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Unclogging the Pipes: Pipeline Reviews and Energy Policy

The federal government needs to improve the regulatory review process for energy pipelines. The government should focus on improving process efficiency and reducing scope creep in regulatory reviews.

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THE STUDY IN BRIEF

Canada's energy sector, and the Canadian economy, would benefit from a renewed focus on pipeline review policy and regulation. Recent cases, including the Mackenzie Valley pipeline, the Keystone XL, and the Northern Gateway pipeline, highlight current challenges and the need for an improved regulatory review process.

This *Commentary* argues for improvements in two key areas. First, the regulatory review process needs focus and harmonization. Ottawa's Major Projects Management Office (MPMO) is a good recent example of government attention to streamlining regulatory efforts. Improvements in regulatory efficiency should be introduced in ways that are respectful of due process, public participation, and environmental assessment. This will require avoiding duplication in regulatory processes at different departments, agencies, and levels of government to ensure that the streamlined processes meet the policy targets they are intended to address, while facilitating suitable resource development.

Second, governments urgently need to address scope creep in regulatory review analysis and decisionmaking. While issues such as energy security, greenhouse gas emissions, and energy efficiency are important to society and relevant to the energy sector and the national economy, these overarching social and environmental issues should be dealt with by governments in setting energy policy, not as part of the regulatory review process. This would provide clearer direction for the review process, which could then focus on project-specific issues.

This *Commentary* makes four broad recommendations. First, governments should continue to expand efforts to coordinate regulatory review of major projects and to eliminate duplication, consistent with the MPMO's approach and that of Alberta's integrated energy resource regulator. This effort should continue to focus on regulatory process efficiency, meaning the time and resources required to complete reviews. Second, governments should develop overarching processes and frameworks, such as Alberta's cumulative effects management system, that provide clear direction on regulatory decisions for major projects. Third, Canada needs a coherent energy policy that explicitly addresses energy development, imports, and exports and lifts overarching national concerns and interests from the review process for individual pipelines. Fourth, regulators should distinguish between issues of public interest, which should proceed to hearings, and private interests that are better left to negotiation or arbitration between project proponents and directly affected parties.

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Canada's energy industries are global in size and contribute significantly to the country's economy. Canada is the world's sixth-largest producer of oil and third-largest producer of natural gas (BP 2011).

In 2010, 69 percent of Canada's total crude oil production was exported, almost all of this destined for US markets. Close to 61 percent of Canada's natural gas production was exported, and virtually all of this also went to US markets.¹ Overall, energy products accounted for more than 22 percent of Canada's export revenues in 2010.²

In 2009, oil and gas extraction was responsible for \$34 billion in investment – or 25 percent of non-residential capital investment – \$19 billion in government revenues (EPIC 2011a,b), and close to 500,000 jobs.³ These economic impacts are not limited to the province or region in which extraction or production occurs. The oil sands will increase Canadian gross domestic product by nearly \$800 billion between 2000 and 2020 (expressed in 2004 dollars; Timilsina, LeBlanc, and Walden 2005). Nearly one-third of the increase in Canadian person years of employment attributable to the oil sands will occur outside Alberta (ibid).

Pipelines: Critical to Energy Sector Development

Transportation is critical for moving Canada's energy products to domestic and export markets. While existing pipeline infrastructure may be adequate for current production and markets, a necessary condition for the continued development of Canada's energy resources is new pipeline capacity.⁴ This is currently a politically contentious topic in Canada, with interest and concerns regarding pipeline access to the United States – TransCanada Corporation's Keystone XL and the proposed expansion of Kinder Morgan Energy Partners' Trans Mountain pipeline to the west coast – as well as new markets, notably Asia (Enbridge's Northern Gateway and Kinder Morgan's Trans Mountain pipeline).

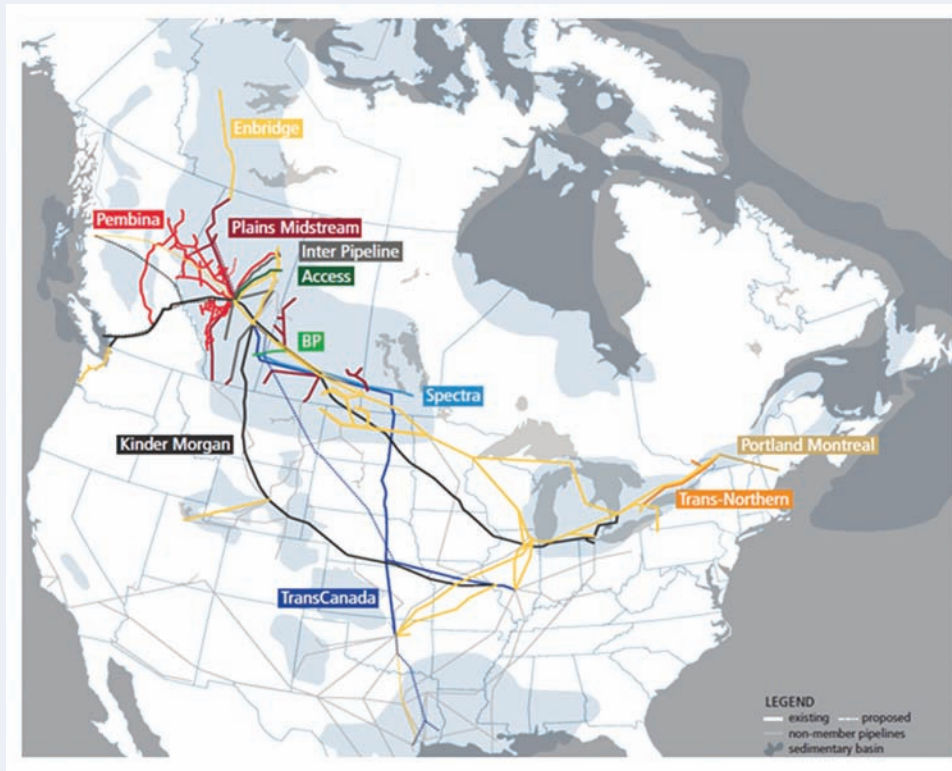
The issue is not unique to North America: close to 120,000 miles of pipelines are currently planned or under construction around the world (Tubb 2011). More than two-thirds of this total is in the

I would like to thank Finn Poschmann and especially Ben Dachis for their comments on earlier versions of this draft.

