



INSTITUT C.D. HOWE INSTITUTE

COMMENTARY

NO. 534

# A Crisis of Our Own Making: Prospects for Major Natural Resource Projects in Canada

*With investment in Canada's resources sector already depressed, the federal government's proposed Bill C-69 would further discourage investment in the sector by congesting the assessment process with wider public policy concerns and exacerbating the political uncertainty facing proponents with a highly subjective standard for approval.*

Grant Bishop and Grant Sprague

# THE C.D. HOWE INSTITUTE'S COMMITMENT TO QUALITY, INDEPENDENCE AND NONPARTISANSHIP

## ABOUT THE AUTHORS

### GRANT BISHOP

is Associate Director, Research, at the C.D. Howe Institute.

### GRANT SPRAGUE

is former Deputy Minister of Alberta Energy, Associate Counsel, Miller Thomson, and a Senior Fellow at the C.D. Howe Institute.

The C.D. Howe Institute's reputation for quality, integrity and nonpartisanship is its chief asset.

Its books, Commentaries and E-Briefs undergo a rigorous two-stage review by internal staff, and by outside academics and independent experts. The Institute publishes only studies that meet its standards for analytical soundness, factual accuracy and policy relevance. It subjects its review and publication process to an annual audit by external experts.

As a registered Canadian charity, the C.D. Howe Institute accepts donations to further its mission from individuals, private and public organizations, and charitable foundations. It accepts no donation that stipulates a predetermined result or otherwise inhibits the independence of its staff and authors. The Institute requires that its authors disclose any actual or potential conflicts of interest of which they are aware. Institute staff members are subject to a strict conflict of interest policy.

C.D. Howe Institute staff and authors provide policy research and commentary on a non-exclusive basis. No Institute publication or statement will endorse any political party, elected official or candidate for elected office. The views expressed are those of the author(s). The Institute does not take corporate positions on policy matters.

COMMENTARY No. 534  
February 2019  
ENERGY AND NATURAL  
RESOURCES

\$12.00

ISBN 978-1-987983-93-7

ISSN 0824-8001 (print);

ISSN 1703-0765 (online)



A handwritten signature in black ink that reads 'Daniel Schwanen'.

*Daniel Schwanen*  
Vice President, Research

## THE STUDY IN BRIEF

Announcements of new energy and mining projects slowed after 2015, and, between 2017 and 2018, the planned investment value of major resource sector projects has plunged by \$100 billion – an amount equivalent to 4.5 percent of Canada’s gross domestic product.

Many projects in Canada have faced environmental assessments that take much longer than in comparator jurisdictions: Canadian timelines for mining projects are substantially longer than in Australia, and Canadian pipeline approvals are protracted relative to those in the United States.

Environmental assessments play a critical role in mitigating negative externalities on the environment and human well-being and resolving asymmetric information between project proponents and affected stakeholders. Assessment processes, however, should not discourage socially beneficial projects by imposing excessively high regulatory costs, protracted review timelines and excessive uncertainty around the finality of approvals.

Under Canada’s federal legislation for environmental assessments, most project approvals since 2012 have withstood court challenges. However, courts’ findings that federal governments failed to fulfill their constitutional duty to consult affected Indigenous peoples has resulted in the quashing of three approvals, including those for the Northern Gateway pipeline and Trans Mountain Expansion. The Minister of Justice and Minister of Crown-Indigenous Relations should update guidance for federal officials to ensure consistent consultation of Indigenous peoples – particularly prior to Cabinet’s decision – that satisfies the requirements from the past decade of case law on the duty to consult.

With investment in Canada’s resources sector already depressed, the federal government’s proposed Bill C-69 could further discourage investment in the sector by congesting the assessment process with wider public policy concerns and exacerbating the political uncertainty facing proponents with a highly subjective “public interest” standard that would likely apply to every project subject to an assessment.

To address fundamental problems in Bill C-69, legislation for impact assessment must: specify considerations for assessing projects that can be scoped and applied with reasonable consistency and predictability; preserve the role of independent and expert lifecycle regulators (specifically, the National Energy Board/Canadian Energy Regulator and Canadian Nuclear Safety Commission) in leading assessments; require a “significant” standard for a project’s effects before involving political decision-makers in approving the project; and specify a standard for “standing” that ensures review panels can focus proceedings on relevant submissions.

The federal government should undertake to compile and annually report on timelines for federal environmental assessments across major projects in Canada, as well as regularly and publicly benchmark performance relative to timelines for provinces and other countries – such as the United States and Australia.

---

*C.D. Howe Institute Commentary*© is a periodic analysis of, and commentary on, current public policy issues. Barry Norris and James Fleming edited the manuscript; Yang Zhao prepared it for publication. As with all Institute publications, the views expressed here are those of the authors and do not necessarily reflect the opinions of the Institute’s members or Board of Directors. Quotation with appropriate credit is permissible.

To order this publication please contact: the C.D. Howe Institute, 67 Yonge St., Suite 300, Toronto, Ontario M5E 1J8. The full text of this publication is also available on the Institute’s website at [www.cdhowe.org](http://www.cdhowe.org).

---

---

## Canada is at a crossroads with respect to the future of major natural resource projects. Federal policymakers face a significant challenge in structuring a regime that would provide clarity and predictability for new projects and ensure that stakeholders can trust the integrity of assessments.

Several projects – specifically, oil pipelines such as Northern Gateway and the Trans Mountain Expansion – have received adverse judicial decisions, leading various commentators to call into question the certainty of project approvals under the current environmental assessment regime (Langen et al. 2018, and Roman 2018). Additionally, commentators have observed that timelines for completing federal environmental assessments exceed international benchmarks, reducing Canada’s attractiveness for large capital projects (Drance, Cameron, and Hutton 2018). Between 2014 and 2018, the value of planned major energy and mining projects in Canada declined significantly. Actual annual investments in the natural resources sectors have decreased as well.

The federal government has proposed legislation under Bill C-69 to overhaul the federal approval process for major projects. The bill proposes to replace the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) with an *Impact Assessment Act* (IAA). As well, Bill C-69 would reconstitute the National Energy Board (NEB) as the Canadian Energy Regulator and eliminate its role in leading environmental assessments of pipeline projects.

As well, the new legislation would part with the framework for decision-making process under

CEAA 2012, which requires an assessment of environmental effects and, where significant adverse environmental effects are found likely, a cabinet-level determination of whether the effects are justified. Under the proposed IAA framework, the assessment would concern a wider set of potential effects, and any adverse effects would require the Minister of Environment and Climate Change (ECCC Minister) or cabinet to determine whether a project is in the “public interest.”

By requiring a ministerial or cabinet “public interest” determination for any project with potential adverse effects, Bill C-69 risks increasing subjectivity and politicization in project approvals. Additionally, the broad factors that would be required for impact assessments appear to invite submissions on broad policy concerns into the review process. The crowding of policy debates – for example, over Canadian policy for reducing greenhouse gas emissions – into project-specific determinations risks significantly prolonging the assessment process and exacerbating uncertainty for project proponents.

Additionally, it is unclear how Bill C-69 would resolve issues with the federal government’s approach to consulting and accommodating Indigenous peoples. Of 15 decisions since

2012 concerning environmental assessments initiated under CEAA 2012 or its predecessor *Canadian Environmental Assessment Act* (CEAA 1992), eight involved challenges to the federal government's duty to consult; those concerning only environmental assessments were all dismissed. The quashing by the Federal Court of Appeal of the approvals for Northern Gateway and the Trans Mountain Expansion resulted from the court's finding that federal government failed to adequately Indigenous groups before the federal cabinet granted approval for those projects – that is, *after* the submission of the environmental assessment reports for these projects.<sup>1</sup>

The IAA would require the assessment process to identify the adverse effects of projects on Indigenous peoples and to consider Indigenous knowledge; however, CEAA 2012 already includes similar considerations. Bill C-69 would not resolve the gap of dependable up-to-date guidance for federal officials to fulfill the government's constitutional duty to consult and accommodate Indigenous peoples. The lack of updated guidance<sup>2</sup> – and the Court's findings of the federal government's consultative failures on Northern Gateway and Trans Mountain Expansion – presents substantial uncertainty for proponents of any project that could affect Indigenous peoples.

