

THE POLICY- REGULATORY NEXUS IN CANADA'S ENERGY DECISION- MAKING

.....
**From Best Practices to
Next Practices**
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**SYSTEM UNDER STRESS - INTERIM
REPORT #2**

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EXECUTIVE SUMMARY

Like many other industrialized democracies, Canada faces serious challenges and crucial decisions when it comes to governing a twenty-first century energy system. These are seen in ongoing controversy over siting of wind farms, pipelines, new hydro, and transmission lines; tensions between movement on climate change and other energy objectives like oil sands development, fracking development, competitiveness and consumer affordability; and the reform of the National Energy Board, to name but a few.

One of the linchpins of a modern energy system is the relationship between policymakers and regulators when it comes to public decision-making. This interim report aims to lay out the challenges that Canada faces in this area – within and between provincial/territorial and federal levels – and to explore options for informed reform of existing systems. It builds on the workshop “From Best Practices to Next Practices: Policy-Regulatory Relations in Energy Decision-Making”, held on June 6 & 7 2017 at the University of Ottawa. This event featured a range of participants from government, Indigenous organizations, industry, ENGOs, and academia.

The discussion focuses primarily on the relationships between, and roles of, policymakers (elected officials, executive branch, and legislature) and regulators (appointed officials, their agencies, and specialized professional staff). It also addresses critical issues that affect and are affected by this relationship, including Indigenous and public involvement, and collaborative processes. It is part of the broader Public Authorities research stream of the Positive Energy project, and is a detailed extension of the *System Under Stress* paper released in early 2017. *System Under Stress* outlines several tensions underlying policy-regulatory relations.

- 1** The dividing line between policy and regulation in substantive and procedural terms, including the tension between regulatory independence and the need for communication and interaction between policymakers and regulators.
- 2** The governance of regulators by policymakers.
- 3** Planning challenges that are increasingly emerging between broad policy frameworks and detailed regulatory arrangements.
- 4** The role and place of Indigenous governments in the policy-regulatory nexus.

The paper is also informed by Positive Energy engagement and research to date (including a major research study undertaken with the Canada West Foundation), extensive literature review, case study references, expert interviews, and quantitative survey data from four case studies conducted in 2016. The following discussion and recommendations were formulated with extensive input by the Positive Energy team in consultation with senior leaders from government, industry, Indigenous interests, and ENGOs in review processes and during a two-day workshop in summer 2017. A specific set of 7 recommendations derived from the broader analysis of the paper are embedded in the rest of the executive summary below.

New and Unique Challenges in Energy Governance

There are two critical underlying conditions that dramatically affect any discussion of underlying challenges in the policy-regulatory relationship. First, energy governance is more challenging now than in the past. There is extensive evidence that new challenges have emerged in energy governance. Social and technological changes have created new expectations for regulatory processes. There is greater distrust of government agencies and most institutions. Cumulative effects of different energy activities are increasing. And complex challenges like reconciliation with Indigenous peoples, “wicked problems” such as climate change, and increasing market complexities have come increasingly to the fore.

Second, energy policymaking and regulation have unique characteristics that make them more politically challenging and complex than many other areas of regulation. Energy operates under a “triple” constraint of market and economic imperatives, environmental protection, and concerns for differing forms of security. Energy markets, for example, vary in type and situation to an enormous degree. They include hybrids of monopoly regulation and pure market competition across the entire supply chain, and throughout all forms of energy supply and infrastructure. Complex and differing subsidies are at play, and some forms of energy (e.g., electricity) must be constantly balanced in real time. Finally, recent scholarship and public responses have added a fourth imperative of social acceptance or equity to this complicated set of constraints.

Best Practices

A variety of best practices gleaned from domestic and international practice should be considered in the Canadian context. Policymakers have to create, design, and fund strong regulatory agencies, including essential rules for operation. Incorporated into regulatory design is the need to implement many of the best practices summarized below into those structures. Second, policymakers also must conduct oversight of regulators, and third, they must develop policies that guide the actions of regulators.

An important concern in the policy-regulatory relationship is regulatory independence, which is tied to the need for procedural integrity and the adjudication role that regulators perform. While policymakers operate in the political system, responding to a variety of interests and values, regulators are intended to be sheltered from short term and partisan political interests and instead to make decisions in an independent manner using evidence established by technically informed, expert analysis, but following the broad mandates of policies under which they operate, the rule of law, and the public interest. Canadian experience, like many other countries, occasionally demonstrates concerns for political interference, lack of consistency, and influence from outside parties. All of these bring concerns for regulatory capture, or lack of independence and objectivity. ***R1. Enhance interaction and dialogue between policymakers and regulators in relevant circumstances and jurisdictions while still maintaining appropriate regulatory independence.***

Governance and Accountability. The OECD describes many (relatively obvious) best practices:

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- Clear responsibilities for ministers
 - Clear articulation of policy goals
 - A national oversight body for regulation
 - Assessment of regulatory efficacy prior to implementation
 - Principles of open government: transparency, clarity, participation, public interest, plain language
 - Regulatory coherence
 - Integration of regulatory approaches across jurisdictions, and across jurisdictional levels (national, provincial, regional, local)
 - Information sharing across agencies, and between all levels of government and regulators
-

Good governance requires clarity. Policymakers and ministries need clear and well-articulated responsibilities and policy goals and policies need a degree of intelligibility and detail so that regulation is appropriately guided. This has been particularly problematic in terms of clear energy policy. **R2. Integrate improved planning with market mechanisms into the regulatory process.**

The OECD also suggests that a quasi-independent body designed to oversee, assess, and guide regulatory practices across the federal and sub-federal levels be put in place. The structure itself of regulatory agencies can be designed to strengthen impartiality. This can include guidelines for board representation, or threshold limits or requirements in terms of industry, environmental, consumer interests, diverse ideological representation, etc., to ensure balance, with an emphasis on scientific expertise. There is a compelling case for stronger coordination, sharing, and the development of guidelines that reflect Canadian circumstances; and for vigorous projection of those principles into the public debate in Canada.

R3. Implement ongoing ex ante and ex post assessment of regulations, regulatory design, institutional design, and regulatory effectiveness. We recommend the implementation of institutions or formal mechanisms to do so.¹

The 6 C's: Communication, Coherence, Comprehensive, Cumulative, Capacity and Collaborative. Further best practices focus on *The 6 C's*. Two of these (Communication, Collaborative) have critical relevance for Canada. In the absence of strong communication (and many manifestations of it), poor regulation can result, processes can become biased or incomplete, and the public can lose trust. **R4. Provide improved and effective information and communication of regulatory oversight, responsibility, and process to the public.**

The literature also argues for regulatory coherence: differing regulatory agencies and different jurisdictions (federal-provincial; province to province) should be governed by policies that achieve some level of integration, harmonization, or coordination. **R5. Develop a stronger commitment to cross institutional and cross jurisdiction regulatory coherence.**

Next, both policymakers and regulators face a need for policy direction and regulatory processes that are comprehensive and cumulative. **R6. Ensure regulatory oversight is both comprehensive and cumulative, while still balancing local impacts with a commitment to economic efficiency and public good outcomes.**

Finally, with respect to capacity, there is a need for an appropriate level of support for effective regulation.

¹ In Canada the Canadian Association of Members of Public Utility Tribunals (CAMPUT) does this to some degree, but it only addresses some forms of regulation, so a broader approach is needed.

Unique Challenges and Next Practices

Canada faces a number of unique challenges in its energy decision-making: linear projects, Indigenous authority, policy clarity, and public understanding. Several of the C's direct us to next practices that can help to address them (communication, clarity, and collaboration).

Linear projects are a challenge because they cover so many jurisdictions and communities, and because it is rare that benefits can accrue to every community whose land they cross. Canada's specific geography and energy economy context mean that it has more than its share of these concerns. They require careful balance between national need and local, regional, or provincial interests. A variety of innovative approaches have been used and should be considered both in Canada and abroad with some success.

Indigenous Authorities. Indigenous authorities and rights in Canada are complex. They include unique legal protections and are highly variable across the country. In some cases, a community's legal status creates tensions with traditional notions of the policy-regulatory relationship. Policymakers need to more explicitly consider Indigenous rights in regulatory design and operation, including *next practices* forms of regulatory governance (e.g., joint reviews, co-development and co-management, or partnerships).

Public Understanding and Trust. Public understanding of the regulatory process is poor, there are higher degrees of skepticism about its validity, and increased distrust of government. These create a toxic mix for the regulatory process. There is an opportunity for regulators and policymakers to initiate *next practices* that more effectively communicate how and what they do, and to identify and strengthen practices to increase trust.

Collaborative Processes, with Limits. There is likely an important role for collaborative processes that veer from traditional regulator roles that simply arbitrate. Extensive evidence suggests that these processes can improve the chances that a process – whether it be a project approval, electricity system planning, or ongoing monitoring of company operations – proceeds positively, with a higher degree of stakeholder and public approval. They require more time, resources, and expertise. Importantly, they still require timelines, and though they may improve processes and satisfaction, they will not always satisfy all parties, or may still result in a “no” to a specific infrastructure development. **R7. Develop more fluid, interactive, and collaborative processes (that require more time, resources, and expertise) to address particularly challenging areas of energy governance: linear projects, Indigenous jurisdictions, national policy clarity, and reduced public trust and understanding.** See also the companion on the interim report #3, *How to Decide? Engagement: Information and Capacity* (Simard, 2018).

Final Thoughts

Canada has a strong tradition of sound policymaking and regulation, but recent stresses in energy decision-making systems point to the growing need for reform. The challenges in the Canadian context are extensive, but if sufficient investment is made in processes of “informed reform,” the prospects for improving the energy decision-making landscape can bring extensive benefits to Canada along all energy imperatives: economic, environmental, security, and social acceptability. The recommendations are oriented in this direction.