Reviewers provided numerous additional comments that greatly strengthened the draft. Their help notwithstanding, I take full responsibility for the contents of this paper.

- 1 Data are from the website of the National Energy Board. Note that the stated percentages refer to total exports; net export percentages (and actual volumes) are lower when imports of both natural gas and crude oil are accounted for.
- 2 Statistics Canada, "Exports of Goods on a Balance-of-Payments Basis," CANSIM database, table 228-0043.
- 3 Statistics Canada, "Employment by Industry (Natural Resources and Utilities)," CANSIM database, table 282-0008 and cat. 71F0004XCB.
- 4 The general recognition of the importance of pipeline reviews is likely one of the drivers of the growing interest in some form of "National Energy Strategy." One recent example is the discussions at the Provincial Energy Ministers' meeting in Kananaskis, Alberta, in 2011; see EPIC (2011b).

Figure 1: Oil Pipelines of Members of the Canadian Energy Pipeline Association



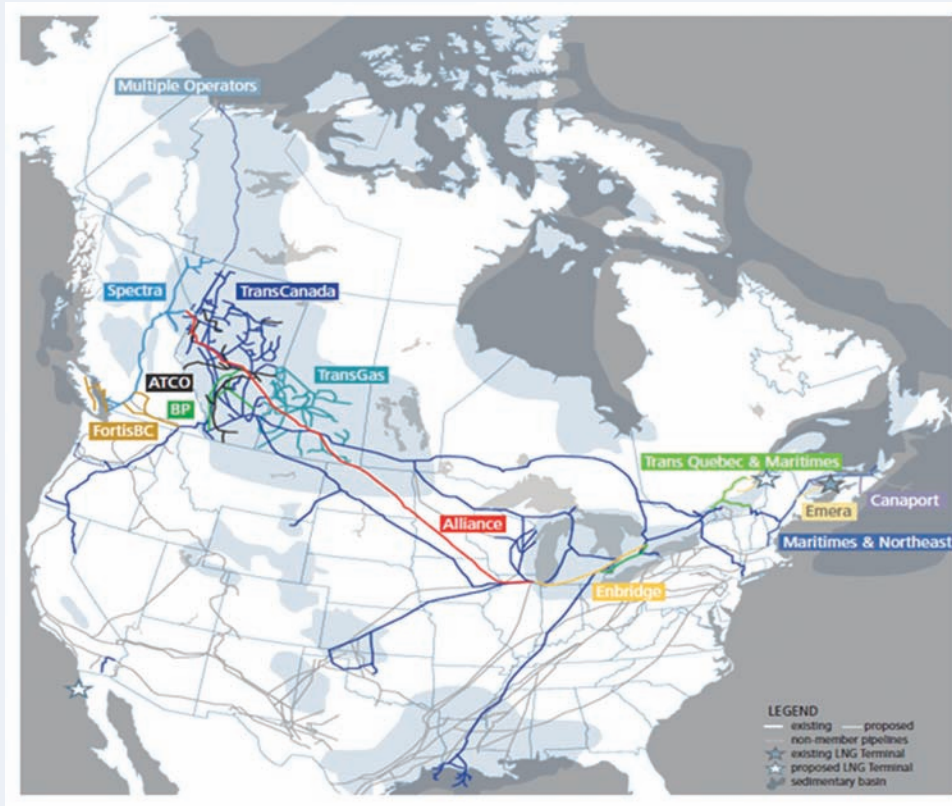
Source: Canadian Energy Pipeline Association.

planning and design phase, generally under some type of regulatory or policy review process. As energy demand grows worldwide, the demand for new transportation infrastructure will continue to grow.⁵ (See Figures 1 and 2 for maps of Canada's existing and proposed oil and natural gas pipeline infrastructure.) The expected returns of additional pipeline access could be substantial. One study has estimated that pipeline access to Canada's Pacific coast could result in \$8 per barrel in additional revenue for oil and gas producers (York 2011), amounting to an average of \$8 billion per year in additional revenue for the sector from 2017 through 2025.

Thinking of a pipeline as a conduit for market access, linking supply and demand, is straightforward and can, in theory, lead to a simple analysis of the benefits accruing to resource owners, developers, and customers. In the past, this view of creating economic value for resource owners and consumers by producing and transporting a commodity to market was often sufficient to justify pipeline development. Pipeline reviews were straightforward in cases where the economic costs associated with extraction and transportation were less than the expected returns. Factors not related to costs or to market benefits have always been important to pipeline approval decisions.

⁵ The International Energy Agency's most recent forecast suggests a 31 percent increase in liquid fuels demand, from "85.7 million barrels per day in 2008 to 112.2 million barrels per day in 2035," (IEA 2011).

Figure 2: Natural Gas Pipelines of Members of the Canadian Energy Pipeline Association



Source: Canadian Energy Pipeline Association.

Historically, though, these debates have tended to take place more at the policy level than at the individual pipeline regulatory review level.⁶

Today’s pipeline development debates are more complex, going beyond the benefits associated with producers and final consumers. The complexity stems from a range of concerns, some of them local, such as directly affected landowners, some regional (First Nations and territorial claims), and some continental, such as energy security in the United States, or transportation network impacts

on the prices paid to producers or faced by retail consumers. Finally, some of them are global, such as environmental impacts of increased energy development.

ASSESSING REGULATORY EFFICIENCY AND EFFECTIVENESS: REVIEW PROCESS AND SCOPE

The efficiency of regulation is a common concern of industry and government.⁷ Natural resources

6 An early example would be the parliamentary debate of 1956 concerning the TransCanada Pipeline. The debate and its impact, which extended beyond Parliament, dealt with the financing of the project as well as the perceived threat of US influence on the operation of the pipeline and on Canada’s resource sovereignty.

7 See CEA (2011); Kenny (2011); and McCarthy (2011) for related discussions.

minister Joe Oliver recently stated that he agreed with the view of executives in the energy and mining sector that “the environmental review process is too cumbersome and time consuming, adding costly delays which drive up the price for capital-intensive projects” (McCarthy 2011). While much effort is devoted to making regulation more efficient, this *Commentary* argues that discussions of regulatory or policy effectiveness are more fundamental to the notion of increasing public benefit.