Finally, the changes proposed under Bill C-69 appear disconnected with concerns of economic efficiency or the risk of discouraging major capital investments in Canada. Impact assessment plays a critical economic role by identifying and valuing potential negative externalities from projects and requiring appropriate mitigation. The “justification” approach under CEAA 2012 provides for political decision-making once an evidence-based process finds a project is likely to

produce negative externalities – that is, significant adverse environmental effects. In contrast, since any adverse effect would trigger a “public interest” determination under the IAA, approvals would regularly involve subjective decisions by the ECCC Minister or cabinet about the “public interest” of a project. Compared with the current relative certainty about considerations and thresholds for significant adverse environmental effects under CEAA 2012, the new regime could substantially increase political risk for proposed projects.

This *Commentary* proceeds with (1) an overview of the investment outlook for major resource projects in Canada; (2) an economic perspective on the efficient design of environmental assessment; (3) a summary of federal environmental assessment outcomes and timelines across major projects, including comparisons with timelines in Australia and the United States; and (4) an evaluation of the proposed model for federal impact assessment under Bill C-69, concluding that this legislation poses significant risks of discouraging major project investment in Canada.

## THE DAMPENED OUTLOOK FOR INVESTMENT IN CANADIAN ENERGY AND MINING PROJECTS

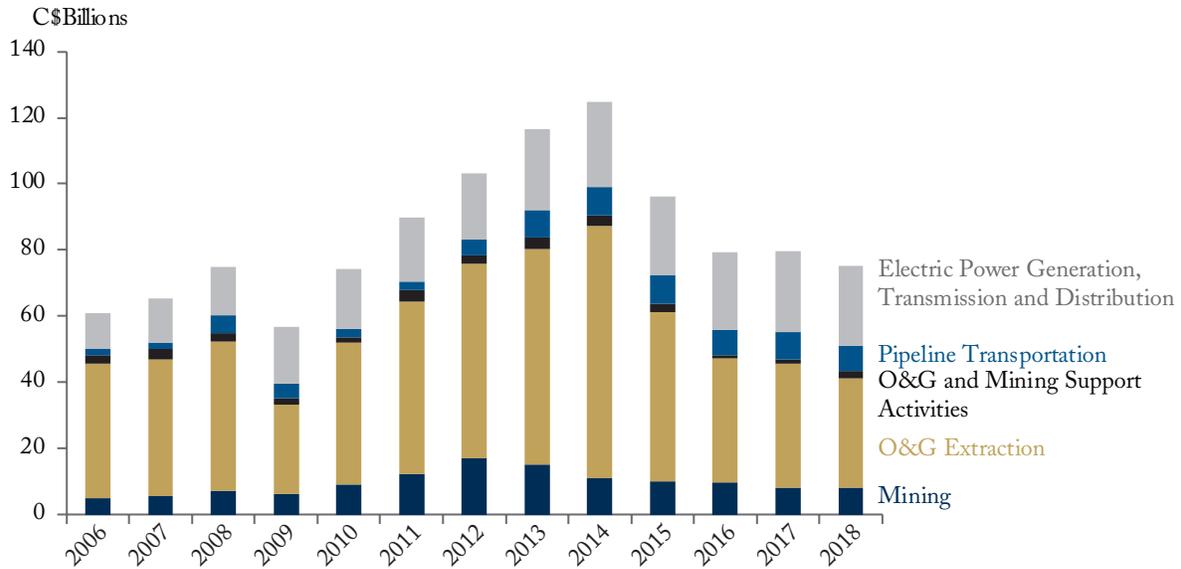
Investment intentions for energy and mining projects have slumped globally since 2015, but in Canada the decline has been even more precipitous. This decline in planned investment tracks the depression in actual annual investment in energy and mining since 2014 (see Figure 1).

Actual annual capital expenditures in energy – including oil and gas extraction, pipelines and electrical power and mining fell from \$125 billion in 2014 to \$75 billion in 2018. This \$50 billion

1 In those cases, the Federal Court of Appeal rejected arguments that the consultation by the Joint Review Panel and NEB was inadequate.

2 The latest published “Guidelines for Federal Officials to Fulfill the Duty to Consult” were issued in March 2011. See: <https://www.aadnc-aandc.gc.ca/eng/1331832510888/1331832636303#sec3>.

Figure 1: Annual Capital Investment in Energy and Mining



Source: Statistics Canada (Capital and Repair Expenditures, Non-Residential Tangible Assets).

decline is equivalent to roughly 20 percent of the \$239 billion in capital expenditures across all Canadian industries in 2018.

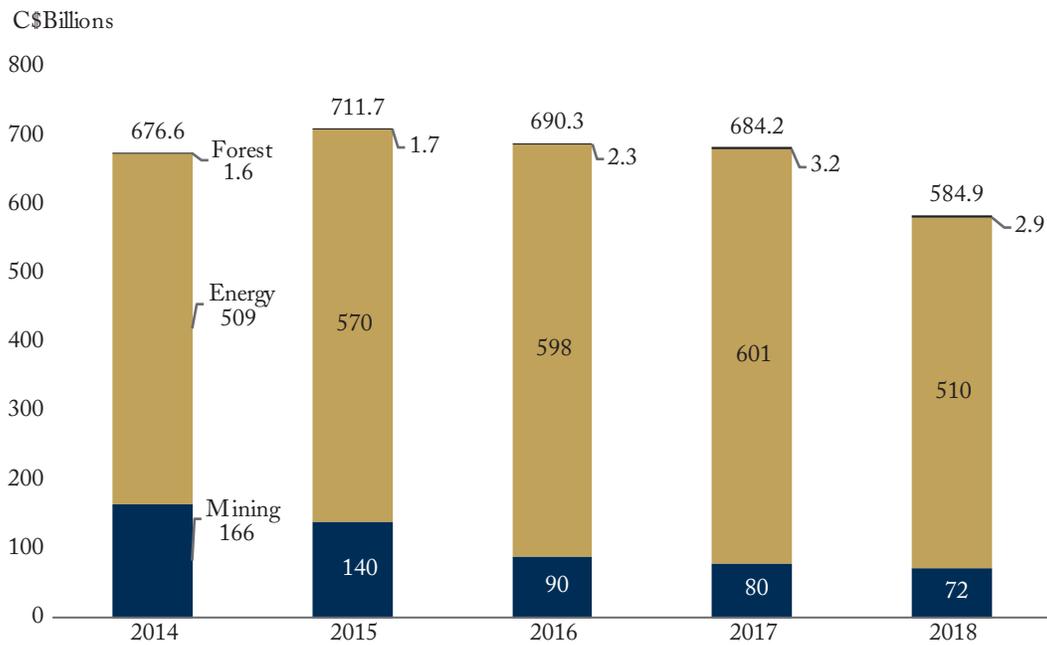
Since Natural Resources Canada began tracking planned investments in major natural resources projects in 2014, the projected value for these projects declined from a high of \$711 billion in 2015 to \$585 billion in 2018 (Canada 2018c, 3) – see Figure 2. From 2017 to 2018, 80 projects with a total investment value of \$76 billion were completed, but 37 other projects with an investment value of \$77 billion were suspended or cancelled.

Along with cancellation/suspension of various projects, this reduction in planned investment in Canada resulted from the slowing rate of announcements for major projects: Announcements of additional planned investment fell from \$160 billion in 2015 to \$48 billion in 2018 (Figure 3). In particular, the pace of new planned investments in the energy sector dropped from additions

of \$146 billion in 2015 to \$35 billion in 2018 (Canada 2018c, 4). The amount of planned capital investment that is actually invested varies from year to year. Newly announced projects need significant lengths of time to be ready for construction, and construction is typically a multiyear undertaking. As well, certain projects will be cancelled because of changing market conditions or the results of detailed feasibility studies. Between 2014 and 2018, roughly 10 percent of tracked projects were cancelled or suspended annually.