INTRODUCTION

Like many other industrialized democracies, Canada faces serious challenges and crucial decisions for implementing a twenty-first century energy system. These tests are seen in ongoing controversy over wind implementation, pipelines, new hydro, the nuclear path, fracking, transmission lines, tensions between climate change and oil sands development, and the reform of the National Energy Board (NEB). The linchpin for the advancement of a modern energy system and addressing its associated stresses is the relationship between policymakers, and the regulators and regulatory systems that oversee this decision process. This interim report attempts to lay out the challenges that Canada faces in this area – at both provincial and federal levels – and to explore options for reform and/or consideration. Note that the Canadian regulatory system has many strengths and that a full-scale overhaul may not be necessary or desirable; instead, our recommendations focus on “informed reform” and careful improvements.

Regulatory decision-making in energy systems is critically important to siting, rate cases, the development of administrative law, and a host of other contexts. The relationships between policymakers and regulatory agencies are tightly interrelated across a wide variety of important areas. At the highest level, when government determines actions can be lawfully pursued, then they have an obligation to regulate activities to the degree necessary to protect the public good. Generally, we expect to see policymakers setting up broader objectives, goals, and generalized constraints in energy. This includes all aspects of the policy landscape: security,² economic benefits and costs, health and safety, environmental, social and community impacts, etc.

Alternately, regulators function to give definition to these policy outlines, and to create specific regulations, standards, rules, and markets that are effective and which operationalize the policies in specific terms, particularly as regulators adjudicate specific cases and decisions across the energy landscape.

In Canada, the majority of western industrialized democratic systems, and in other forms of government as well, policy is decided on and implemented by governments, particularly the executive branch. In democratic terms, this is done by elected politicians who enact policy and appoint regulators but also includes legislatures and government departments. Alternately, regulation is carried out by regulatory agencies, which are often quasi-independent in nature, headed by appointed officials who oversee non-partisan highly specialized professional regulatory staff.³

They are established under separate statutes, with independent governance mechanisms, which operate under defined procedures and generally are not operationally accountable on a daily basis to the government. Generally, policy and regulation are expected to function in tandem, with clear understandings of decision responsibilities, governance responsibilities, and appropriate expectations of communication and collaboration, and appropriate degrees of independence at the proper times.

² Security has multiple dimensions, and all are implied: geopolitical, cyber-security, safety, reliability, and resilience.

³ Some models allow for elected regulators.

That said, there are grey areas in this delineation. The professional and academic literature cited throughout this paper sets clear distinctions between policymakers and regulators, and indeed that policymaking and regulation are separate types of activities. However, the reality is that the clarity of distinction between these two realms can be murky. First, the term “policymaker” can be used to apply to various forms of the government including the executive branch, cabinet, the legislature, and to a lesser degree parts of the public service associated with ministries. As a result, when these terms are being used through this piece, they are used in a relatively generic sense, referring both to who they are and slightly more importantly, to what they do.

Second, in terms of the relationships between policymakers and regulators, there are many shades of grey. For instance, some regulators have high level authority to engage in the setting of policy to a great degree. For instance, recent area based (i.e., resource play) regulation by the Alberta Energy Regulator is close to becoming overarching policy for that area. Economic regulators in Canada and abroad have a legislative mandate to create “just and reasonable” rates, which leaves a lot of policy discretion to regulators (though sometimes with explicit underlying principles). In other situations, certain forms of regulatory action are legally subject to cabinet or ministerial approval.

As noted earlier, this paper is a continuation of the public authorities work of the Positive Energy initiative at the University of Ottawa (Cleland and Gattinger 2017).⁴

The *System Under Stress* mapping paper outlines several tensions for particular consideration when it comes to the policy-regulatory nexus:

- 1** the importance and clear definition of regulatory independence; and within it, the consideration of beneficial and important interaction and linkage effects between regulators and politicians;
- 2** The development and implementation of appropriate regulatory governance and accountability;
- 3** The execution of planning based on accurate evidence-based information in the context of competitive market environments and across multiple forms of jurisdiction;
- 4** The role and place of Indigenous and local governments in the policy-regulatory relationship;
- 5** The role of public opinion and understanding of regulation and regulatory independence in the Canadian context.

Each of these tensions are discussed in detail below. Throughout, the report is informed by a review of key literature, case study references, expert interviews across the Canadian energy spectrum, and survey data from four case studies conducted in 2016. The paper proceeds as follows. Section one begins first by briefly establishing two important underlying factors: (i) the unique context of energy regulation, which has some factors that make its governance more complex and difficult; and (ii) the fact that energy governance is more challenging now in the Canadian context than it has been in the past.

⁴ The public authorities project began with a “mapping paper” (Cleland and Gattinger 2017) that outlined three “stresses” in Canada’s energy landscape: understanding the role of local and Indigenous authorities (report and workshop occurred in March 2017), the interaction between policy and regulation (this paper, June 2017), and a third workshop and paper examining best practices for regulatory processes which occurred in fall 2017.

The paper then focuses on two primary sections of analysis. Section two concerns regulatory “best practices” in the Canadian context. It addresses concerns for conventional notions of regulatory best practices, with a focus on the interaction between policymakers and regulators. It considers implementation of regulatory design, regulatory independence, considerations for communication and interaction between policymakers and regulators (tensions 1 & 2), and the concerns for coherence and comprehensiveness in regulatory planning (tension 3).

Section three identifies new and difficult challenges for energy decision-making in Canada. Thus, it considers the notion of “next practices” and how the relationship between policymakers and regulators can and/or should help to address these emerging dilemmas. Several areas of special concern in the Canadian context are introduced: linear projects, Indigenous rights (tension 4), national policy clarity, and public trust and understanding (tension 5). The potential importance of less traditional collaborative regulatory processes is considered, as is the increased importance of effective communication for effective regulatory governance.

1. NEW AND UNIQUE CHALLENGES IN ENERGY GOVERNANCE

1.1 INCREASED STRESSES AND POLICY GAPS

Is there a real problem in the policy-regulatory nexus? Some might assert that challenges in policymaker-regulator interactions are relatively static – essentially an ongoing tension, difficult to resolve, and the kind of problem that has existed for decades with little change. Certainly, concerns for regulatory independence and the proper functioning of the regulatory state have existed for decades. That said, the *System Under Stress* mapping paper indicates that emergent problems exist in the Canadian context, and in modern industrial democracies. The mapping paper demonstrates that social and technological changes have created different expectations for regulatory processes, and greater distrust for the government agencies that implement them. It also clarifies many of the policy gaps that this paper addresses in part (reconciling climate issues, Indigenous reconciliation, and cumulative effects).

Beginning in 1995, the OECD (Organisation for Economic Co-operation and Development) embarked on a process to improve government regulation at the request of OECD ministers. This process resulted in a series of documents for the past 23 years that develop and emphasize the need for OECD nations to improve regulatory practices (OECD 2012, 2014). They note that regulators are now often asked to help deliver economic and social objectives, in addition to the traditional core regulatory functions (OECD 2014, 14).

In the academic literature, Malcom Sparrow (2000, 17) has argued that regulators are under “unprecedented pressure,” with mandates to accomplish quite difficult tasks. For instance, to be less intrusive but more effective in their operations; more responsive to the regulated community (regulated private sector) and markets, but not to be vulnerable to regulatory capture; to be faster yet more careful, etc. Regulators have more scrutiny, requirements, and expectations than they had in the late 20th century.

In Canada, the NEB is undergoing a modernization process that shows that there is a perception of need at the highest level of government.⁵ This process seeks to review its “structure, role, and mandate” and to ensure that Canada has a modern and effective regulator (Natural Resources Canada 2016). Simultaneously, the environmental review process is being reviewed by Environment and Climate Change Canada. Both changes have been spurred by press coverage and critiques across the country.

Second, there is a strong perspective amongst industry, regulators, and other practitioners, stakeholders, and NGOs that reform is needed. In 2016, Positive Energy examined six community case studies of energy project decision-making processes across Canada. It showed that a strong perception exists across differing participants in the policy, regulatory, industry, Indigenous, and ENGO domains that a significant problem exists, and that the problem is worse now than it has been in the past (Cleland et al. 2016b).

⁵ *The National Energy Board oversees the international and inter-provincial aspects of the oil, gas and electric utility industries, particularly in the context of linear projects such as pipelines and transmission lines.*

In part, the reason for this is a change in societal context over the last 10-20 years. Factors that drive these changes include greater political polarization, the increase in digital communication, a decline in trust in government and authorities, and greater citizen demands for public participation (Cleland and Gattinger 2017). This insight was reinforced further by informal queries with academic experts in environmental studies conducted by the author in fall of 2016. The observations of that group reinforced the perception that regulatory processes and decision-making in energy infrastructure determinations are more challenging and contentious than in the past.

In summation, it is clear that there are significant needs for regulatory reform and leadership, and that aspects of regulatory focus in the energy sector are more challenging in Canada and beyond than they have been in the past. With this in mind, the underlying landscape of the policy-regulatory nexus is the fulcrum for this kind of reform.

1.2 WHY IS THE ENERGY CONTEXT SO DIFFICULT?

Are there unique aspects to energy regulation that make it more challenging than many other parts of the regulated economy? One challenge for developing the appropriate balance and operation of the regulatory-policy nexus is that energy may indeed be a more politically challenging and complex context for implementing regulatory decisions than other areas.

Since the 1970s energy decision-making in the Canadian and US context has operated under the triple constraint of imperatives along three different dimensions:

economics (markets, including regulated monopolies), environment, and security (Lawrence and Wengert 1973; Deutch 2011; Bordoff 2016). More recently, Gattinger has argued persuasively that social acceptance should function as a fourth primary constraint (Gattinger 2012). In a similar vein, others have argued broadly for a fourth dimension of equity. It is hard to imagine a policy realm that needs to function under the combined effect of four such politically contentious and complex forces and of course still function under rule of law.