To develop this understanding, I look at three specific questions.

- What are the key regulatory steps and regulatory bodies involved in the review process of federally regulated pipelines in Canada? This question speaks to regulatory efficiency.
- To what degree is the complexity resulting from the ever-increasing range of concerns and challenges in the regulatory review process – referred to as “scope creep” – a problem? This question speaks to regulatory effectiveness.
- What is the potential for expanded or better crafted energy policy to deal with scope creep and improve both the efficiency and the effectiveness of the review process?

There are four steps that governments should take that will enhance the pipeline regulatory review process.

- The federal government should expand its efforts to coordinate regulatory review of major projects and eliminate duplication – especially with provinces – consistent with the practice of the Major Projects Management Office and Alberta’s integrated energy resource regulator. This effort should continue to focus on the efficiency of the regulatory process;
- The federal government should develop overarching processes, such as Alberta’s

cumulative effects management systems, that provide clear direction to regulatory decisions for major projects;

- The federal government needs a policy approach that explicitly addresses overarching energy development questions, such as import and export policy, and removes those issues from the individual pipeline review process; and
- The federal government needs a new approach to direct negotiations between directly involved parties, implemented by the National Energy Board (NEB). Where possible, private claims should be settled prior to and outside of public hearings on matters of the broader public interest.

PIPELINE REGULATION AND THE PUBLIC INTEREST

In most market economies, pipelines – their construction, tolls and tariffs, operations, and decommissioning – are highly regulated.⁸ The public utility model of pipeline regulation, particularly the review process for new pipeline construction that has evolved over time, embodies two general characteristics.

First, the regulator’s and policymaker’s *raison d’être*, and thus a driver of their actions, is to serve the public interest. The National Energy Board (NEB), as an example, states that its purpose is “to regulate pipelines, energy development and trade in the Canadian public interest.”⁹

The public interest, according to an NEB document prepared to inform landowners and the general public about pipeline regulation,

is inclusive of all Canadians and refers to a balance of economic, environmental, and social interests that changes as society’s values and preferences evolve over time. The Board estimates the overall public good a project may create and its potential negative

8 For classic references, see Kahn ([1970–71] 1993) and Phillips (1993).

9 From the NEB website: <http://www.neb-one.gc.ca/clf-nsi/rthnb/whwrndrgvrnnc/whwrndrgvrnnc-eng.html>.

aspects, weighs its various impacts, and makes a decision (NEB 2010b).

While as a general construct the notion of public interest is intuitive, the question remains in practice how to apply it to pipeline reviews.

Second, approval decisions traditionally have been made by regulatory tribunals that, among other steps, hear evidence that allows them to determine if the proposed facility is in the public interest. This suggests the use of metrics, both quantitative and qualitative, to evaluate the public interest, or the public benefit, of a proposed project.¹⁰

The focus on public interest or benefit should not be interpreted as completely divorced from private interest or benefit, for at least two reasons. First, public benefit is likely related in some way to the sum of individual benefits. Second, in a market economy, regulators recognize that facility owners need to earn an adequate profit from their operation, if the facility is to be built and then managed in a sustainable manner.

The Pipeline Review Process

Under the *National Energy Board Act* (NEB Act), the NEB regulates energy pipelines that cross provincial-territorial and international borders. A pipeline project – either a new pipeline or an addition to an existing pipeline – that falls under the purview of the NEB must receive the Board’s approval prior to construction. The formal trigger for NEB involvement in pipeline reviews is the proponent’s application for a Certificate of

Public Convenience and Necessity, which grants permission to construct the pipeline.

To improve process efficiency, prior to that application, proponents submit a preliminary information package that outlines the scope of the project.¹¹ If other federal departments or agencies could be implicated in the review for regulatory or statutory reasons, the preliminary package allows the NEB to begin coordinating their involvement.

Indeed, as a result of the different regulatory and statutory duties and responsibilities associated with pipeline reviews, the NEB is almost never the only agency involved in the review process. Often involved, depending on the nature and location of the project, are the Canadian Environmental Assessment Agency, Fisheries and Oceans Canada, Transport Canada, Environment Canada, and the Canadian Transportation Agency, not to mention equivalent provincial agencies (see Table 1 for a summary of federal agencies with authority over aspects of pipeline review).¹² These organizations are involved in environmental assessments because, under the *Canadian Environmental Assessment Act* (CEA Act), each is obliged to conduct an environmental assessment prior to issuing permits or authorizations under their sole purview. In 2008, the federal government created the Major Projects Management Office (MPMO) to “provide overarching project management and accountability for major resource projects in the federal regulatory review process, and to facilitate improvements to the regulatory system for major resource projects.”¹³

10 Hahn and Sunstein (2002) discuss the use of cost/benefit analysis in regulatory analysis.

11 As an example, in the Keystone XL Pipeline Project case, TransCanada Pipelines submitted a preliminary information package on July 18, 2008, and a certificate application on February 27, 2009.

12 The review of the Keystone XL Pipeline Project involved Natural Resources Canada, the National Energy Board, Agriculture and Agri-Foods Canada, Fishery and Oceans Canada, the Canadian Transportation Agency, Transport Canada, Environment Canada, and Aboriginal Affairs and Northern Development Canada. See the project agreement at <http://www.mpmo-bggp.gc.ca/project-projet/keystone-eng.php>.

13 MPMO website at <http://www.mpmo-bggp.gc.ca/index-eng.php>.

Table 1: Federal Agencies Involved in Pipeline Approvals and Enabling Legislation

Agency/Department	Legislation
Fisheries and Oceans Canada	<i>Fisheries Act</i>
Transport Canada	<i>Navigable Waters Protection Act</i>
National Energy Board	<i>National Energy Board Act</i>
Canadian Environmental Assessment Agency	<i>Canadian Environmental Assessment Act</i>
Environment Canada	<i>Canadian Environmental Assessment Act</i>
	<i>Migratory Birds Convention Act</i>
Aboriginal Affairs and Northern Development Canada	<i>Department of Indian Affairs and Northern Development Act</i>
Agriculture and Agri-Foods Canada	<i>Department of Agriculture and Agri-Food Act</i>
Indian Oil and Gas Canada	<i>Indian Oil and Gas Act</i>

Note: This is a representative list and not meant to be exhaustive.
Source: CAPP/CEPA/CGA (2005).