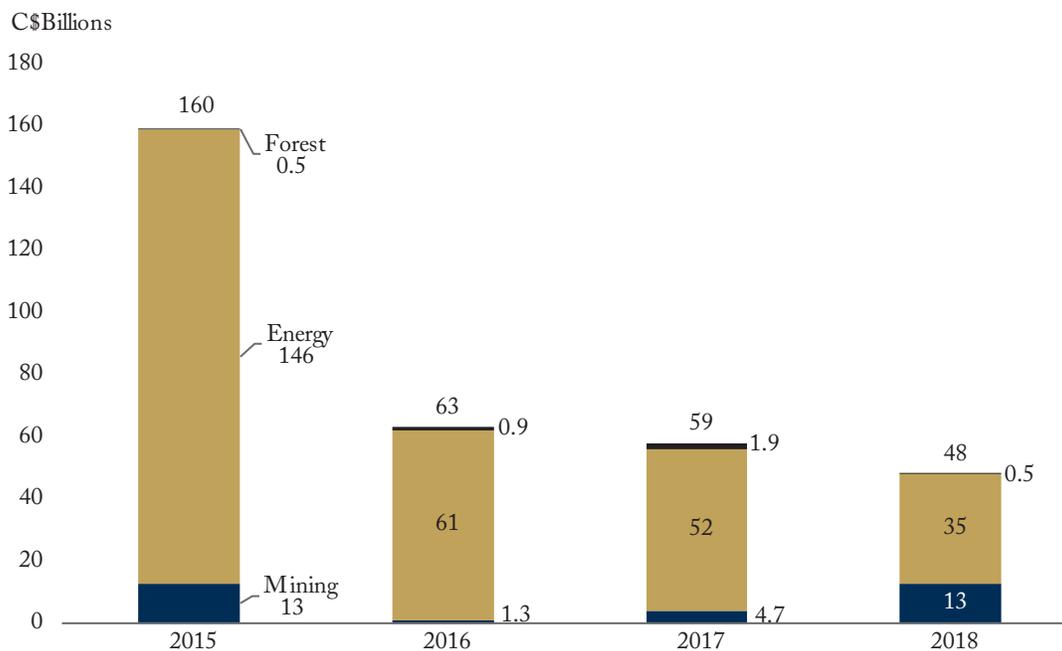
For context, a \$100 billion decline in the annual pace of capital investment represents approximately 4.5 percent of Canada’s gross domestic product. Since the rollout of project construction is staggered, the impact of reduced planned investment will be felt in Canada’s economy gradually – and potentially offset by other infrastructure investment and economic activity in other sectors. However, this slowed

Figure 2: Total Planned Investment for Major Natural Resource Projects in Canada



Source: Natural Resources Canada Major Projects Inventory 2018.

Figure 3: Additions to Planned Investment for Major Natural Resource Projects in Canada



Source: Natural Resources Canada Major Projects Inventory 2018.

pace of additions to Canada’s inventory of major resources sector projects since 2015 – and the \$100 billion plummet in the announced value of planned investment during 2018 – highlights the high risk for a substantial slump in overall Canadian capital investment in the years ahead.

### **Declining Intentions for New Energy Projects in Canada**

Planned major project investment in electricity projects has remained relatively stable, but the planned investment value of major oil and gas projects fell from a peak of \$485 billion in 2016 to \$393 billion in 2018 (Figure 4).

Major pipeline projects witnessed the greatest proportional decline in planned investment value, declining by 28 percent from \$95 billion in 2016 to \$68 billion in 2018 (NRCan’s inventory records cancellation or suspension of planned pipeline investments worth \$30 billion – including Energy East and Northern Gateway). Planned investment in natural gas-related projects also declined, by 26 percent between 2016 and 2018. This drop primarily resulted from the cancellation of major West Coast liquefied natural gas (LNG) facilities: Nexen’s cancellation of the Aurora LNG Facility in September 2017 (\$17 billion), Woodside Energy’s cancellation of the Grassy Point LNG project in

March 2018 (\$10 billion), Shell’s cancellation of the Prince Rupert LNG project in March 2017 (\$16 billion), and Petronas’s cancellation of the Pacific NorthWest LNG project in July 2017 (\$11.4 billion) (Canada 2018c, 7–8).<sup>3</sup>

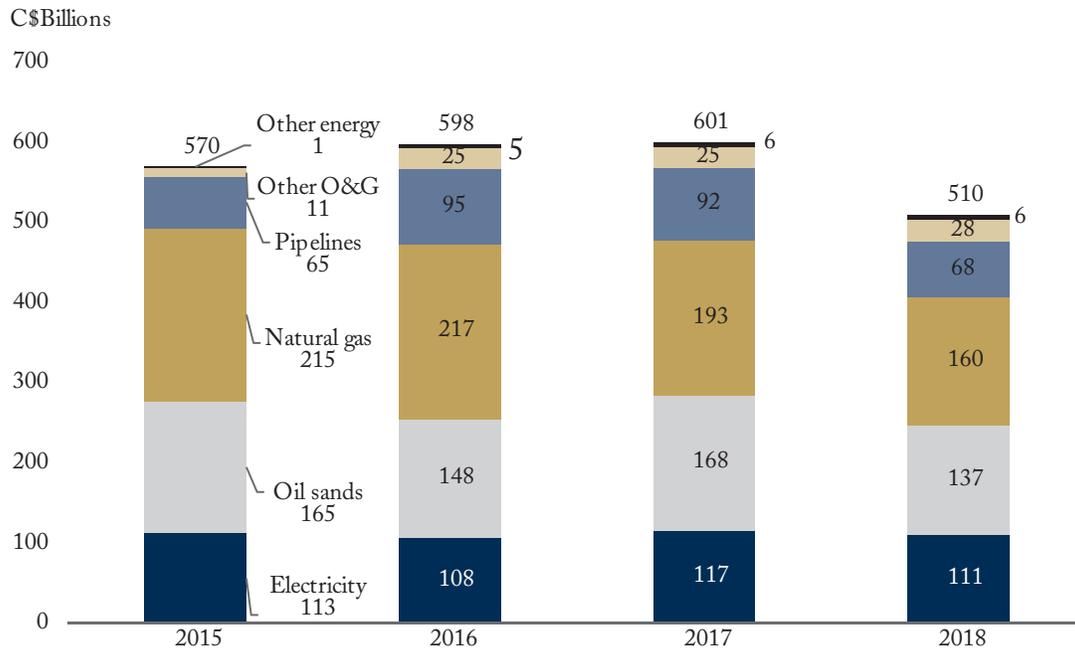
Globally, based on the International Energy Agency’s 2018 survey of company spending plans, annual capital investment in upstream oil and gas during 2018 rebounded from its trough in 2016 (International Energy Agency 2018). Nonetheless, Canadian capital investment in oil and gas extraction remained depressed (Figure 5), falling from an estimated high of nearly 9 percent of global upstream oil and gas investment in 2014 to less than 6 percent in 2018 (Figure 6).<sup>4</sup>

### **A Global Slump in the Mining Investment Outlook, but Even Deeper Plunge in Canada**

From a peak in 2012, actual annual capital expenditures for mining projects in Canada fell from \$16.9 billion in 2012 to \$8.1 billion in 2018 (see Figure 7). These depressed investment levels look likely to continue. According to Natural Resources Canada’s major project inventory, planned investment in mining projects plunged from \$166 billion in 2014 to \$72 billion in 2018, reflecting the completion of construction and the cancellation or suspension of various projects