In addition, and particularly because of security and economic concerns, energy markets function under a variety of monopoly, non-competitive, or subsidized situations, making market regulation more difficult. This occurs in terms of transportation and distribution of energy in pipelines for oil and gas, and especially in transmission and distribution and system management in electricity, where demand and supply need to be balanced at all times on the grid. Regulated monopolies manage electricity in many contexts, and government or quasi-governmental entities own a variety of upstream and downstream energy sources and services.⁶

In the movement towards increasing competition, we have seen complicated efforts to liberalize markets with a wide variety of both successful and unsuccessful outcomes. Finally, energy markets in the U.S. and Canada are significantly subsidized (for fossil fuels and clean energy systems) in a wide variety of ways that complicate market outcomes in various ways (Bacon, Ley, and Kojima 2010; Coady et al. 2016; Environmental Law Institute 2009).⁷

⁶ In this paper, upstream and downstream refer to the physical and market process in energy production. The term can also be used in terms of regulatory process. It is not used that way in this paper.

⁷ The literature on energy subsidies is voluminous, complicated, and contentious. Subsidies occur for a wide variety of reasons, often for public interest objectives, and occur upstream and downstream, across the energy sector space.

In the Canadian context, Inuit, First Nations, and Métis rights, treaties, and interests have enormous importance in the energy landscape because so many upstream production facilities and distribution infrastructure are based on their lands (or traverse it). This important interaction requires additional and extensive regulatory expertise to navigate because of the differentiation in rights and authority exercised in different Indigenous groups. The decision by the Federal Court of Appeals (and Canadian Supreme Court refusal to hear a reciprocal appeal) to strike down the Northern Gateway Pipeline decision because of lack of adequate consultation reinforces this notion (Clogg et al. 2016; Proctor 2016). Going forward, there is some degree of uncertainty as Canada attempts to clarify the nature and degree of Indigenous authority across different types of energy development and contexts.

Many energy activities function across large landscapes (hydro, oil sands, windfarms) or in linear fashion (pipelines, transmission lines, oil transport by rail,⁸ nuclear waste transportation) that impact not one or two, but multiple communities across vast distances. This means that addressing the always demanding challenge of engaging communities and developing conditions of social acceptance is particularly difficult. This is complicated further because we lack similar clarity in balancing the role and powers of provinces and the federal government in all of these activities.

To add to the complications, the public is often contradictory in its energy expectations; citizens want energy that is simultaneously plentiful, cheap, environmentally clean (Ansolabehere and Konisky 2014), and essentially invisible from a social acceptance perspective. There is little clarity as to when energy is an essential good for heating, transportation, or day to day life (i.e., available, affordable, essentially an

entitlement or component of social welfare, especially for low-income citizens) versus a commodity that should function entirely under a market paradigm. Further, these perceptions (or lack of) are reinforced because costs are hidden, or only visible in ways not immediately tied to usage. Users expect the benefits of highly reliable energy resources at their disposal but rarely see those costs, or associated negative externalities at the time of use. Further, the public is notoriously resistant to many forms of energy infrastructure in close proximity to their homes and businesses.

These public forms of contradiction show up in government as well both in terms of how administrations reconcile (or don't) their policies concerning energy, and also contradictory simply in the fact that different administrations have drastically different priorities. Canada has seen drastic changes in government position and rhetoric between the Harper and Trudeau administrations. Extraordinarily high levels of public attention and politicization nationwide add to the pressure that regulators face.

Lastly, energy is the linchpin for everything else in the economy. It is the enabler of a multitude of other economic activities, essentially functioning as a first order economic requirement. This means that its importance from a broad security perspective is vital (Kalicki and Goldwyn 2013; Ekins, Bradshaw, and Watson 2015). Thus, energy regulation has more constraints and more complications than many other areas of concern. Constraints of economics, environment, security, social acceptance, large scale linear impacts, high public expectations, and the importance of energy to all other facets of the economy contribute to the notion that energy truly is more difficult to regulate.

⁸ Note that transport of oil by rail requires no public reviews in virtually all Canadian and U.S. contexts, as compared to oil pipelines or transmission lines.

In Canada, there is an enormous diversity of regulators who have primary or lesser roles in energy decision-making. Many, if not most, function at the provincial level. Often it is easy to lose track of the range of regulatory types, oversight, and variation. To provide context, some illustrative examples are provided in **Table 1** below.

It demonstrates that regulatory bodies have extensive modes of latitude, jurisdiction, power, and differences in virtually every way possible. This creates a high level of complexity that all stakeholders and the regulators themselves have to navigate effectively.

TABLE 1
Examples of Canadian regulators and bodies with quasi-regulatory functions

Institution	Jurisdiction	Mandate/notes
Island Regulatory and Appeals Commission	Provincial/territorial (Prince Edward Island)	Independent quasi-judicial tribunal established under the Island Regulatory and Appeals Commission Act. Mandate includes the administration of various provincial statutes concerning economic regulation and the hearing of appeals under planning, tax, and residential rental property legislation.
National Energy Board ⁹	Federal	Key mandate is the regulation of pipelines, energy development and trade, taking economic, environmental, and social implications into account. It also includes the regulation of the complete life-cycle of energy infrastructure.
North American Electric Reliability Corporation (NERC)	International (United States, Canada, and Mexico)	The mandate includes setting standards, assessing reliability, monitoring power systems, and training personnel. Their goals are to maintain reliability and security of the North American power system. The Federal Energy Regulatory Commission and Canadian government authorities provide regulatory backstopping.
Squamish Nation	Indigenous jurisdiction	The Squamish Nation has developed its own project assessment process that runs independent of the Crown environmental assessment process. This is enforced on a proponent by proponent basis. Squamish Nation environmental assessments and agreements have been completed for an LNG project and associated pipeline. (Squamish Nation 2016; Bruce and Hume 2015).
Saskatchewan Rate Review Panel	Provincial/territorial (Saskatchewan)	The Panel's mandate is to advise the government on energy and auto insurance rates, providing independent public input to ensure rates are fair. Applications for rate changes are submitted by the Crown corporations SaskPower, SaskEnergy, and Saskatchewan Government Insurance Auto Fund and evaluated by the Panel. The cabinet makes the final decision.

⁹ At the time of writing, an Act to replace the NEB with the Canadian Energy Regulator is before the federal Parliament.

Institution	Jurisdiction	Mandate/notes
Ontario Municipal Board	Provincial/territorial (Ontario)	Independent adjudicative tribunal with the mandate to rule on matters related to specific provincial legislation, mostly concerning the Planning Act and the Expropriations Act. The goal is to ensure that municipal planning and provincial policy align – can often affect energy development.
Régie de l'énergie	Provincial/territorial (Québec)	Economic regulation agency whose mandate includes the setting of rates and market conditions for electricity and natural gas. The objectives include consumer protection, sustainability, and fairness toward energy companies. The Régie also addresses consumer complaints against electricity and gas companies.
Alberta Energy Regulator	Provincial/territorial (Alberta)	The mandate includes the regulation of Alberta's energy resource activities that require approval under one of the provincial energy statutes, the public lands or environment statutes. The mandate also includes decision-making on energy development applications, compliance monitoring, and energy resource management.
Nova Scotia Utility and Review Board	Provincial/territorial (Nova Scotia)	Independent and quasi-judicial body with regulatory and adjudicative mandate reporting to the government through Department of Finance. The mandate is the regulation of a wide range of issues including consumer protection, gambling, and energy resources such as natural gas distribution and pipelines.
Vancouver Fraser Port Authority	Local (federal port lands in and around Vancouver)	The Authority was established by the federal government under the Canada Marine Act and is accountable to the Minister of Transport. Its responsibilities include permitting, environmental reviews, planning, infrastructure development, patrolling, communication and cooperation with stakeholders.
Canadian Nuclear Safety Commission	Federal	The mandate includes the regulation of nuclear energy and materials to ensure the protection of health, safety, security, and the environment. The mandate also concerns the implementation of Canada's international commitments on the peaceful use of nuclear power and communication with the public.
Independent Electricity System Operator	Provincial/territorial (Ontario)	Crown corporation established under the Electricity Act of Ontario. Its mandate includes management of the power system in real time, long-term planning of electricity supply and demand, promotion of electricity conservation, and oversight of the wholesale electricity market.
Nunavut Utility Rates Review Council	Provincial/territorial (Nunavut)	Advisory body to the minister responsible for the Qullig Energy Corporation that was established under the Utility Rates Review Council Act in 2001. The primary mandate is to advise the Minister in decisions about power rates.

2. BEST PRACTICES IN THE CANADIAN CONTEXT

2.1 THE POLICY REGULATOR RELATIONSHIP: INTERACTION AND INDEPENDENCE

Comparatively speaking, Canada has a strong set of regulatory institutions for overseeing its energy systems. That said, it is useful to review the existing literature on regulatory best practices to be reminded of how and why they are important, and to consider whether there are areas that might be altered or improved.