A significant part, and often the most public aspect, of the analysis undertaken in the project review process is the environmental assessment (commonly referred to as an EA). The CEA Act provides the basis for the federal government's requirement of an environmental assessment. Current practice for major projects¹⁴ is for a joint review panel to be created under an agreement between the minister of the environment (pursuant to the CEA Act) and the chair of the NEB (pursuant to the NEB Act) to undertake an environmental assessment. The NEB or the Canadian Environmental Assessment Agency (CEAA) provides administrative and technical support to both the joint review panel and the environmental assessment. Other government

departments or agencies deemed Responsible Authorities participate in both the panel and the assessment based on their expertise and statutory duties. Smaller environmental assessments for pipelines – such as for the Canadian component of the Keystone XL project – are conducted by the NEB in “screenings,” which, despite the name, are full environmental assessments (Feldman 2011). The CEAA becomes involved in projects only when they trip certain triggers.¹⁵ If that happens, a full environmental assessment must take place even when a potential project's environmental consequences are likely to be minimal – indeed, assessments of such small projects make up 99 percent of all federal environmental assessments (Feldman 2011).

14 According to the Comprehensive Study List Regulations in the CEA Act, major pipeline projects are the proposed construction of (a) an oil and gas pipeline more than 75 kilometres in length on a new right of way or (b) an offshore oil and gas pipeline.

15 The four triggers, according to Elaine Feldman, president of the CEAA, in a submission to the House of Commons Standing Committee on Environment and Sustainable Development, are “when a federal authority is the project proponent; when a federal authority may provide financial assistance to a project; when federal land is required; and when a federal authority has a regulatory decision, such as whether to authorize the alteration of fish habitat under the Fisheries Act.”

The NEB filing manual (NEB 2011) provides directions to proponents about the information that is required. Commonly, proponents must submit a complete project description and analysis of the economic feasibility of their project.¹⁶ Pipelines that are longer than 40 kilometres automatically require a public hearing, but shorter pipelines also may lead to hearings.

Regulators do not have the final word on pipeline approval: before the NEB can issue the final Certificate of Public Convenience and Necessity, its decision must be approved by Governor in Council – that is, the federal cabinet – which might lead to *ex post* political interference, real or perceived, in regulatory decisionmaking. As energy policy becomes more political (witness the Keystone XL debates) and the ramifications more numerous (climate change, energy security), this concern could grow – indeed, it argues for more clarity in *ex ante* policy development, which could also indirectly improve the regulatory process.

REGULATORY EFFICIENCY

Given the importance of pipelines, it is natural to ask if the current evaluation and review process is efficient, in terms of the time and resources required to complete it. (The question of effectiveness – whether decisions are the right ones – is a separate issue, discussed below.)

While the regulatory and institutional contexts might not have changed much since the original Mackenzie Valley Pipeline proposal of the mid-1970s, industry participants and analysts argue that the depth and level of analysis required in regulatory filings and subsequent proceedings have increased

significantly over that time (see Table 2). While criticism of the regulatory process is prevalent, independent analysis of the efficiency of the pipeline review process is lacking, likely due, at least in part, to the heterogeneity of projects and applications and the difficulty of reaching general conclusions in this environment.

Institutions and Markets: What Has Changed?

The most fundamental change to Canada's oil and gas institutions in recent decades was the deregulation of prices and markets in the 1980s.¹⁷ As a result, the NEB no longer required an economic or market justification – with respect to the ability to serve Canadian demand – in applications for pipeline approval. Market decisions based on prices, whether in upstream, transportation, or downstream activities, have substituted for regulatory decisions on the economics of specific projects. Issues associated with Canadian energy security and economic development and pipeline development continue to be front and centre in pipeline debates,¹⁸ but pipeline proponents are not required to present analyses of resource availability for the Canadian market as a whole or of the project's impact on resource availability. This simplifies project proposals and their evaluation.

Government Interest in Regulatory Efficiency

Governments are concerned with regulatory efficiency in the energy industries, and have devoted considerable effort in recent years to improving the pace and efficiency of energy and environmental regulation.

16 The NEB filing flowchart can be found at <http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/flngmnl/flwchrt-eng.pdf>.

17 The 1985 Western Accord (for oil) and Halloween Agreement (for natural gas) between the federal government and Alberta, British Columbia, and Saskatchewan deregulated pricing in commodity markets and de facto led to more open access on pipelines.

18 As an example, some of the opposition to Keystone XL focused on such issues as domestic energy needs, the benefits of upgrading of bitumen, and jobs in Canada; see Laxer (2008) and Lemphers (2010).

Table 2: Recent Pipeline Reviews by the National Energy Board

Pipeline Project	Date Preliminary Information Sent to NEB	Date of NEB Decision/Certificate Issue
Keystone XL	July 18, 2008	March 11, 2010
Northern Gateway	November 1, 2005	Ongoing
Keystone ^a	July 10, 2006	September 21, 2007
Mackenzie Valley	June 18, 2003	December 16, 2010
Alliance Pipeline	December 31, 1996	December 3, 1998
Mackenzie Valley, original application	March 1974	June 1977

^a Because this case mostly involved the conversion of a part of the gas mainline to an oil pipeline, it was relatively straightforward.
Source: National Energy Board Regulatory Document Index.

At the federal level, the Major Projects Management Office is the most significant initiative affecting regulatory efficiency in pipeline reviews. The Northern Gateway Project Agreement, organized by the MPMO, states that “the Government of Canada created the MPMO for the purpose of overseeing and tracking the federal review and Aboriginal engagement and consultation for major resource projects” (MPMO 2009). While the MPMO is not a panacea, as its mandate is to oversee and track, rather than to enforce timelines, it is viewed as effective in increasing efficiency.¹⁹ Final decisionmaking for a comprehensive study remains a two-step process, however, whereby the decision of the minister of the environment is then sent to the responsible authority for another decision (Feldman 2011).

The creation of joint review panels (including provincial memoranda of understanding) has also

improved efficiency without compromising the integrity of the environmental assessment. As well, as the 2010 federal budget stated, “[r]esponsibility for conducting environmental assessments for energy projects will be delegated from the [CEAA] to the [NEB] and the Canadian Nuclear Safety Commission for projects falling under their respective areas of expertise,” a change that could simplify and clarify the regulatory process and reduce costs.²⁰

These changes are consistent with the federal government’s stated goal of streamlining regulation (Canada 2007), reiterated by natural resources minister Joe Oliver in late November 2011 (see McCarthy 2011). The NEB has also introduced procedural changes, such as negotiated settlements, which have reduced hearing times and increased efficiency.

