomas I. Gunton, and J.C. Day. 2007. "Evaluation of the Assessment Process for Major Projects: A Case Study of Oil and Gas Pipelines in Canada." *Impact Assessment and Project Appraisal* 25 (2): 123-37.

Wolf, Holger C. 2000. "Intranational Home Bias in Trade." *Review of Economics and Statistics* 82 (4): 555-63.