Interaction between policymakers in government and regulators has multiple considerations. For the effective realization of regulation, policymakers have to create strong regulatory institutions, oversee them appropriately, and develop effective policies that the regulators can implement. Thus, the relationship between policymakers and regulators occurs as follows. (i) First, in the way that policymakers structure regulation; thus, in the way they create, design, and fund regulatory agencies and essential rules for operation. Have politicians and policymakers created regulatory structures and institutions that follow best practices for independence, transparency, and efficiency? Next, this relationship manifests itself in the ongoing day-to-day business of the oversight of regulators and regulatory development undertaken by policymakers. (ii) Policymakers oversee the general activities of regulators (oversight function). Finally, (iii) they develop policies (regulatory development) which guide the actions of regulators. They must do all of these things with considerable deference to regulatory independence, an issue we discuss in the following paragraphs.¹⁰

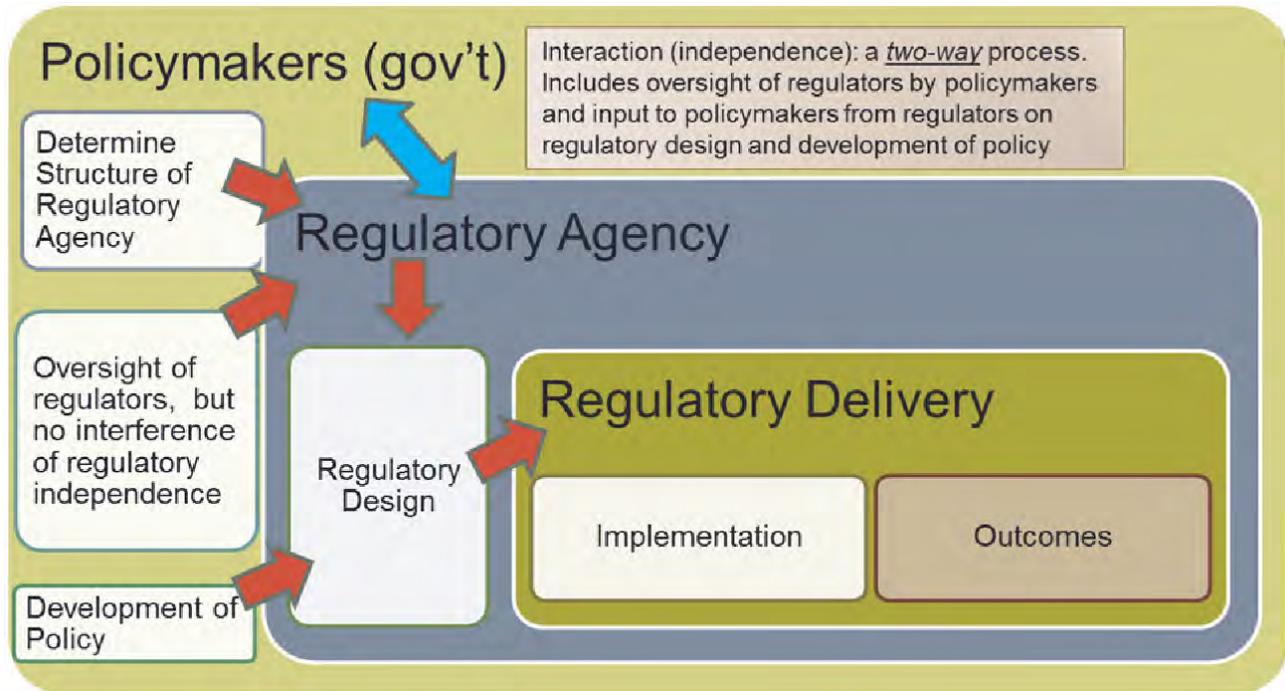
In general, economic regulation occurs and is needed for a variety of reasons. “1) the government is interested in overcoming information asymmetries with the operator and in aligning the operator’s interest with the government’s interest, 2) customers desire protection from market power when competition is non-existent or ineffective, 3) operators desire [appropriate] protection from rivals, or 4) operators desire protection from government opportunism” (World Bank and University of Florida Public Utility Research Center (PURC) 2012). Similarly, environmental regulation occurs as a way to protect the public and public goods, and to reduce the impact of negative externalities and common goods problems.

Using the previously discussed resources and also in previous work (OECD, PURC, World Bank, Cleland and Gattinger 2017), a broad outline of the framework for the policy-regulatory nexus is shown in Figure 1, and described on the following page.

¹⁰ While the role of policymakers is critical, many of the ongoing rules of process and substance are developed by the regulatory agency alone. These are public hearings rules, rules to refund participants, to communicate with stakeholders, and many other kind of tools (scoping meetings, written hearings, negotiation processes, etc.). These have enormous impact on the concrete functioning of regulation in a day to day perspective. More attention was given to these issues in Interim Report #3 of Positive Energy's Public Authorities research stream (How to Decide? Engagement: Information and Capacity, Simard, 2018).

FIGURE 1

The Policy Regulatory Framework



1 Policymakers in government determine the institutional design: i.e., the structure and basic operations and constraints of the regulatory agency.

2 Policymakers enact policies for the regulatory agency to implement. The development of policy may include guidelines for regulatory design, yet most remains with the regulatory agency.

a The regulatory agency will often be responsible for a significant portion (all or some) of the regulatory development. At the same time, decisions from regulatory agencies should respect the underlying principles and orientations of the policies that come to them.

b Crucially, the process of interaction between policymakers and regulators includes communication from regulators to policymakers (hence the two-way arrow) so that they are informed by the regulator's expertise. Thus, regulators can contribute to institutional design and policy development.

3 Finally, regulations are implemented, and contribute to the achievement of policy outcomes. Throughout the process policymakers and regulators must interact regularly, but only in appropriate ways, safeguarding regulatory independence as appropriate.

2.2 REGULATORY INDEPENDENCE

A crucial concern is regulatory independence, in which regulators are insulated from the political arena and able to make substantive, well-informed, and independent decisions. The rationale is to create a system of procedural integrity consistent with the adjudication role that regulators must implement. Entities and processes with direct political accountability often operate in a more subjective, less formally structured and less transparent manner. Politicians and policymakers defer to regulatory agencies because high levels of technical, apolitical expertise are needed. Canadian jurisprudence does not provide specific guidance on regulatory independence when it comes to the relationship between regulators and policymakers. Instead, it focuses on whether or not there has been a fair and impartial hearing for participants in regulatory tribunal hearings.

However, the broader scope of energy decision processes are often inherently political much of the time, and the practice of regulatory decision-making can be influenced by political processes in a variety of ways. As a general rule, policymakers (including senior level, executive branch civil servants) and politicians operate in the political system. They respond broadly to the values, interests, and concerns of society. This includes voters, but also the private sector, civil society non-profits, communities, regions, lobbyists, interest groups, and other forms of constituents. Of course, they respond most critically to the political imperative of re-election via the ballot box.

Regulatory agencies, meanwhile, generally focus on more technical, expert and evidence-based issues. They are supposed to be sheltered institutionally from political interests except for the balancing points between different interests that are laid out in the policy frameworks they follow. This is a historical and institutional choice on the part of government policymakers across most advanced industrialized democracies to have decisions made on neutral and evidence-based grounds, and above the partisan fray. This is particularly important to the notion of public trust, and evidence-based decision-making that is supposed to inform the regulatory process. In energy this means that the decisions about individual energy projects, detailed rules for energy markets, and energy security, environmental, health and safety concerns are made independently. Theoretically, regulators are better positioned to make decisions on projects or processes in the public interest, including many that will have repercussions for decades to come.

That said, it is also possible for policymakers in government to provide too little guidance, particularly in contentious areas that involve strong political disputes. In such situations, policymakers have abdicated their responsibility to make “hard choices”; they have essentially left the regulators to pick up the mess, and to become embroiled in political debates that politicians have avoided. For instance, the tensions between climate and fossil fuel extraction are discussed later in this paper as an area that lacks policy clarity. Ultimately, policymakers in government must provide clear guidance and policies to regulators (especially on what key objectives and values underpin the public interest), and then defer specific decision-making to the regulatory bodies.

The Canadian experience has differing dynamics. In some cases, independence can be extraordinarily high, and in others it may seem that politicians and policymakers are paying little attention to regulatory agencies. This is complicated by the idea that the appropriate degree of independence from government may (and should) vary across regulatory agencies; there is likely not a universal “one-size-fits-all” solution for regulatory independence. The OECD guidance on regulation focuses on several important areas of interest to this discussion (OECD 2012). Concerns most pertinent to this discussion are summarized as follows:

-
- Clear responsibilities for ministers
 - Clear articulation of policy goals
 - A national oversight body for regulation
 - Assessment of regulatory efficacy prior to implementation and in a review context
 - Principles of open government: transparency, clarity, participation, public interest, plain language
 - Implementation of regulatory coherence
 - Integration of regulatory approaches across jurisdictions, and across jurisdictional levels (national, provincial, regional, local)
 - The development of information sharing across agencies, and between all levels of government and regulators
-

There is an extensive literature on the value of regulatory independence that supports the logic of insulating regulators from political decisions. Edwards and Waverman (2006) have shown that regulators are responsive to interests in political ways, for instance, with the potential to favor publicly owned incumbents, but that mechanisms of regulatory independence significantly mitigate these forms of political influence (Simard 2014).

The primary challenge occurs if the process is threatened by direct political interference or is not appropriately structured for independent and neutral regulatory action. However, regulatory independence can also be threatened by political actions taken outside the regulatory process. Potential harm can occur to public perceptions of regulation when political actions indirectly interfere in regulatory proceedings. Regulatory agencies are set up explicitly to ensure decisions are taken on the merits of objective components concerning safety, costs, benefits, environmental impacts, and other factors.¹¹

The question ultimately is when and under what circumstances political and policy decisions should impact regulatory decision-making. The question of politics in the policymaking realm is a difficult one however.

Several Canadian cases demonstrate some of the challenges just discussed. For instance, political decisions by the provincial government in the Ontario natural gas-fired power plant cases reinforced public opinion that political interference was at play in the outcomes of two gas plants in the greater Toronto area. In Oakville, the government’s decision to cancel an 800 MW plant after it was approved, and a legislative override of the Green Act in King City served to reinforce the concern that regulatory decisions were being made or overridden for political concerns (Bird 2016).¹²

11 *There are certainly valid questions about the potentially ambiguous nature of the term “objective” – for instance, how to reconcile scientific, Indigenous, or traditional knowledge. Further, there is a temptation to allow politicians to interfere when new public priorities arise that are not covered in a regulator’s mandate. That said, usually the appropriate response in such cases should be to conduct a policy review, rather than directly interfering with a regulatory decision or case.*

12 *In both of the Ontario cases, the provincial government overrode a regulatory decision made by an independent agency.*

Most recently, the Energy East Pipeline hearings were suspended in 2016 because National Energy Board members met privately with politicians who had been retained to represent the pipeline developer (McCarthy 2016). Whether a mistake, oversight, or something more innocuous, these events seriously undermined the public perception of regulatory independence that is so critical to public trust. In a different context, New Brunswick's energy ministry is devoted both to promoting the shale gas industry and also regulating it. In situations like this, there can be legitimate concern for regulatory capture (Fast 2016).¹³

Transparency concerning rules, criteria, the weighting of criteria, processes, information provision, and regulatory decisions is key to regulatory efficacy and to building public trust in regulatory decision-making. The need for transparency also extends to the assumptions and values underlying the scientific, engineering, or financial evidence feeding into regulatory decisions. A variety of evidence indicates there are places that Canada could do better in this arena. In most cases, a regulator's written decision should include: what it heard, what it did, and what it decided not to do – and why. One positive example is in Québec where the Bureau d'audiences publiques sur l'environnement (BAPE) summarizes a large part of each witness' testimony, even if not adopted into recommendations, and explains and justifies them clearly.¹⁴

2.3 REGULATORY GOVERNANCE AND ACCOUNTABILITY

Another important role of policymakers is to ensure that regulation is being implemented well and abiding by best practices. Oversight of regulators by policymakers can be facilitated through the use of regulatory reviews both before and after regulatory processes.