Reviews are still lengthy, however, and can be

19 For example, as the Canadian Energy Pipeline Association (CEPA) reported, “CEPA-member companies believe that MPMO has made progress in reducing overall project timelines and in understanding and coordinating federal Crown consultation obligations” (Kenny 2011). McCarthy (2011) reports that the MPMO “has cut the average review to 22 months from four years.”

20 As argued, for example, by CEPA; see <http://www.newswire.ca/en/story/662983/cepa-welcomes-federal-government-changes-to-pipeline-approvals-process>.

subject to delays. For example, in the Northern Gateway review, the initial request for a panel review was submitted to the NEB on February 9, 2006; by October 2008, the review had reached only initial engagement and Aboriginal consultation on the draft joint review panel agreement. Oral hearings at the joint review panel did not commence until January 2012.²¹ The MPMO also states that it may pause the timeline of the joint review panel in case “litigation or other court action prevents the completion or continuation of the federal review” (MPMO 2009). In all, the MPMO expects 44 months to elapse between the recommencing of the joint review panel process and final approvals from all federal agencies.

In a more recent example, Enbridge filed an application with the NEB in August 2011 to reverse the direction of flow on Line 9, an oil pipeline between Sarnia and southwestern Ontario. The project requires no new pipeline construction. The NEB held a public comment period during which it received statements from the public at large – many related to concerns that the reversal would increase the amount of oil sands output consumed in Ontario – and from directly affected stakeholders, such as landowners who expressed concern over the existing pipeline’s right-of-way.²² In December 2011, the NEB announced it would hold hearings regarding the project in fall 2012.

Negotiated Settlements

One way around this lengthy review process is to undertake a negotiated settlement – an agreement between customers and a regulated facility owner that, if approved by the regulator, dispenses with a hearing. While such settlements mostly have been applied to tolls, they have been used occasionally in facility approvals.²³ When the NEB began to regulate pipeline tolls in the 1970s, the tolls on major Canadian oil and natural gas pipelines were determined through a litigated process involving hearings in which applicants and interested parties participated. There was a general feeling that hearings represented a zero-sum game to no mutual benefit. Eventually, in 1985, the first negotiated settlement occurred, and over the next decade the process was considerably reformed (NEB 1994).

The NEB judges the reasonableness of a settlement by the reasonableness of the process, rather than the reasonableness of the outcome.²⁴ The Board clarifies and establishes the property rights of the parties, which facilitates bargaining and mutually beneficial outcomes. The current guidelines delineate between private and public interests;²⁵ rather than making all potential matters immediately subject to a hearing, parties are allowed to negotiate privately and to leave matters of broader public interest for the hearing phase. While the focus of negotiated settlements is on efficiency,

21 See <http://www2.mpmo-bggp.gc.ca/MPTracker/project-projet-03.aspx?pid=82&psid=0>.

22 For information on submissions for this project, see <https://www.neb-one.gc.ca/11-eng/livelink.exe?func=11&objId=706437&objAction=browse&sort=-name>.

23 This discussion draws heavily on Doucet and Littlechild (2009).

24 The then-chairman of the NEB, Roland Priddle, said, “The Board simplified the Guidelines essentially to say: if you the regulated entity advise your whole community that you are going for a negotiated settlement, if you subsequently allow into the negotiations any party that has a demonstrable interest, and if there is broad agreement among parties, then we will consider that the public interest has been upheld and satisfied” (Doucet and Littlechild 2009, page 4638).

25 The NEB (2002) requires that all parties with a direct interest “have a fair opportunity to participate and have their interests recognized and appropriately weighed in a negotiated settlement.” However, “a settlement must not fetter the NEB’s ability and discretion to take into account any public interest considerations which may extend beyond the immediate concerns of the negotiating parties.”

a significant benefit has been to improve the effectiveness of the process. By 1997, all major oil and gas pipelines then subject to active regulation had entered negotiated settlements for tolls and tariffs, and while 85 percent of litigated cases went to hearings, only 16 percent of settlements did so.

Provincial Regulatory Process Reforms

Important initiatives have also been introduced at the provincial level. Alberta has focused on the efficiency of regulation of upstream energy development in its regulatory enhancement initiative, the objective of which is to enhance “energy sector regulation based on the principles of effectiveness, efficiency, adaptability, predictability, fairness and transparency.”²⁶ One of the initiative’s recommendations is to “establish a single regulatory body with unified responsibility for policy assurance (regulatory delivery).” In Ontario, a streamlined environmental assessment for public transit projects “provides a more efficient, timely, economic and environmentally-responsible approach” for well-defined projects that are routine or have relatively predictable environmental impacts (Ontario 2010). In British Columbia, legislation relevant to pipelines can be found in the *Environmental Assessment Act*, the *Oil and Gas Commission Act*, the *Fish Protection Act*, the *Forest Practices Code of British Columbia Act*, the *Land Act*, and the *Water Act*. The ministry of environment and the BC Oil and Gas Commission are the principal agencies involved in regulation (see CAPP/CEPA/CGA 2005 for details on other provinces).

The CEAA often conducts joint reviews with provincial assessment agencies. For example, the federal government formed a joint review panel with Newfoundland and Labrador to investigate the proposed Lower Churchill Falls hydroelectric project. The CEA Act also allows for the delegation of an environmental assessment

to another jurisdiction, though it does not allow the environmental assessment process of one jurisdiction to replace the process of another. Substituting processes across jurisdictions would allow governments to make their own regulatory decisions while using elements of existing and ongoing environmental assessments in the final decision (Feldman 2011).

Participant Interest in Regulatory Efficiency

Participants in the regulatory process have also contributed to increased efficiency in some instances. Collaborative approaches to work around the adversarial or litigious approach associated with hearings and tribunals, such as negotiated settlements, have been effective in increasing efficiency. Settlements are driven principally by participants as opposed to regulators. In some project review hearings, stakeholders coalesce into a single group to simplify hearing participation. This is common for environmental non-governmental organizations and industry associations.