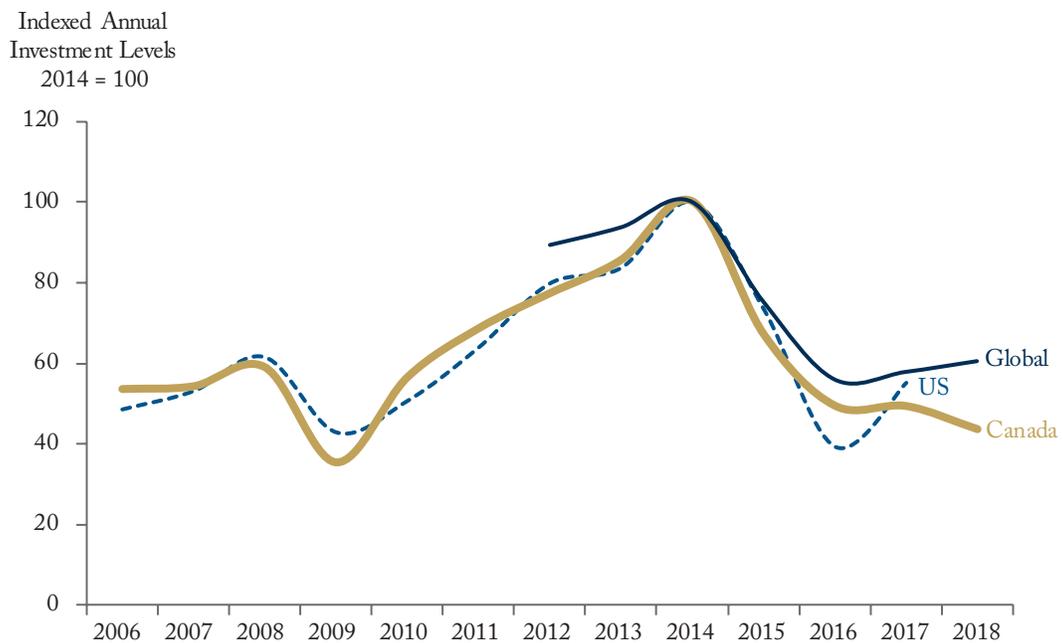
- 
- 3 Certain reviewers of this paper believe the cancellations of these projects were unrelated to the regulatory process. This paper does not take a position on proponents’ rationale for cancelling these projects. However, note that, in the case of Energy East, the proponent made public statements that suggest that regulatory uncertainty was a contributing factor (see, e.g., Canadian Press (2017): “TransCanada blames ‘substantial uncertainty’ for killing Energy East pipeline”). As well, proponents cancelled Aurora, Prince Rupert and Grassy Point LNG facilities after 3 years in environmental assessment processes, and the review of the Pacific Northwest LNG project required nearly 3.5 years (including over 2 years of “clock stop” time for information requests). Previous studies contended that early entry is critical to realize a narrow window for the LNG opportunity and that delayed construction could comprise the economics of Canadian projects – see, e.g., Moore et al. (2014).
- 4 Oil extraction in Western Canada faces unique challenges versus other oil-producing jurisdictions. As analysis by Dachis (2018) highlights, the discount on production faced by Canadian oil and gas producers as a result of lack of pipeline capacity for egress of represents the greatest policy-induced disadvantage for oil production in Western Canada. Additionally, production from oil sands historically involved a higher cost structure and, therefore, required higher realized per barrel prices for breakeven. However, since 2015, oil sands operators have significantly reduced operating and full-cycle capital costs to achieve breakeven costs near those for US shale basins – see: Synder (2017) and CERI (2018, 7-8).

**Figure 4: Total Planned Investment for Major Energy Projects in Canada**



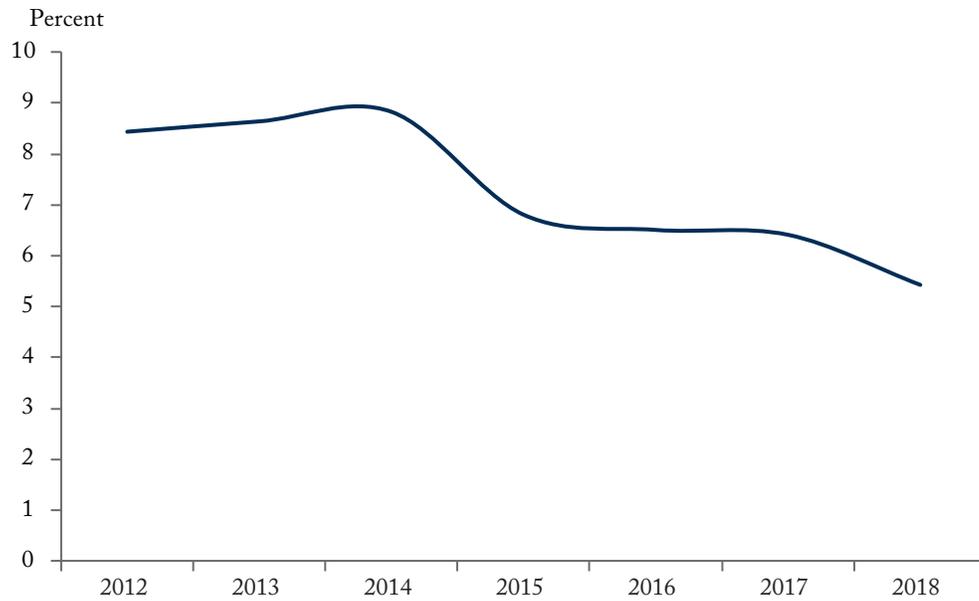
Source: Natural Resources Canada Major Projects Inventory 2018.

**Figure 5: Annual Capital Investment in Oil and Gas Extraction**



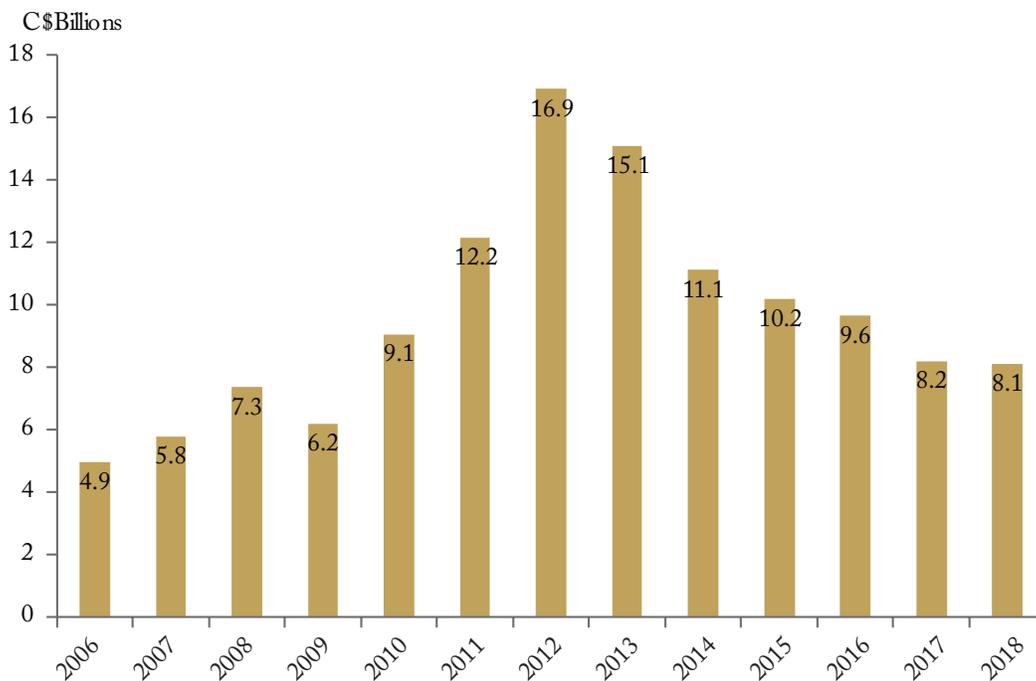
Sources: Statistics Canada (Capital and Repair Expenditures, Non-Residential Tangible Assets), US Bureau of Economic Analysis (Investment in Private Fixed Assets), International Energy Agency (World Energy Investment 2018).

**Figure 6: Canada's Estimated Share of Annual Global Capital Investment in Oil & Gas Extraction**



Sources: Statistics Canada (Capital and Repair Expenditures, Non-Residential Tangible Assets), International Energy Agency (World Energy Investment 2018).