The expert literature (OECD, World Bank) suggests the development of a quasi-independent government agency for regulatory effectiveness. Such an agency would have responsibility to conduct transparent reviews of executive and ministerial level conduct as a way to encourage appropriate performance from both policymakers and regulators. This can be done even if qualitative measures are used in systematic ways (Kaufmann, Kraay, and Zoido-Lobaton 2000). It can be somewhat more difficult to assess the appropriate effectiveness and non-interference of policymakers but an independent regulatory review agency can provide similar kinds of ombudsperson style appraisals. This could include a specialized sub-agency responsible for optimizing Indigenous engagement in regulatory processes.

The OECD has developed an extensive literature on best practices for regulatory development, the interaction between policy and regulation, and the policies that oversee regulation. In particular, they recognized the importance of determining the structure of an agency as an essential aspect of the relationship. More broadly, they also argued for developing a consistent policy (by politicians, governments, and policymakers) "covering the role and functions of regulatory agencies in order to provide greater confidence that regulatory decisions are made on an objective, impartial and consistent basis, without conflict of interest, bias or improper influence" (OECD 2012, 4).

¹³ *Regulatory capture: when a regulatory agency that is supposed to act in the public interest instead advocates for the commercial interests of the group it oversees, it is said to be "captured." A regulator could be captured by other powerful interests, though this occurs less often. In the Indigenous context, tribunal representatives run the risk of being captured either by development interests, or narrower interests within their community, when in fact their role is as adjudicators for the broader good of their jurisdiction.*

¹⁴ *It is not a formal regulator in the decision-making sense (it serves an advisory role).*

Thus, the ways in which policymakers may structure regulatory operation and implementation can in and of themselves bias or prejudice the regulator. Alternately, rules can be structured to reduce those concerns. As an example, regulations concerning governance membership at some American ISOs (independent system operators who regulate electricity markets) have guidelines for representation on their boards or threshold limits in terms of industry, environmental, consumer interests, etc., to ensure that the boards are not unduly biased (Bird 2002; Brown 2002). Similarly, appointments at Public Utility Commissions or at the Federal Energy Regulatory Commission in the United States have mandates or norms concerning representation from each party (balanced partisan representation).

In Canada, this is occasionally a challenge. For instance, criticisms have been leveled at the implementation of NEB oversight by Canadian policymakers. In 1991, the NEB was moved to Calgary by the national government, with a requirement that employees of the agency reside there. Some have argued that this had the potential effect of creating regional bias and/or regulatory capture because of the extensive dependence of that particular region's economic health and representation in the oil and gas industry.¹⁵

Second, the lack of a requirement for diversified perspectives on regulatory boards can create concerns for regulatory capture or revolving doors (when industry personnel move into regulatory roles and back). Simard notes these concerns have occurred with the Régie de l'énergie du Québec (Simard 2010, 2014). As noted above, the NEB members have been at times strongly represented by industry, which can create the perception of a captured regulator (Hunter 2014; Wilt 2017; Sparrow 2000).¹⁶

The World Bank and OECD literature strongly recommends practices that ensure that a diversity of perspectives and interests are represented in regulatory bodies, with an emphasis on scientific, economic, and relevant professional disciplinary expertise.¹⁷

More recently, the federal government created legislation (Bill C-38) in 2012 that required cabinet review and the potential for rejection, reversal, variance, or reconsideration of NEB decisions. This included the possibility of approving decisions which had been rejected, or alternately modifying, circumscribing, or rejecting decisions that had been approved. It also reduced the scope of review by the Board, and extensively reduced environmental review of projects across the country.¹⁸

In this particular case, the legal restructuring of the regulatory process is clearly legitimate in a strict legal sense (Caron 2014), but goes against much of the advice and spirit of OECD and World Bank best practices and recommendations (Manning 2012; Voices-Voix 2016; Kirchhoff and Tsuji 2014). For instance, it reduces the scope of regulatory review, sets the determination of environmental review within the Ministry, and makes final regulatory decisions subject to government review. It should be noted that some of the changes reducing scope were to decrease regulatory duplication. Further, regulatory decisions were arguably already subject to government review and possible override.

15 *One of the arguments at the time was that the vast majority of activities requiring regulation were occurring in the west, and thus that the regulator should be based in the same community. That said, Canada is the only industrialized democracy whose primary national energy regulator is not based in its capital city.*

16 *Note there are no clear measures for regulatory capture, thus it is generally a perception concern.*

17 *Of course, regulators are supposed to adjudicate and regulate without bias, not "represent" per se.*

18 *There are extensive nuances to this legislation. Prior to Bill C-38, Cabinet could overrule regulators and reject an approval. In 2012, rejections could now be overruled as well. Arguably, both aspects of overrule go against the spirit of regulatory independence.*

2.4 THE SIX C'S: COMMUNICATION, COHERENCE, COMPREHENSIVE, CUMULATIVE, CAPACITY, COLLABORATION

Several factors are vital considerations for policymakers and regulators to consider in the development and implementation of policy and regulation. These concerns provide a contextual basis that policymakers should be taking into account in terms of regulatory design, outcomes or assessment. Most of these factors are essential to Best Practices (Part 1 of the paper), but also later extend into the second part of the paper on Next Practices (Part 2).

2.4.1 Communication. A different problem for regulators occurs when policymakers or government are not able to integrate feedback, or simply ignore or do not ask for it, from regulators. This issue is significant and has been noted as an important gap in current Canadian energy governance in Positive Energy's recent mapping paper on energy stresses (Cleland and Gattinger 2017). Often regulators and regulatory staff have high levels of expertise and technical knowledge that can inform or affect the broader business of policymaking, as well as access to the views and knowledge of multiple stakeholders. While governments must maintain their appropriate oversight and direction in terms of the development of policy, having a transparent and open relationship with regulators can strongly improve the quality and efficiency of policies.

There are three ways in which communication is critical to the policy-regulatory nexus:

1 Policy-Regulator Communication

- Policymakers must communicate clear policy goals to regulators.
- Interactive dialogue and communication between policymakers and regulators concerning broader policy and regulatory implementation to improve, adjust, and assess regulatory efficacy should be ongoing (without jeopardizing regulatory independence).

2 Interagency Communication

- Regulators have a need to communicate with other regulators (as relevant) to address issues such as coherence or overlap.

3 Outward Communication

- Both policymakers and regulators need to effectively communicate with communities, lower level authorities, stakeholders, and the public at all stages of regulation (regulatory development and project decision making before-during-after). This includes information about their structure, about their process, and about specific cases they are engaged with.

Regulators sometimes lack clear policy communication from policymakers, often concerning highly contentious areas (e.g., climate change). In these situations, the regulatory arena is flooded with political questions that have not been clearly resolved at the provincial or national level. The lack of clear principles or legislation for broad questions such as this means that the issue is politicized within the regulatory process, and is potentially addressed inconsistently. Clear examples of these problems exist in Positive Energy case study research. Notably, research examples include the Northern Gateway Pipeline, New Brunswick's fracking decision, and the St. Valentin wind farm in Québec (Cleland et al. 2016a).

Second, extensive evidence from Positive Energy case study research demonstrates that in some cases, ministers, government policymakers, and executive branch departments are not seeking feedback, or lack two-way dialogue with regulators. Evidence from the Toronto gas fired power plant cases demonstrated that provincial policymakers enacted policies with minimal input from regulators prior to enactment, creating expensive and problematic decision implementation from 2008-2012 (Bird 2016).

Finally, the need for more clear communication to the public needs to be reinforced by policymakers to their regulatory agencies across every level of the regulatory process. This is discussed in greater detail in the Public Perspective section later in the paper.

2.4.2 Coherence and Planning in Policy and Regulation.

Another aspect of the relationship between regulators and policymakers is that both regulators and government function at national and provincial (and perhaps even local/regional) levels. This means that regulators at either level have to consider their relationship with provincial and national-level governments. Likewise, provincial level policymakers may need to consider their relationship with regulators at both the national and provincial levels. Hence, the OECD's concern for the promotion of "regulatory coherence through co-ordination mechanisms between the supranational, the national and sub-national levels of governments" (OECD 2012, 5). To clarify, this is not a requirement for uniformity, but rather a consideration for integration of differing policies, or harmonization. This tension, especially in the context of federalism, can be difficult to resolve. In Canada, the Canadian Association of Members of Public Utility Tribunals (CAMPUT) has been instrumental in improving coherence, but more can be done in this arena.

OECD guidelines suggest a variety of best practices which are potentially at odds with policymakers who may wish at times to defer from setting clear policies, or alternately may inappropriately interfere with regulatory processes during or after the fact, despite the clear need for regulatory independence. This tension is exacerbated by the additional need for regulators and policymakers to interact on an ongoing fashion. Communication needs to go in both directions, must be substantive in nature, and needs to be constrained by guidelines for regulatory independence.