REGULATORY EFFECTIVENESS: SCOPE CREEP IN REGULATION AND POLICY

The challenges of regulatory reviews are not limited to the volume of information and time required to analyze projects. In other words, it is not simply a matter of improving a process to deal with greater volumes of information. A fundamental and more challenging issue is the basis on which a decision is made and, hence, the nature of the information needed to form a well-reasoned decision.

Scope Creep in Regulation

Regulators generally refer to a set of economic, social, and environmental factors – such as demand

26 See the Alberta Energy website at <http://www.energy.alberta.ca/Initiatives/RegulatoryEnhancement.asp>.

for the infrastructure, investment, and economic activity, local job creation, and environmental impacts and remediation plans – as being relevant to the review decision. However, they shy away from a prescriptive or *a priori* weighting of factors, and do not precisely define the public benefit or public good of a project.

Looking at a specific case, the news release of the NEB’s approval of Keystone XL includes the following statement: “The NEB found the proposed pipeline to be in the *public interest* and accepted that the project would connect a large, long term and strategic market for Western Canadian crude oil with the U.S. Gulf Coast in a manner that would bring *economic and other benefits to Canadians*” (NEB 2010a; emphasis added). While the statement is straightforward, the nature of the opposition to the approval within Canada suggests that a fundamental difficulty facing regulators and policymakers today is the ambiguity or the breadth of interpretation of public benefit.

This has taken a number of forms. First, some opponents have suggested that the environmental assessment of the proposed pipeline should address the impacts of the production of the crude the pipeline will ship.²⁷ This is similar in spirit to a well-to-wheels approach to measuring greenhouse gas emissions or environmental impacts. Second, and similarly, at least in spirit, some Canadian unions have objected to Keystone XL (and other bitumen export pipelines) on the grounds that it is not in the public interest to export raw bitumen because of the potential job losses, as compared to exports of equal volumes of more refined products.²⁸ Third, energy security (or self-sufficiency) concerns have

been raised in connection with increased Canadian bitumen or crude oil exports (Laxer 2008).

These three examples raise the question of the appropriate scope of environmental and economic assessment of pipelines. Project opponents must have an opportunity to express their views within the regulatory process, but it is neither efficient nor effective to allow opponents to define the scope of the analysis, particularly when the issues are outside the scope of a specific project or the jurisdiction of the approving panel or board. There needs to be a priori determination of what issues will have standing in the regulatory process. More general issues of importance to society but not specifically linked to the project in question should be removed from review analysis.

Defining the Optimal Regulatory Scope

The challenge for regulators and policymakers is how and where to deal effectively with this broadening of the societal view of public benefit as it applies to pipeline reviews, as opposed to the focus on efficiency described earlier. A broader range of relevant issues necessarily implies a broader definition of the benefits and costs associated with a pipeline, as many stakeholders argue. So, how should one determine what is relevant to the evaluation required by the pipeline review?²⁹

It might be helpful to think of this set of issues as externalities that various stakeholders would like to internalize in the regulatory review process, or in policy. The analogy of externalities likely will appeal to economists who believe that, in some market situations, costs and benefits are not accounted for in market outcomes. In the presence

27 For example, see https://www.neb-one.gc.ca/11-eng/livelink.exe/fetch/2000/90464/90552/418396/550305/556601/559236/572351/C-4-3_-_Sierra_Club_Canada_Final_Argument_-_A1L6C3.pdf?nodeid=572352&vnum=0.

28 For example, the Communications, Energy and Paperworkers Union of Canada has filed suit in Federal Court of Appeal contesting the NEB’s approval of Keystone XL.

29 Not all issues now have a broader scope than in the past. For instance, old NEB regulations included references to Canadian energy self-sufficiency as one aspect of public benefit.

of externalities, some modification of the market outcome, through regulation, might improve the social and environmental outcome by internalizing the costs and benefits to decisionmakers' decision process. Many stakeholders, particularly opponents, argue that specific impacts – on national energy security, climate change, employment, First Nations' sovereignty, and so on – are externalities, and should be included in the analysis of the public benefit of a pipeline and thus in the review decision.

Such scope creep – the inclusion of a broader set of issues in the regulatory review process – can appeal to pipeline proponents as well. For instance, some proponents of the Keystone XL Pipeline suggest that oil sands crude is “ethical” and that this should be a factor in approving the project.

Similarly, the NEB's decision on the Canadian leg of the Keystone XL pipeline stated that it would “connect a large, long term and strategic market.” A review process with a focused mandate on the specifics of the project should not involve broader issues of connecting to strategic markets.

The question, then, is what effects or consequences should be dealt with in review process, and what should be dealt with first in policy, and then used as context or framing conditions for the decisions to be taken in regulation? I argue that scope creep in regulation is not beneficial for the process (efficiency) or for the decision (effectiveness). It is simply not efficient or effective to attempt to solve broad, far-reaching societal challenges, such as First Nations land claims or greenhouse gas emissions policy, through individual project reviews. Including such considerations in the regulatory

process is ultimately unproductive and risks derailing the process. Issues regarding the source or characteristics of an energy commodity are indeed suitable subjects for public debate, but that debate should occur not at the pipeline review stage but at the energy policy level.

Commercial Competition in the Regulatory Process

Another set of issues relates to the involvement of competitors in regulatory proceedings. For example, Kinder Morgan, owner of the Trans Mountain Pipeline, argued that Enbridge's application for the Northern Gateway Pipeline, which would be a competitor, was deficient because Enbridge had not secured binding shipping contracts.³⁰ For its part, Enbridge contested that TransCanada's Keystone XL, which would compete with Enbridge's delivery of oil to the United States, was not in the public interest, arguing that western oil supply growth would be less than TransCanada had anticipated.³¹

A third interesting case is the initial, subsequently withdrawn, opposition expressed by TransCanada to the construction of the Alliance Pipeline in the late 1990s.³² TransCanada was concerned about the impact that a merchant pipeline competing in an overlapping geographic market would have on its market in central Canada. TransCanada's current commercial difficulties on its Mainline between Western Canada and Ontario suggest that its concerns were not spurious (Vanderklippe 2011).