**Figure 7: Annual Capital Investment in Mining in Canada**



Source: Statistics Canada (Capital and Repair Expenditures, Non-Residential Tangible Assets).

without offsetting planned investment from newly announced projects (Canada 2018c, 8–9). Although planned investment in mining projects has slumped globally since 2015, planned investment in Canadian major mining projects has declined even more rapidly. As Figure 8 shows, Canada’s share of planned investment in mining projects globally declined from approximately 13 percent in 2015 to just over 7 percent in 2018.

### THE ECONOMIC VALUE OF WELL-DESIGNED ENVIRONMENTAL ASSESSMENT

Proponents construct and operate large capital projects to realize a profit. However, major projects can adversely impact the quality of the natural environment and human well-being, and, unless required to mitigate potential effects, a profit-maximizing proponent may rationally decide to construct a project in a manner that imposes externalities on stakeholders. Additionally, when proposing a project, a proponent typically has more private information about the specific technical design and risks of a project than do stakeholders who might be affected by the project. Although the proponent’s reputational considerations might provide some offset, unless compelled by government, a proponent will seek to maximize a project’s stream of future profits and would rationally disregard potential effects on the environment and costs to other stakeholders.<sup>5</sup> Box 1

provides an illustration of a proponent’s incentive to externalize costs to other stakeholders.

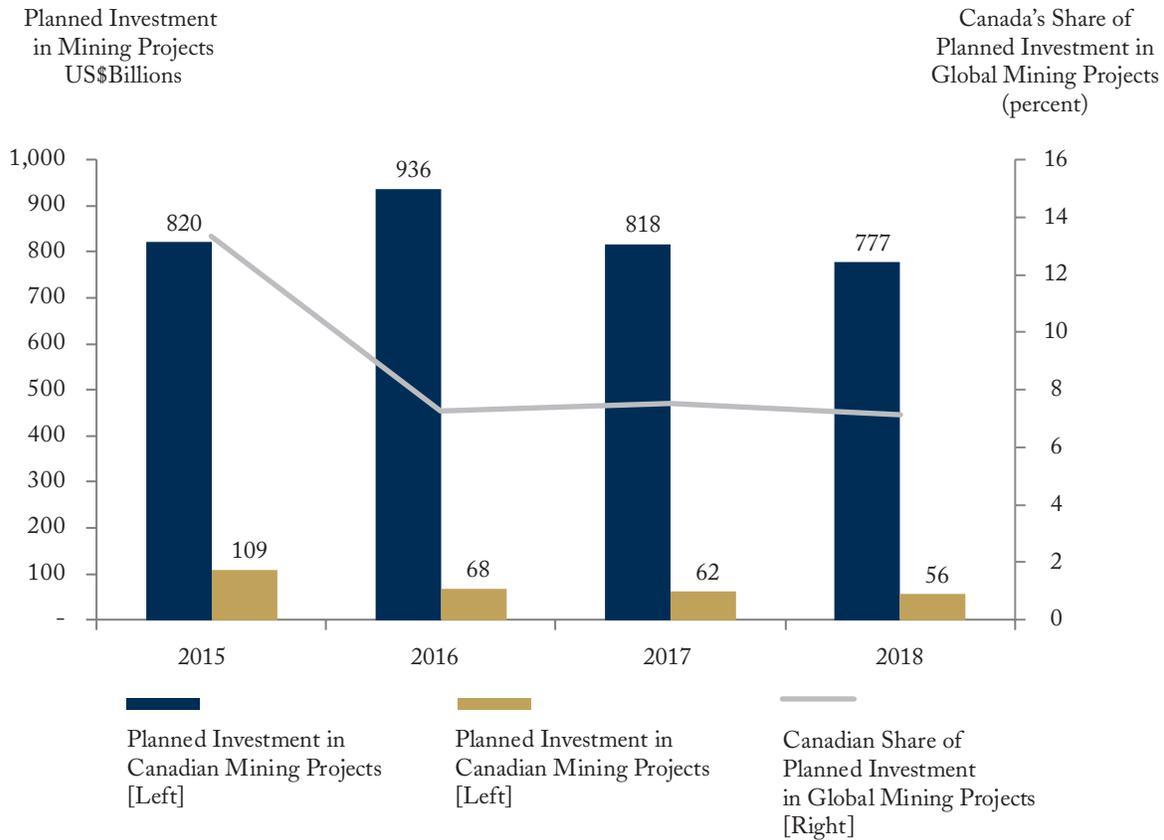
Government regulators play a critical role in offsetting the developer’s private incentive not to undertake socially beneficial mitigation.<sup>6</sup> Without requiring approval of a project and a process to compel disclosure of its risks, a rational profit-maximizing developer would underinvest in mitigation.<sup>7</sup> Environmental assessment of the project plays a role in identifying potential effects on the natural environment from the design of the project, as well as revealing private details about the project and the proponent’s private information about its risks.

Additionally, efficient environmental assessment identifies gaps in knowledge about the natural and human environment to reduce uncertainty around the risks from a project’s effects and to understand the value of potential effects on stakeholders. This ensures that mitigation is targeted at those effects or risks that reduce the value of the environment to stakeholders. Perspectives from affected stakeholders play a critical role in revealing preferences concerning environmental quality and the value of features of the natural environment. The economic role of the environmental assessment is to identify the social costs of the project’s environmental externalities, to internalize the cost of these effects and to require appropriate mitigation by the proponent.

From proponents’ perspective, it is advantageous to understand stakeholder concerns and the scope

- 
- 5 A parallel approach to defining the aim of environmental assessment – as being the “identification and disclosure of the environmental effects of development [to] constrain short-term economic – and political – interests” – is elaborated by Olszynski (2016).
- 6 Other commentators have argued that the concept of “economic efficiency” in regulatory decision-making should embrace externalities, such as environmental degradation, and that independent regulators are ill-placed to manage distributional tradeoffs between stakeholders – see, for example, Church (2017, 7-9).
- 7 In practice, a firm’s reputation and long-lived relationships with stakeholders could provide an incentive to mitigate environmental effects and risks. Many energy and mining companies have robust internal systems for assessing the effects of projects and managing risks that exceed minimum regulatory standards in the jurisdictions in which they operate.

**Figure 8: Canada’s Estimated Share of Planned Global Investment in Mining Projects**



Sources: Natural Resources Canada (Major Projects Inventory 2018), Industrial Info Resources (Project Surveys 2016-2019, Engineering & Mining Journal).

for relevant externalities as early as possible.<sup>8</sup> Foresighted proponents can also leverage the assessment processes to improve the design of a project by gathering and incorporating insights from stakeholders and other participants.

### The Essential Role of a Lifecycle Regulator in Environmental Assessment

So that environmental assessment ensures the identification and mitigation of externalities,

8 Many sophisticated proponents may undertake significant engagement with stakeholders prior to regulatory applications to understand concerns and anticipate likely issues. However, governments can enhance certainty for proponents by formalizing the “scoping” phase prior to commencing an assessment. This avoids confusion about the scope of effects during an assessment. The IAA usefully incorporates a “planning phase” (s.10-15). As Olszynski (2018) notes, this new phase appears a “bulked-up version” of the current “screening” decision under the CEAA 2012, which requires posting of the project description and an invitation for comments from the public. Hall Findlay and Orenstein (2019) also note the usefulness to proponents of requiring written notice if the ECCC Minister believes that a project will cause unacceptable effects at the conclusion of the planning phase (IAA, s.17(1)).

### Box 1: Hypothetical Illustration of Proponent's Considerations for a Major Project with Negative Externalities

For example, consider a 10-year mine project that would generate a stream of profits to a private developer with a net present value of \$600 million. Additionally, assume that the original design of the mine has a 10 percent probability of causing irreparable damage to a watershed over the course of the mine's life that would permanently reduce its value to stakeholders in the watershed by \$1 billion. Expected damages would then be 10 percent of \$1 billion, or \$100 million.\* Assume, however, that the developer could reduce the probability that damage would occur to zero by investing \$150 million in mitigation.