Planning involves the consideration of multiple factors, interactions, and effects; potentially across multiple jurisdictions or large regions; has to occur within both policy and regulatory implementation; and often has to involve considerations for decisions over decades. It is fundamentally at odds with market systems and democratic governance, which often emphasize the short term (but have to consider the long term). Nonetheless, both policymakers and regulators have to find ways to hybridize or integrate aspects of planning along with the imperatives of market competition and investment, and the short term political realities of democratic governance and elections.

A significant challenge in the notion of regulatory independence is that often both policymakers and regulators are trying to navigate regulation across a variety of market contexts. In particular, they may be addressing energy policy and regulation in government owned regulated monopolies (e.g., Hydro-Québec), quasi-independent or regulated monopoly entities that also compete against independent businesses (e.g., electricity deregulation in Ontario or Alberta), or wholly private enterprises which have significant public goods considerations (both positive and negative) such as pipelines.

The challenges of navigating liberalization in energy markets are well established and additional commentary follows on this issue later in the paper (Armstrong and Sappington 2006; Griffin and Puller 2005; Quinn 1999; Kleit 2006).

There are good examples of this process in Canada. For instance, the Site C assessment between British Columbia and the federal government in the Joint Review Panel Process¹⁹, the generic hearings on the uranium sector in Québec²⁰, or the Energy and Mines Ministers' Conference.²¹ The challenge is to ensure that these harmonization processes occur in all contexts, and second, that they are effective.

2.4.3 Comprehensive Policy which considers Cumulative Effects. An additional area which has received attention and concern in Canada is the question of whether regulatory policy is comprehensive, including the consideration of cumulative effects from multiple activities or developments.

The concern for comprehensiveness derives from concerns that regulatory oversight may not adequately address all forms of impact from a given policy or development. In the context of siting, these can include all aspects of environmental impacts (air, soil, health, toxics, watershed, resource use, etc.), community impacts, safety, future risk, remediation, community and social cohesion or quality, economic impacts, and cumulative impacts and risks from multiple projects (Glasson, Therivel, and Chadwick 2012; Noble 2015).

An extensive literature exists on Strategic Environmental Assessment (Fischer and International Institute for Environment and Development 2007) which integrates many of these concerns, and is addressed in greater detail in Positive Energy's Public Authorities' interim report #3, *How to Decide? Engagement: Information and Capacity* (Simard, 2018).

For policymakers, the critical question is in institutional design. Does policy create regulatory institutions that provide comprehensive regulatory oversight? Do regulators have a policy mandate to do so? If regulatory oversight is spread across multiple agencies, is there a way that the public and stakeholders understand which agencies oversee different concerns and issues?

When multiple agencies are involved in review or regulation, often policymakers have designed institutions that provide a single point of contact or "one-stop-shop" for addressing all aspects of a project or regulatory implementation. For instance, in the U.S., Massachusetts relies on the Energy Facilities Siting Board as the single point of contact for all aspects of energy development (MA Office of Energy and Environmental Affairs 2008).

¹⁹ <https://www.canada.ca/en/environmental-assessment-agency/services/environmental-assessments/basics-environmental-assessment.html#panel02>.

²⁰ In Québec the BAPE (Bureau d'audiences publiques sur l'environnement) developed a form of strategic environmental assessment (generic hearings) amongst the James Bay territories, in Nunavik, and via the Kativik Environmental Consultative committees. Signed by all the entities, it functions as a form of co-ordination mechanism between the provincial level and indigenous governments.

²¹ <http://www.nrcan.gc.ca/publications/11102>.

Cumulative effects arising from multiple development activities which may be outside of an energy regulator's review mandate can also be explicitly addressed. For example the BC Oil and Gas Commission uses an "Area Based Analysis" approach to coordinate assessments of impacts of oil and gas exploration with impacts of forestry and other activities (BC Oil and Gas Commission 2016). If the one-stop approach incorporates a holistic approach to multiple regulatory concerns and integrates numerous forms of expertise, it can actually enhance decision-making.

A secondary issue then relates to the sequence in which tasks should be performed in a project assessment or a regulatory process. That is, to determine what planning, public engagement, and scoping activities should have already taken place before a regulatory agency first becomes involved in the project assessment process. There are not definitive answers to these questions, and they depend on contextual factors, but paying more attention to the question of sequencing order certainly requires more attention, especially for newer forms of collaborative processes discussed later in this paper.

Similarly, cumulative effects have long been a part of the standardized literature and guidance on best practices for regulatory review of energy projects, but it is not consistently adopted (Therivel and Ross 2007). A variety of scholarship has demonstrated that cumulative effects are not consistently regulated or assessed in Canada (Ross 1998; Bonnell and Storey 2000; Bird 2016). To some degree, this requires a concern for longer term planning as well as policy implementation that directs regulators to consider comprehensive and cumulative effects in decision-making.

2.4.4 Regulatory Capacity. Finally, regulators need skilled human capital and budgetary support to do their job effectively. Thus policymakers have a responsibility to effectively provide the appropriate amount of support for effective regulation. This can occur at the national and provincial levels, but local authorities have some responsibility for building their capacity as well.

A clear story emerges in the previous pages. Canada often has effective governance in place but new stresses and gaps in the policymaking need to be addressed so that a more effective regulatory system can emerge. Such a system would presumably incorporate independent review of the regulatory system, include policy that is responsive to regulatory input, and explicitly create policy that mandates coherence mechanisms and encourages the consideration of comprehensive and cumulative effects.

3. NEXT PRACTICES FOR POLICYMAKERS AND REGULATORS

3.1 COLLABORATION AND SPECIAL CHALLENGES IN LINEAR PROJECTS, INDIGENOUS RIGHTS, NATIONAL POLICY CLARITY, AND PUBLIC TRUST AND UNDERSTANDING

As the OECD notes, planning requires regulatory coherence. This means that policy-making requires sufficient detail to provide guidance for regulators writ large. In the absence of such guidance, regulatory decisions can become deeply politicized. Canada's regulatory oversight of energy faces four exceptional obstacles. These will likely require special adjustments and attention to the relationship between policy-makers and regulators. These are concerns for:

- i Linear projects such as pipelines or transmission lines
- ii The role of Indigenous authorities in energy infrastructure development
- iii The need for clear and detailed policy goals with respect to contentious national level issues in energy such as climate change, and
- iv addressing public trust and understanding in energy development.

Two of these concerns, linear projects and Indigenous rights, are of particular concern to Canada. Canada's geographic size and the remote location of large scale hydro and fossil fuel projects mean that long run linear projects may occur more often in Canada, and are a cornerstone in the success of the energy system.

Second, Indigenous rights have a unique place in Canada because of recent court rulings affirming treaty obligations and higher levels of input and consideration. These rights are even more important given the hundreds of Indigenous authorities in Canada and the fact that so many energy resources and infrastructure are found on or under, or traverse native lands.

3.1.1 The Challenge of Linear Projects. Linear projects are a challenge in almost any context because they cover so many jurisdictions, and because it is rare that benefits can accrue to every community whose land they cross (Vajjhala and Fischbeck 2007; Groves, Munday, and Yakovleva 2013). In general, benefits only accrue to upstream energy producers, and downstream users, with fewer benefits available for intermediaries. Many of the challenges associated with linear projects are exemplified in Positive Energy's two case studies on the Northern Gateway Pipeline Project and the Western Alberta Transmission Line (Cleland et al. 2016a).²²

A variety of policy approaches can be considered, with careful coordination between policymakers and regulators to try to avoid the inherent tensions in the trade-off between national need and local interests, but this arena is among the most challenging in energy development, exacerbated also by concerns for large scale policy issues such as climate change in the case of pipelines. Fossil fuel pipelines can actually function as the "perfect storm" of siting difficulty in that they can intersect with all four of the most challenging components of regulatory development: Indigenous rights, linearity, challenges in public perception, and lack of clear national level policies.

22 Northern Gateway. Case Study: Kitimat and Haisla Nation, British Columbia; Western Alberta Transmission Line. Case Study: Eckville and Rimbey, Alberta.

The United States has adopted some policy components created by policymakers to address these issues by developing transmission corridors pre-emptively via the Department of Energy, providing the Federal Energy Regulatory Commission (FERC) with backstop siting authority for electricity transmission, extensive focus on state and federal coordination, and increasing transmission rate incentives (allowing developers to devote more resources to social acceptance). These approaches seem to have had some success, though they have not been implemented for gas or oil pipelines (Swanstrom and Jolivert 2009).

Partnership approaches and strong pre-emptive, focused, and comprehensive engagement with options and choices have also had some success, as is discussed in the MacKenzie Valley Pipeline case in the Indigenous section below, and the Trans-Allegheny Interstate Line (TrAIL) project, crossing three US states and approved in just over a one-year period in 2009 (Swanstrom and Jolivert 2009). These projects are successful in part because they do not engage communities sequentially, but rather encourage engagement in a comprehensive, broader, and highly engaged process.

More than anything, policymakers need to provide clear guidelines for national and provincial level regulators to implement linear projects, and that point the way to motivating developers to be more effective in community engagement. Simultaneously, greater definition is needed to determine when and under what circumstances communities can seriously engage in the planning process, and under what circumstances the broader public interest prevails. Lastly, this regulatory landscape and its guidelines can be more effectively communicated to communities, the public, and other associated stakeholders.

3.1.2. Indigenous Authorities in the Policy-Regulatory Nexus.

A particularly vexing complication for energy governance in Canada is the question of how to appropriately integrate Indigenous governments into the process. Positive Energy specifically addresses questions of the relationship between municipal and Indigenous authorities with provincial and federal policymakers and regulators in the interim report #1, *Who Decides? Balancing and Bridging Local, Indigenous and Broader Societal Authorities Interests in Canadian Energy Decision-Making* (Fast, 2017). It has become clear, however, that both policymakers and regulators will need to address the role of Indigenous rights and concerns in a way that goes beyond the traditional policymaker-regulator relationship.