To what extent and under what conditions should competitors be allowed to contest or block a project? What type of externalities might be

30 See the NEB web site at https://www.neb-one.gc.ca/ll-eng/livlink.exe/fetch/2000/90464/90552/384192/620327/625022/632839/Kinder_Morgan_Canada_Inc_-_Joint_Review_-_Enbridge_Northern_Gateway_Project_-_Comment_A1U4A4.pdf?nodeid=632840&vnum=0.

31 See the NEB web site at https://www.neb-one.gc.ca/ll-eng/livlink.exe/fetch/2000/90464/90552/418396/550305/556601/559189/565142/C-7-4b_-_Written_Evidence_of_Enbridge_Pipelines_Inc_-_A1K7K4?nodeid=565231&vnum=0.

32 See https://www.neb-one.gc.ca/ll-eng/livlink.exe/fetch/2000/90464/90550/90699/90763/90768/1998-11-01_Reasons_for_Decision_GH-3-97.pdf?nodeid=91024&vnum=0.

legitimate for a competitor to bring forward? How does a regulator distinguish between a competitor's commercial interests, some of which might be interpreted as part of the regulatory compact agreed to with the original project, and the public benefit associated with a project's impacts on the broader market? These questions recall the historical development of public utility regulation and the inherent tension between a regulated facility and competitive markets.

As I have argued, the regulatory analysis generally should focus on issues specific to the pipeline in question, and leave broader questions of competition policy and regulatory choices to policymakers. However, there will be cases where a regulator, in calculating the total benefit of a new project, will have to consider its potential negative commercial effects on an existing facility.

To summarize, regulatory review should focus on relatively narrow project definitions consistent with the impacts of the project, including its relevant costs and benefits, and the scope of activity of the proponent. Other issues, broader and more general in nature, should be dealt with in statute or in policy, not in regulatory reviews.

GOVERNMENT INTEREST IN REGULATORY EFFECTIVENESS

How have governments addressed the issue of effectiveness in regulation, and how have the responses addressed scope creep?

One general approach has been to address the effectiveness of policy decisionmaking by mandating the use of tools such as cost/benefit analysis.³³ Hahn and Sunstein (2002) note that, while the use of cost/benefit analysis in the

development of regulations is uneven, use of this type of analysis could improve priority setting. While the latter point is a policy issue, increased and improved use of tools such as cost/benefit analysis in government priority setting could also be an effective way to limit scope creep in regulatory proceedings.

Alberta's Cumulative Effects Approach

Alberta's new "cumulative effects" approach to regulating large projects provides another example of high-level policy direction that should both simplify and improve regulatory decisionmaking at the project level (Alberta 2011). Alberta is moving from a project-focused review process to one that accounts for the cumulative effects of all activities within a given region.³⁴ This new approach is anchored in the province's *Land-use Framework*, a framework to develop regional plans for each of the seven defined land-use regions corresponding to the province's major river basins (Alberta 2008). Alberta's approach is to obtain better review decisions, for major projects, by recognizing that the effects of a project are not isolated but depend on the cumulative effects within a region.

The cumulative effects management system (CEMS) and the seven regional plans are still in development. For instance, in the industrial heartland northeast of Edmonton, an area that has seen significant industrial development in recent years and where more development is planned, new regional limits on air and water emissions and on land use will be integrated into project evaluation and the granting of permits (Alberta 2007). While the CEMS concept has not yet been integrated fully into regulatory reviews, explicit regional plans

33 A classic example is the 1982 cost/benefit edict (Executive Order No. 12,291) of the Reagan administration in the United States. What is interesting about this case is that the Executive Order imposed obligations on agencies to include a cost/benefit analysis of new regulations. It did not propose the use of cost/benefit analysis in regulatory proceedings.

34 Alberta Energy defines cumulative effects as "the combined effects of past, present and foreseeable human activities, over time, on the environment, economy and society in a particular place"; see <http://environment.alberta.ca/0890.html> and <http://environment.alberta.ca/0891.html>.

and cumulative effects recognition, if implemented properly, will narrow the focus or scope of the analysis of each major project by clearly situating the impact assessment within a well-defined framework, thus improving the overall effectiveness of both policy and regulation.

Federal Environmental Assessment Scope

At the federal level, although the CEA Act and the reviews stemming from it are project focused, the Act does require analysis to consider cumulative impacts. The challenge this presents is that cumulative impact analysis needs to be considered within broader environmental thresholds or carrying capacity. However, the CEA Act as written does not provide for regional environmental assessments and is instead driven by a project-specific trigger (Feldman 2011). A CEA Act-driven environmental impact assessment would be more efficient if it were undertaken in the context of a regional or broader environmental framework.

The project-specific CEA Act trigger has the additional effect of including a number of small projects that trigger an environmental assessment because a federal department or authority needs to make a regulatory decision, funds a project, is a project proponent or when the project is on federal lands. This can lead to otherwise environmentally harmless projects being subject to an environmental assessment because, to give an example, a federal agency provides some funding to a project, such as a factory expansion, or a small-harbor expansion. These environmental assessments are administered by one of up to 40 federal agencies and do not fall under the purview of the streamlining intentions of the MPMO to reduce the burden of environmental assessments. These environmental assessments of small projects make up 99 percent of all federal environmental assessments (Feldman 2011).

Alberta's Bill 50

Another relevant and controversial example of rethinking the scope of decisionmaking between policy and regulation can be found in Alberta's Bill 50, since enacted as the *Electric Statutes Amendment Act*. The Act permits the provincial government to declare an electricity transmission project as critical, a designation that limits regulatory analysis and review of critical projects to route selection and local impacts. This change gives the provincial government sole power to assess the need for the identified transmission infrastructure, including impacts on generation project development and prices.

The Act has created significant opposition in Alberta, in light of the potential for significant cost impacts of new transmission investment as well as continued public interest in land-use issues associated with transmission development. Indeed, regulatory review of two of the four projects that the previous government had deemed critical has been halted.³⁵ This case illustrates that removing issues from regulatory analysis may be counterproductive if the issues are not given a public forum in which citizens feel they can be heard.

RECOMMENDATIONS AND CONCLUSIONS: MEETING PUBLIC BENEFIT

Given the importance of the energy sector to the Canadian economy and the potential for growth in the sector, governments need to focus on the infrastructure and institutions that can allow this potential to be realized in ways that benefit Canada. As part of that focus, governments must invest in improving the regulatory process associated with pipelines and the energy policy that directs and circumscribes this process.