Even if required to compensate watershed stakeholders in event of an accident, a purely profit-maximizing developer would maximize the expected profit from the project by not mitigating, since the costs of mitigation would exceed the expected damages. Additionally, in an unregulated setting, the developer would have no incentive to disclose the potential risk to the watershed stakeholders. Finally, since such externalities would be borne by others, a purely profit-maximizing developer might not invest in scientific studies to understand the natural environment and assess the potential environmental effects of the project. Stakeholders in the watershed, however, likely would be risk-averse to any accident and, since they would receive no direct economic benefit from the project, would oppose a project that represented such a potential loss in ecological value.

\* Many stakeholders likely would not perceive ecological degradation in purely financial terms. This illustration, however, exhibits decision-making from the perspective of a purely profit-maximizing proponent. The example aims to underscore that such a proponent would not mitigate the risk despite the substantial potential cost to stakeholders.

the process should integrate the expertise of those government agencies that will regulate a project from construction through operation to decommissioning – the so-called “lifecycle regulator.” Beyond possible risks from particular projects, safety and environmental regulation ensures that any project in operation meets acceptable standards for the given industry across its lifecycle. Having experience concerning technical details of operations and failure modes in an industry, the lifecycle regulator is well-situated to assess risks and the adequacy of mitigation. The expertise of the lifecycle regulator helps to overcome the proponent's asymmetric knowledge about the project's effects. Moreover, since an environmental assessment will identify

the conditions necessary to mitigate externalities across the full life of a project, the lifecycle regulator is best positioned to monitor fulfilment of these conditions as part of the regular monitoring and reporting of the project's compliance.

#### **Role of Political Decision-Makers in Managing Tradeoffs**

Even with mitigation, certain projects may be likely to cause significant adverse environmental effects. However, a project also might provide public benefits and economic returns to other users in excess of a private developer's returns. For example, transportation infrastructure such as a railway might boost economic activity by providing a vital

link for the exports from an isolated region with comparatively specialized production capacity to markets where its products are in high demand.

Nonetheless, where a project involves the likelihood of significant adverse environmental effects but has offsetting benefits for the public, the decision will involve an evaluation of the balance between the value of negative and positive externalities of the project. A “justification” decision must therefore weigh the gains and losses for different stakeholders – including judgment about the balance of impacts on vulnerable or disadvantaged groups. In economic terms, the decision will involve a distributional allocation, with a weighting of different stakeholder groups in overall social welfare. Decision-making for project approvals following environmental assessments requires careful assignment to a decision-maker who is best placed to make distributional decisions.

Engineers and natural scientists are well placed to identify risks and potential biophysical effects. Socioeconomic studies can contribute to a factual understanding of market benefits, social impacts, and the economic costs and benefits for different groups. Where a project is likely to significantly affect the environment, however, politically accountable decision-makers play a critical role in making the necessary distributional decisions – specifically, in assigning relative weights to different stakeholders to determine whether a project’s benefits outweigh its significant effects.<sup>9</sup> Such political decision-makers must be equipped with the necessary factual information about the project’s costs and benefits. In other words,

determining whether a project with significant adverse environmental effects is of overall public benefit requires robust, objective assessments to equip politicians about both the nature and extent of the expected economic benefits and the lost value to stakeholders from environmental effects.

### **The Importance of Regional Studies and the Assessment of Cumulative Effects**

Investment in scientific studies to provide baseline data for a region provides a “public good” for both stakeholders and project proponents. Available information about a region’s significant biophysical, human health and social attributes provides inputs into decision-making about the potential effects of projects.<sup>10</sup> For proponents, available information reduces the risk of upfront costs for a project that would likely cause significant adverse environmental effects. Reciprocally, by proactively subsidizing information, regional studies can also provide increased certainty for proponents of “good” projects that these will likely receive approval, enhancing the attractiveness of the region for investment. For stakeholders who lack a direct financial return from a project but have substantial uncertainty about its externalized costs, the provision of publicly available information lowers the barrier for engaging with proponents around potential effects.

Alongside the provision of baseline data as a public good to assess individual projects, government investments in studies of regions also might help to identify the long-term cumulative effects of development: a single initial project might not trigger significant adverse effects for a

9 The interplay between the NEB’s independent regulatory processes in providing evidence-based technical evaluation and the role of political decision-making in balancing tradeoffs between stakeholders is discussed thoroughly in Harrison (2013, 778-779). Courts have also discussed the role of political decision-makers in the “polycentric” balancing of tradeoffs where significant environmental effects are concerned. See *Peace Valley Landowner Association v. Canada (Attorney General)*, 2015 FC 1027, at para. 59; *Pembina Institute for Appropriate Development v. Canada (Attorney General)*, 2008 FC 302, at paras. 72 and 74; and *Greenpeace Canada et al. v. Canada (Attorney General) et al.*, 2014 FC 463, at paras. 237 and 242.

10 Various studies of international best practices for environmental assessment highlight the importance of regional studies and assessment of cumulative effects.; see, for example, Worley Parsons (2016, 13–15).

region, but the cumulative effects of development from multiple projects may rise to this level. The baseline data produced using a regional study allow for the assessment of scenarios for development across multiple sectors and project types – avoiding a single “tipping point” project becoming the flashpoint for mounting adverse environmental effects in a particular region.

Notably, sections 73 and 74 of CEAA 2012 provide for regional studies that are to be considered in any environmental assessment.<sup>11</sup> However, as the Canadian Bar Association (2016, 5) has noted, such studies are rarely undertaken – despite increasing calls for their use. The lack of such regional studies may owe to a lack of guidelines for undertaking regional studies – which a 2014 report published by the Office of the Auditor General highlighted the Canadian Environmental Assessment Agency had yet to develop (Canada 2014, 4.69). CEAA 2012 requires collaboration with provincial governments for regional studies beyond federal lands, and significant questions also likely remain about how studies would be scoped, funded and updated, as well as protocols for who can access data from a study.

To address the gap in regional studies, the Canadian Bar Association (2016, 5-6) recommended a set of “legislative triggers” for a regional study.<sup>12</sup> Sections 92 and 93 of the proposed IAA under Bill C-69 provide for “a regional

assessment of the effects of existing or future physical activities” at the discretion of the ECCC Minister.<sup>13</sup> However, the IAA does not prescribe any specific triggers for a regional assessment.

### **Regulatory Costs and Timelines Risk Discouraging Beneficial Projects**

Although well-designed environmental assessment should address negative externalities and resolve information asymmetries, the process should also be designed to avoid discouraging socially beneficial projects because of high regulatory costs and protracted timelines for approval. Additionally, a proponent will internalize the perceived risk that a project may not be approved in its decision of whether to undertake the upfront planning and approval process. If potential proponents are highly uncertain about the probability of approval, they will be discouraged from proposing projects.<sup>14</sup>

More expressly, proponents will base their decisions to proceed with projects on a sufficiently positive net present value (NPV), discounting the future investment and expected returns from the investment. Proponents will also deduct the upfront costs for regulatory approval from the project’s NPV and, if uncertain whether a project will receive approval, reduce the expected value of the investment proportionately to the probability of