The primary reason for a new and expansive approach for policymakers and regulators is that Indigenous rights are complex. They can have multiple roles, as municipal authorities, or larger regional level governments that address many governance issues, and sometimes aspire to function as regulators, or in parallel with regulators. These rights and roles are generally stronger than in the past, with unique legal protections and considerations, and problematically, highly variable depending on context (Krupa, Galbraith, and Burch 2015; Lucas and Thompson 2016; Gardner, Kirchhoff, and Tsuji 2015). Lucas and Thompson note that extensive gaps exist in the current regulatory and governance structures in Canada for oil pipelines (2016), particularly as regards Indigenous rights. This concern was most recently reinforced by the federal court ruling that overturned the Northern Gateway Pipeline approval (*Gitxaala Nation v. Canada* 2016). These considerations create additional constraints on the broad regulatory responsibilities and decisions.

The recent academic literature emphasizes the need for different forms of collaborative, participatory, and multi-level governance which incorporates enhanced dialogue and exchange that go far beyond traditional notions of the “duty to consult” (Alcantara and Spicer 2016). In short, policymakers will need to more explicitly consider Indigenous rights in the regulatory setup, and regulators will need to be prepared for different forms of regulatory governance, including possibilities of joint reviews, or other collaborative ventures. This can originate differently. Federal or provincial agencies can develop these processes, or Indigenous communities may establish their own agencies that operate in parallel or partnership. In these situations, the degree of political commitment to improving and reforming the process from policy-makers can be critical to the success of the process (Alcantara and Spicer 2016).

While challenging, and perhaps requiring greater resources, successful examples of these sorts of regulatory oversight exist. In northern Ontario, the Pic River Ojibway have worked with regulators and industry to develop hydro, biofuels, transmission line siting, and wind facilities in a variety of co-ownership processes. Alternately, the Haida Gwaii Nation in northern BC refused the development of an offshore wind farm in partnership with BC Hydro and a developer in large part because the “provincial and federal policy environment did not allow for the government to collaborate with the Haida” (Krupa, Galbraith, and Burch 2015, 92). Krupa et al. emphasize the importance of regulatory co-production of development, a fluid approach to the regulatory process (with concurrent laws on the books to allow for such approaches), and nested spheres of authority rather than top-down institutional arrangements.

The caveat is that these sorts of examples are a rare subset of successful resolutions – it remains unclear whether these sorts of regulatory approaches can create more successful processes in the majority of similar situations.

Similarly, the Aboriginal Pipeline Group represents a group of First Nations and Inuit who have a joint ownership role in the Mackenzie Valley Pipeline in the Northwest Territories. It is the first time Indigenous groups in Canada have had a major ownership role in a national pipeline and represents the outcome of a partnership and joint review process between government, regulators, industry, and Indigenous authorities (MacKenzie Valley Aboriginal Pipeline Group 2017).²³

Similarly, the *Paix des Braves* agreement between Québec and the Cree Nation in 2002 marked a new era and Indigenous role in hydropower after decades of disagreements (The Grand Council of the Crees (Eeyou Istchee) n.d.). These sorts of arrangements can become more challenging when one Indigenous nation functions as developer with potential impacts on other Indigenous authorities. At this point, the onus remains with regulators to effectively ensure that all Indigenous rights are addressed effectively in the “duty to consult” requirement (Gardner, Kirchoff, and Tsuji 2015).

As discussed earlier, a regulatory assessment agency could include a department focused both on providing regulatory support and best practices advice to Indigenous communities and regulators.

23 While the National Energy Board approved the pipeline project in 2011 after a decade of regulatory reviews, the project proponents dissolved the joint-venture in late 2017 (<http://www.cbc.ca/news/canada/north/mackenzie-valley-gas-project-no-more-1.4465997>). The primary reason is that it is uneconomic in the context of low prices and shale gas development in the US. See Snyder, Jesse. 2016, “Arrested Development: For the Town of Inuvik, the Mackenzie Valley Pipeline Was the Lifeline That Never Came.” *Financial Post*, December 12. <http://business.financialpost.com/news/energy/arrested-development-for-the-town-of-inuvik-the-mackenzie-valley-pipeline-was-the-lifeline-that-never-came>.

Alternately, some have supported the establishment of an Indigenous Major Projects Office as recommended in the NEB Modernization Expert Panel's report. The key purpose should be to provide relevant analysis and support – not to represent Indigenous communities.

3.1.3. Communication Again: The Need for Clear Policy.

The section following concerns aspects of public trust and understanding concerning energy regulation and development. This concern is vital given the context discussed earlier in the paper – that in an era of low public trust in public authorities, the onus is on both policymakers and regulators to provide clear information on role, responsibilities, process - in essence every aspect of a given development, but also on the policy and regulatory context surrounding energy development more broadly.

As noted before, the lack of well-defined policy on issues of national concern such as climate change, risk, the balance between national level public benefits versus burdens on local communities, is a significant problem for effective policymaking and regulation.

Canada, the United States, and many other advanced industrialized democracies have had challenges in developing long-term, comprehensive national energy policies. Even when they have, such policies (e.g., the four U.S. Energy Policy Acts or various bills in Canada) have notorious policy gaps or limits in scope. However, the lack of detail in executive level policymaking can undermine the regulatory process. For instance, the current Canadian government has argued that the economic revenue associated with oil sands exports is required to pay for climate policies (McSheffrey 2016; McCarthy and Cryderman 2017).

The challenge here is that they have not provided a significant roadmap or guidelines as to how it will happen, the timeline, what priorities should be occurring, or any other detail in the policy goal. The Pan-Canadian Framework on Clean Growth and Climate Change is a valuable step toward achieving a shared national vision on climate policy, but more can be accomplished.

This is not an unusual situation, as governments often have not had a chance to fully develop their energy policies, or wish to defer from doing so because the details may make their political situation more untenable. Unfortunately, this can result in moving the political debate over climate change policy to the regulatory venue, increasing the complexity and politicization of the regulatory review as has occurred in most of the recent pipeline reviews in Canada. Of course, it is impossible to completely depoliticize regulatory proceedings, but providing policy depth can reduce the degree to which regulatory processes are encumbered by additional political issues.

3.1.4. The Public Perspective: Understanding, Trust, and Interaction. A key challenge and complication in differentiating and understanding the role of policymakers in government versus regulators occurs in terms of the public understanding of these important roles. If the public misunderstands the role of regulators, they create expectations for regulatory input in the wrong places.

Problems in public comprehension can occur in many ways:

- i** The public might agitate politically if regulatory processes are unsatisfactory, non-comprehensive, or defective. This of course puts pressure on policymakers to interfere in the process.
- ii** Similarly, if the public perceives that decision-making ultimately occurs in the political and policy arena, even if legitimately conceived, they will understand the regulatory process to be ineffective/a rubber stamp operation, ultimately undermining the role and importance of regulation.
- iii** If members of the public believe or expect that a regulatory decision is occurring at the provincial level, but aspects of the process actually occur via national regulation, they can perceive the regulatory process to be flawed.
- iv** Finally, if there is inappropriate interference or decision-making by policymakers, the public will understand again that regulatory processes are vulnerable to political intrusion, and lose faith in the system.

The evidence in Canada shows that several of these concerns are at play. Positive Energy conducted public opinion surveys (with polling partner Nanos Research) at four of the case study sites under examination in their communities case study work in 2016 (Cleland et al. 2016a). This data showed two important elements in the public's perception and understanding of politicians and regulators in the aftermath of important regulatory decisions.

First, Tables 2 and 3 show that public trust in the aftermath of four regulatory processes was consistently very poor. Further, public perceptions of independence from industry and government were similarly mediocre. The survey data is not representative of Canadians as a whole but it reveals a disturbingly consistent picture which underscores the fact that the regulatory process is suspect for Canadians who have experienced it.