35 For details, see <http://alberta.ca/acn/201202/319377884F9C9-A5C1-A1C2-A9B3DA18E6E5C55A.html>.

Improving Regulatory Efficiency

A great deal of interest has been demonstrated in improving the regulatory environment and the efficiency of the pipeline review process; efforts such as the MPMO have been successful and should continue and be enhanced. Yet there remains scope for improvement.

As experience of the Northern Gateway and contentious projects such as the original Mackenzie Valley Pipeline shows, the review process is still a lengthy one. The creation of the MPMO was a good first step in rationalizing the involvement of government departments and agencies such as the National Energy Board and the Canadian Environmental Assessment Agency in the review process. Now, the federal government should work to clarify and remove any remaining duplication in the roles and responsibilities of joint review panels, the MPMO, the NEB, and the CEAA so as to move Canada closer to the principle of having a single review for a single project. To improve the timeliness of the review process, the government should also prescribe the maximum time that the NEB can take to make a decision at each step of the pipeline review process.

Similarly, the CEA Act, which is currently under a statutory review, should enable greater flexibility for a federal jurisdiction to use elements of a provincial environmental assessment to meet the standards of an independent federal assessment. The provinces and the federal government could facilitate this by creating consistent standards of environmental assessment (see CAPP 2011). Further, environmental assessments should be restricted to decisions of environmental impacts and should not address issues of broader energy policy. As a recent example, the federal-provincial Joint Review Panel (2011) for the Lower Churchill

Falls hydroelectric project questioned the project on economic grounds. However, as Nalcor, the provincial energy utility, is building the project to fulfill the Newfoundland and Labrador government's energy plan, the economic case for the project should be outside the scope of environmental assessment. The provincial energy policy may be flawed, as Feehan (2012) argues in the case of the Lower Churchill Falls project, but problems with energy policy should be not be dealt with at the project stage, which is the outcome of the policy.

Improving Regulatory Effectiveness

While important and necessary, process is only part of the picture. As elsewhere, one of the significant challenges for Canada, beyond regulatory efficiency, is the higher-level problem of dealing with conflicts of views on the benefits and costs of development and the resulting scope creep in the review process. In light of the Keystone XL debate, a comment from Ladislav and Pumphrey (2011, page 5) is relevant: “[f]ighting out these big questions about where the United States is headed vis-à-vis our national energy policy and climate change on a project-by-project basis is a terrible and uncoordinated way to proceed, but given the example of Keystone XL, it appears to be the path we’re on.” As of January 23, 2012, the Northern Gateway Joint Review Panel web site listed 217 intervenors and 4,505 individuals who have requested to make an oral statement to the panel.³⁶ While one can only speculate on the nature of the interventions and statements, it is quite possible that many will deal with those big questions.

Governments need to face the trickier challenge of clarifying social and environmental objectives, such as energy security and sustainability, outside the regulatory process so that regulation and

36 See the NEB web site at <https://www.neb-one.gc.ca/ll-eng/livlink.exe/fetch/2000/90464/90552/384192/620327/customview.html?func=ll&objId=620327&objAction=browse&sort=-name&redirect=3&redirect=4>.

reviews can focus on narrower, project-relevant issues. As Alberta's Bill 50 demonstrates, however, citizens and stakeholders will continue to demand to make their voices heard in terms of setting or defining societal objectives. Opposition to the federal government's regulatory streamlining efforts by those who interpret these actions as a way of sidestepping environmental assessment is and will continue to be strong. Thus, governments need to find effective ways to determine the broad agenda, with public input as appropriate, within which regulatory processes can work and continue to be publicly credible.

More specifically, there needs to be greater certainty about the broader government policy that abuts regulatory matters for major projects. For instance, with respect to the broad environmental issue of greenhouse gas emissions, a credible commitment and implementation strategy for reducing domestic emissions would make the induced emissions effects of a specific project irrelevant to the regulatory process. Were a cap-and-trade system, for example, in place, a firm that built a greenhouse-gas-emitting oil sands project enabled by a pipeline would be required to purchase emission credits from an existing holder of such credits. The net greenhouse gas balance would remain neutral, and the regulatory decision on building a pipeline would have no net effect on Canadian emissions. Meanwhile, in the absence of a broad government policy dealing with greenhouse gas emissions, advocates for their reduction likely will oppose any project that could lead to incremental emissions.

The federal government also should reduce its reliance on project-specific environmental assessments and focus on cumulative effects. This would require legislative change of the CEA Act, which is currently under review in the House of Commons. Smaller projects currently subject to a federal assessment should no longer automatically be subject to one; instead, the impact of a particular

project should be seen alongside that of the many projects that have a cumulative effect on the environment. The government then could set energy and environmental policy that applies to all project proponents, and the burden would not fall on those projects that happen to trigger an environmental assessment.

As well, along the lines of the recommendation regarding the regulatory approach to project-specific issues, the minister of natural resources or the NEB should remove decisions and negotiations that are specific to a single or small number of parties from public hearings.

This would require that regulators make a prior decision as to what matters are in the public interest and should be addressed in hearings. Private interests should be dealt with instead through negotiated agreements between pipeline proponents and interested parties. Rather than proceeding to a hearing, the NEB should set the parameters of a time-limited period of negotiation between the proponents and directly affected parties. The parameters of this negotiation period could be based on the negotiated settlements that have largely supplanted hearings for contested toll rates.

If the parties fail to reach an agreement, the NEB should make clear which remaining matters are within the scope of a potential hearing. As in the case of separating matters of broader public policy from specific regulatory decisions, the NEB should set hearings only for the remaining public interests. When remaining matters represent unresolved private interests, the NEB should make a decision as to whether alternative dispute mechanisms, as opposed to public hearings, would be more effective. However, a more timely decisionmaking process with specified deadlines would largely address this issue of intransigent directly affected parties significantly delaying project approvals.

In conclusion, efficient and effective regulatory review processes, incorporating sound environmental

assessment, are critically important for the large investments required to continue to develop Canada's energy resources. Regulatory review should become more efficient and effective in the presence of clear objectives in energy and

environmental policy. A clearer Canadian energy policy could go a long way toward clarifying some of the objectives associated with pipeline construction and thus remove some questions from the review process.

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