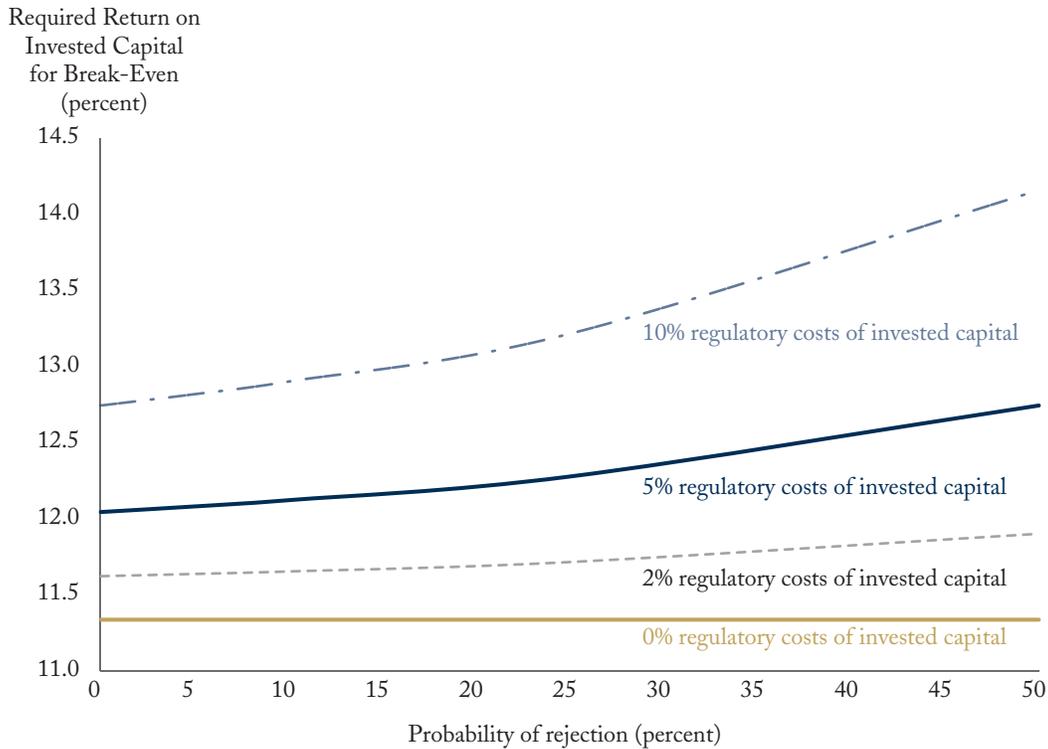
11 A similar provision for regional studies also existed under the predecessor legislation – section 16.2 of *Canadian Environmental Assessment Act*, SC 1992, c 37.

12 The Canadian Bar Association recommended such triggers might include: the unique value of a region or ecosystem; current or anticipated heavy development in a region; expectation of concerning cumulative effects; and cross-boundary impacts. Importantly, the Canadian Bar Association also strongly recommended that the status of a regional study should not be used to justify delaying, deferring, suspending or denying individual project applications.

13 Relative to CEAA 2012, a notable difference for regional studies/assessments under IAA would be that, if a region is outside or extends beyond of federal lands, the ECCC Minister may authorize the Impact Assessment Agency to conduct the assessment (s.93(a)(ii)) – although the agency must then offer to consult with provincial governments, agencies or Indigenous governing bodies (s.94). Under section 74(1)(a) of CEAA 2012, the ECCC Minister could only enter into an agreement or arrangement for a joint committee with such a jurisdiction.

14 By decreasing the expected net present value of an investment, regulatory delays can be analogized to charges that diminish pre-tax profits for a project.; see Mintz, Jack (2016), who estimates that, relative to timelines in Australia, protracted delays for major Canadian projects represent 24–39 percent of pre-tax profits, depending on the length of the delay.

**Figure 9: Required Return on Invested Capital for Break-Even Project at Increasing Regulatory Costs and Probability of Rejection**



Source: Authors' calculations for hypothetical example.

rejection. This means that, in order for a breakeven NPV, the marginal project must generate a higher annual return on invested capital (ROIC) – that is, annual net operating profit/invested capital – in each year after the initial investment.

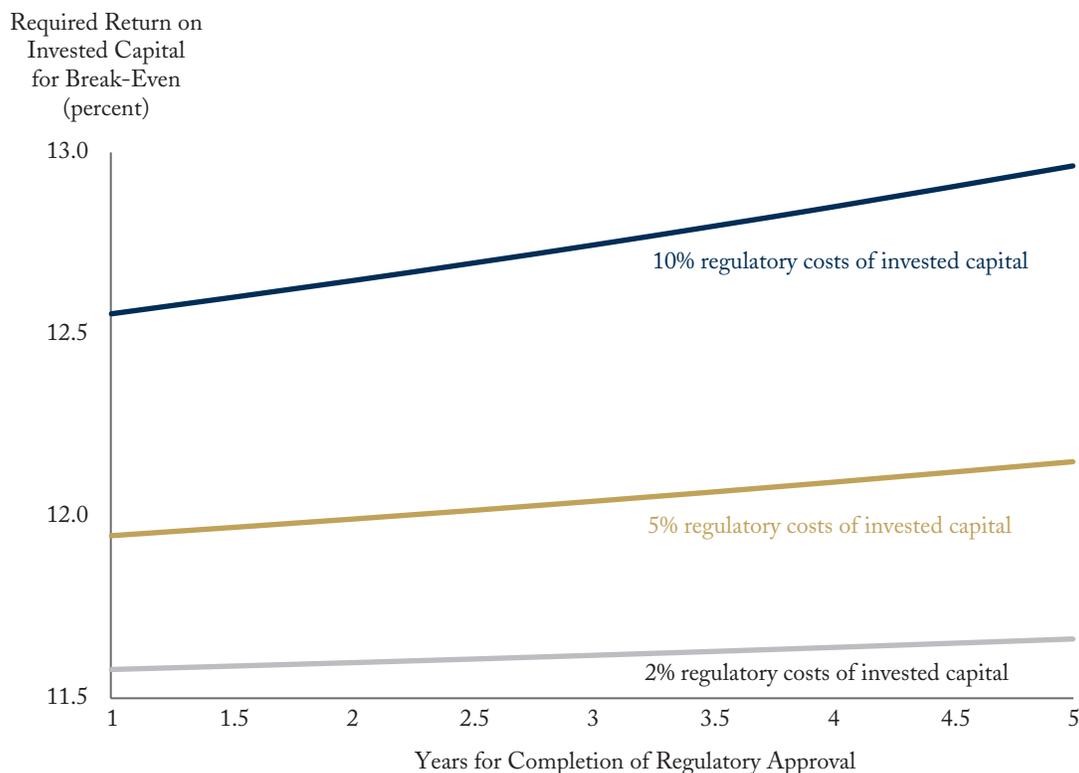
Figure 9 exhibits the effect of increasing regulatory approval costs and the probability of rejection on the required ROIC for a hypothetical project to break even.<sup>15</sup> For higher regulatory approval costs relative to the capital investment,

the project must achieve a higher ROIC in order to obtain a positive NPV. Additionally, if a project faces heightened regulatory approval costs (5 or 10 percent for the hypothetical project), a higher risk of rejection further steepens the required ROIC.

In the illustrative example in Figure 9, a project that had no risk of rejection and faced no regulatory approval costs would require a ROIC of only 11.3 percent for a break-even NPV. If, however, the

<sup>15</sup> This illustrates a hypothetical project with a 20-year production life discounted at a 7.5 percent weighted-average cost of capital. After a three-year approval period and two-year construction period, the project is assumed to have net annual cash flows for the next 20 years equal to the return on invested capital on the upfront capital investment. For an alternative view of the effects of regulatory timelines on project economics, see Holburn and Loudermilk (2017, 9).

**Figure 10: Impact of Delayed Approval on Required Return on Invested Capital for Break-Even Project**



Source: Authors' calculations for hypothetical example.

proponent perceived a 25 percent risk of rejection and faced regulatory approval costs of 10 percent of the capital investment, the project would require a ROIC of 13.2 percent. The example shows how beneficial projects might be discouraged by the assessment process: a proponent facing such costs and perceived risk of rejection would not propose a project with a 12 percent ROIC.

Similarly, an expected delay for approval will increase the required ROIC for a project. Figure 10 shows how lengthening the duration for approval results in a higher required ROIC – particularly with heightened regulatory approval costs. An increase in regulatory approval costs elevates the ROIC required for a break-even NPV, and the effect of protracted timelines for regulatory approval on the required ROIC becomes increasingly

pronounced as regulatory costs increase – as shown by the steeper slope of the curve in Figure 10 for 10 percent regulatory costs than that for 5 percent costs.

The example underscores the importance of a well-designed environmental assessment process that reduces uncertainty about the likelihood of approval, provides dependable timeframes, and lowers regulatory approval costs to the level needed to assess potential environmental effects.