TABLE 2

Trust in Public Authorities' Energy Decisions in Four Cases*

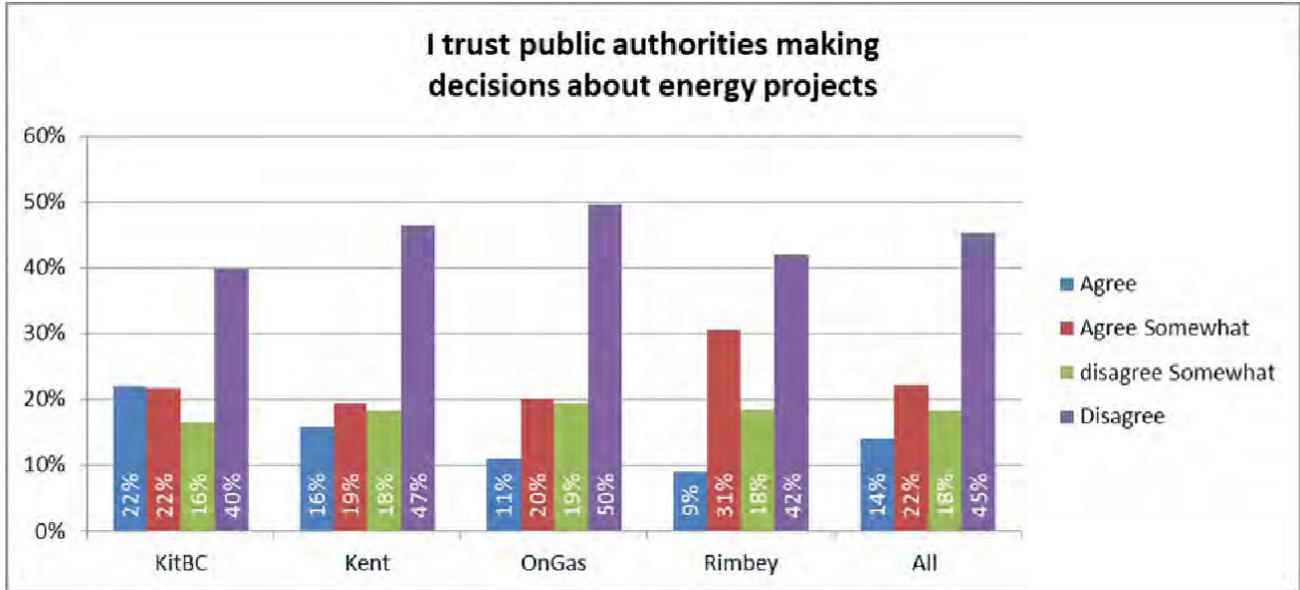
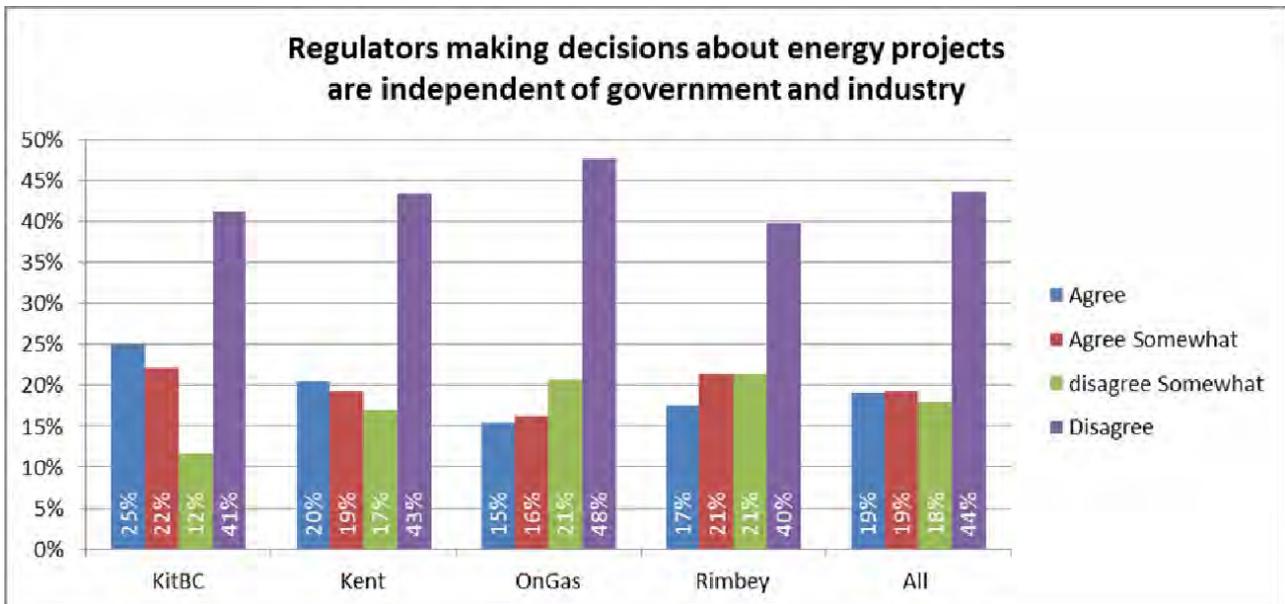


TABLE 3

Regulatory Independence in Energy Decisions in Four Cases*



*Survey data collected by Nanos Research in summer 2016 in four case study sites after regulatory decisions had been made (label notation in brackets): Kitimat, BC, Northern Gateway Pipeline (KitBC), n=355; Kent County, NB, shale gas regulatory proceedings (Kent), n=500; Oakville and King City, ON, Ontario Power Authority gas plants generation siting (ONGas), n=400 and n=200; and Olds Rimbey, AB, Western Alberta Transmission Line (Rimbey), n=340. "All" denotes combined results across all four case study areas, n=1795; it is not a representative sample of Canadians across the country.

Additional survey data revealed extensive confusion and lack of clarity about which regulator or agency should be in charge of regulatory decision-making. Residents in areas that have undergone regulatory decision-making distrust their regulators, don't believe they are independent, and lack any coherent idea of who is or should be in charge. These four cases demonstrate that both policymakers and regulators could do a great deal more to reinforce either the process itself or to communicate with the public about it.

3.2 COLLABORATIVE APPROACH FOR DIFFICULT CONTEXTS

What becomes clear from the broad collection of evidence surrounding the four difficult challenges is that there is a large role to play for the sixth 'C', collaborative processes of different forms. Most of these forms of regulatory consideration veer from the traditional regulator role as top-down "decider" arbitrating evidence and stakeholder input and instead focus on various forms of process-based collaborations or partnerships to find solutions, should they exist.

There is extensive evidence that shows that such processes can improve the chances that a process moves forward positively, with a higher degree of stakeholder and public approval (Nourallah 2016; Susskind, McKernan, and Thomas-Larmer 1999; Frieling, Lindenberg, and Stokman 2014; Hooghe and Marks 2003; Howlett 2009). Encouraging collaborative processes may help improve outcomes or possibly increase the potential for successful siting. That said, collaborative processes can still result in projects that do not move forward or are cancelled; "no" is still an option.

A variety of examples of these forms of governance and regulatory processes are discussed in Positive Energy's Public Authorities' interim report #3, *How to Decide? Engagement: Information and Capacity* (Simard, 2018). Although not comprehensive, these include:

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- Impact benefit agreements
 - Community co-production of policy
 - Cooperative partnerships
 - Multi-stakeholder dispute resolution
 - Collaborative regulatory reviews
 - Multi-level governance
 - Municipally owned energy
-

These forms of governance require more time, resources, and expertise. Simultaneously, while they may need more time, they may also require mandated timelines to move the process forward. To this extent they need funding from government and/or developers, and they require specialized proficiencies from the regulator (or hiring staff or specialists with skills in facilitation, mediation, etc.) to guide the process. While they may improve the prospects for more coherent outcomes, greater community satisfaction, and often a higher chance of successfully implementing a development, they are not guaranteed. Further, they require a greater upfront investment of time, money, and resources at the beginning of the process. As noted above, an in-depth examination of these types of processes is provided in Positive Energy's Public Authorities' interim report #3. The emphasis here is that we should expect that policymakers and regulators encourage the movement to such processes, and be prepared to support them.

FINAL THOUGHTS

A variety of scholars have emphasized the importance of high quality institutions for effective governance, particularly for sustained higher level growth rates (Rodrik 2005; Stern and Cubbin 2005). This applies to developing economies but also to advanced industrialized democracies such as Canada. Stern and Cubbin show that more effective and independent regulatory regimes are associated with stronger performance and efficiencies in the regulated electricity sector. They also emphasize the importance of well-designed industry structure, minimized corruption, and curtailed subsidization of industry costs.

This paper has emphasized aspects of Canada's institutional regulatory design and considered aspects of best practices that in some areas could be improved. In particular, concerns for regulatory independence, regulatory coherence and planning, and regulatory assessment could be considered at the national and provincial levels. Both policymakers and regulators have responsibilities and roles to play in ensuring this happens.

A second concern of this paper is the assertion that critical challenges must be addressed by policymakers and regulators. These four areas (linear projects, Indigenous rights, reconciled national policy, and public trust) likely require new forms of collaborative governance and regulation that must be addressed in the policy-regulatory nexus.

CONCLUSION

Canada has a remarkable diversity of energy assets, arguably one of the best sets of resources on a per capita basis of any country in the developed world, and likely globally. It forms the foundation of a \$100 billion dollar a year trade relationship with the United States and other nations (Energy Information Agency 2012). It is comprised of a significant nuclear fleet, unparalleled hydro resources, burgeoning renewable resources in wind, solar, and biofuels, and extensive resources in both conventional and unconventional oil and gas, as well as coal.

This rich set of resources requires a singular commitment to effective energy governance by policymakers and regulators. In many ways, Canada's set of regulatory and governance institutions are generally strong, successful, and effective. Nonetheless, there are clear opportunities to improve the way policymakers and regulators implement oversight of the energy industry. The context in Canada of extensive Indigenous participation in energy and distinct provincial responsibilities makes collaboration and coherence challenging. Further, energy governance is significantly challenging; energy is difficult – just ask anyone contemplating the considerations inherent in developing linear fossil fuel pipelines across communities and Indigenous jurisdictions.

Further, the policy and regulatory system significantly impacts Canada's ability to attract capital investment as it affects the timeline, complexity, uncertainty and cost of developing energy projects. A comparative mindset can help Canada consider its regulatory efficacy. Uncertainty in Canada's regulatory system only serves to reduce market confidence. Environmental, social, and economic goals have to be integrated into a broadly coherent national energy policy and set of institutions.

Improved energy governance in Canada will require a re-commitment to best practices in the policy-regulatory relationship, as follows:

- 1** Enhanced interaction and dialogue between policymakers and regulators in all relevant circumstances and jurisdictions while still maintaining appropriate regulatory independence and clarifying the term.
- 2** The integration of improved planning with market mechanisms.
- 3** Ongoing *ex ante* and *ex post* assessment of regulations, regulatory design, institutional design, and regulatory effectiveness, with an appropriate quasi-independent body to do so.
- 4** A commitment to cross-institution and cross-jurisdiction regulatory coherence.
- 5** Improved information and communication of regulatory oversight, responsibility, and process to the public.
- 6** Ensuring regulatory oversight is both comprehensive and cumulative, and provided with enough capacity, while still balancing local impacts with a commitment to economic efficiency and public good outcomes..
- 7** The development of more fluid, interactive, and collaborative processes that require more time, resources, and expertise to address particularly challenging areas of energy governance: linear projects, Indigenous jurisdictions, national policy clarity, reduced public trust and understanding.

Successful models and approaches for doing this exist in many cases, and though the challenge may be daunting, the costs of not addressing these issues will likely be greater than the commitment needed to improve Canada's oversight of its energy sector.

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ABOUT POSITIVE ENERGY

The University of Ottawa's Positive Energy project seeks to strengthen public confidence in Canadian energy policy, regulation and decision-making through evidence-based research and analysis, engagement and recommendations for action.

POSITIVE ENERGY