## DECISION-MAKING UNDER THE PRESENT FEDERAL ENVIRONMENTAL ASSESSMENT REGIME

Canada's current framework for environmental assessment involves political decision-makers at the end of the process. As various commentators have

observed, the risks of political decision-making after a time-intensive and costly regulatory process might discourage proponents from undertaking projects.

Nonetheless, the present framework involves evidence-based determinations of environmental effects by independent agencies that have developed technical expertise specific to the nature of projects within their authority. Although federal ministers – and potentially the cabinet – may play a final decision-making role in the process, their decisions are informed by the reports and recommendations of these independent agencies. The current process for assessment and decision-making under CEAA 2012 is shown in Figure 11 and described in the accompanying Box 2. The role of political decision-making is effectively limited to balancing a project's benefits to society against negative externalities once independent assessments identify a likelihood of significant adverse environmental effects (SAEEs).

Political decision-makers (ministers and cabinet) fulfill roles at the end of the environmental assessment process. However, CEAA 2012 provides for independent and expert agencies or review panels to deliver environmental assessments that advise whether the project is likely to cause SAEEs and set-out the evidence for this determination. A minister – or cabinet for NEBA, s.54 (pipeline) determinations – would require a reasonable basis for departing from the finding concerning SAEEs in the environmental assessments. Where an environmental assessment finds a project is likely to cause SAEEs, political decision-making provides a role in balancing SAEEs against other societal objectives and preferences to determine whether these are justified.

In practice, a project should only face a political risk where it is likely to cause significant adverse environmental effects. If an independent

environmental assessment does not find that a project would cause significant adverse environmental effects, the minister would face a hurdle to decide otherwise and likely require a reasonable basis for doing so.

### **Most Federal Approvals Involve No Significant Adverse Environmental Effects**

The majority of federal approvals under CEAA 2012 have found that the project likely will not cause Significant Adverse Environmental Effects (SAEEs). Based on records from the Canadian Environmental Assessment Registry,<sup>16</sup> Table 1 summarizes the results of the 56 projects that have been reviewed under CEAA 2012 as of October 2018 (excluding transitional comprehensive studies and screenings from CEAA 1992). Of these, 28 projects were screened and required no environmental assessment and 28 projects required environmental assessments. Of the 28 environmental assessments under CEAA 2012, nine projects were found likely to cause SAEEs, and cabinet determined that the respective SAEEs were justified for six projects – including cabinet's original determination for the Northern Gateway project. For three projects, cabinet determined that the likely SAEEs were not justified in the circumstances. On average, projects that were determined to cause no likely SAEEs involved a much shorter median duration for the environmental assessment (2.5 years) than those for which SAEEs were likely (3.7 years). The median duration for projects that ultimately were justified was 3.7 years, while projects with SAEEs that were not justified required a median of 7.1 years for a final decision.<sup>17</sup>

16 Canadian Environmental Assessment Agency, "Canadian Environmental Assessment Registry," available online: <https://ceaa-acee.gc.ca/050/evaluations/Index?culture=en-CA> at <https://ceaa-acee.gc.ca/050/evaluations/Index?culture=en-CA>, accessed October 2018.

17 The duration of the process under CEAA 2012 was calculated as the time from a proponent's submission of a project description to the publication of the final decision.

## Box 2: Environmental Assessment under CEAA 2012

CEAA 2012 prohibits any “designated project” from proceeding without an environmental assessment and approval or, alternatively, a determination that an environmental assessment is not required. The “Designated Project List” provides a schedule of specified physical activities that require clearance under CEAA 2012.\* As well, the ECCC Minister may designate a project by ministerial order.

For designated physical activities regulated by the NEB or Canadian Nuclear Safety Commission (CNSC), an environmental assessment is required. For other activities on the Designated Project List, the Canadian Environmental Assessment Agency (CEAA) makes a “screening” determination of whether or not an environmental assessment is required based on whether the project could cause significant adverse environmental effects.

For projects that require an environmental assessment, the responsible authority (the NEB, CNSC or the CEA Agency) will conduct the assessment to determine if the project could cause significant adverse environmental effects (SAEEs). However, for designated projects that are not under the authority of the NEB or CNSC, the ECCC Minister may refer the assessment to a review panel (consisting of independent members with technical expertise relevant to the project’s potential environmental effects) or a joint review panel by agreement with another jurisdiction (typically a provincial government that has regulatory jurisdiction for aspects of a project) if the ECCC Minister believes it in the public interest. As well, for designated projects not under the authority of the NEB or CNSC, the ECCC Minister may substitute another jurisdiction’s process if this will provide an equivalent assessment of SAEEs.

Under CEAA 2012, the responsible authority or review panel is required to determine whether a project is likely to cause significant adverse environmental effects (SAEE). The current framework enumerates the set of “environmental effects” that are to be taken into account in an environmental assessment. The particular provision specifies biophysical effects – land, water and air; organic and inorganic matter and living organisms; and all interacting natural systems with these components. Where federal authority is to be exercised, CEAA 2012 also requires that the assessment also take into account the project’s incidental effects and other social and human considerations – such as, health, socio-economic conditions and cultural heritage – as “environmental effects.”

The decision-maker who determines whether a project is likely to cause significant adverse environmental effects depends on the responsible authority. For designated projects that are not under the authority of the NEB or CNSC, the ECCC Minister makes the SAEE determination. If the ECCC Minister – or the NEB or CNSC for projects under their respective authority – determines that a project is likely to cause SAEEs, the project must then be referred to cabinet to determine whether or not the SAEE is justified in the circumstances.

For decisions on new pipeline projects under section 54 of the *National Energy Board Act*, the environmental assessment is incorporated into the NEB’s determination of whether the pipeline is “required by the present and future public convenience and necessity”. This determination is the basis of a recommendation to cabinet, which is the final decision-maker under the *National Energy Board Act* for determining whether a project is in the “public interest”.\*\* Under section 29(2) of CEAA 2012, the NEB provides the environmental assessment to cabinet concurrently with its recommendation on public convenience and necessity. On the basis of this combined report, cabinet makes the determination of whether the project is likely to cause SAEEs and, if so, whether the SAEEs can be justified in the circumstances.

\* *Regulations Designating Physical Activities*, SOR/2012-147

\*\* Cabinet makes this determination under CEAA 2012 alongside its decision under the *National Energy Board Act* on whether the pipeline project is in the public interest (see CEAA 2012, s.31(1)).

**Table 1: Outcomes of Environmental Assessments under CEAA 2012**

	Type of Environmental Assessment	Number of Projects	Investment Value (\$C billions)	Mean EA Duration † (years)	Median EA Duration † (years)
<b>Environmental Assessments</b>		<b>28</b>	<b>101.6</b>	<b>3.9</b>	<b>2.6</b>
<b>Likely Significant Adverse Enviro. Effects</b>		<b>9</b>	<b>72.7</b>	<b>6.0</b>	<b>3.7</b>
<b>Justified</b>		<b>6</b>	<b>70.7</b>	<b>4.8</b>	<b>3.7</b>
LNG Canada Export Terminal Project	Substituted EA		40.0	2.2	
Pacific North West LNG Project	EA by RA (CEAA)		11.4	3.6	
Site C Clean Energy Project	Review panel		10.7	3.4	
Enbridge Northern Gateway Project *	Review panel		7.9	11.1	
Murray River Coal Project	EA by RA (CEAA)		0.7	4.7	
Akasaba West Copper-Gold Mine Project	EA by RA (CEAA)		0.1	3.7	
<b>Not Justified</b>		<b>3</b>	<b>1.9</b>	<b>8.5</b>	<b>7.1</b>
New Prosperity Gold-Copper Mine Project	Review panel		1.0	3.0	
Prosperity Gold-Copper Mine Project	Review panel		0.8	15.4	
EnCana Shallow Gas Infill in the Suffield NWA	Review panel		0.1	7.1	
<b>No Significant Adverse Enviro. Effects **</b>		<b>19</b>	<b>28.9</b>	<b>2.9</b>	<b>2.5</b>
<b>Screening (Environmental Assessment not required)</b>		<b>28</b>		<b>0.2</b>	<b>0.2</b>

**Notes:**

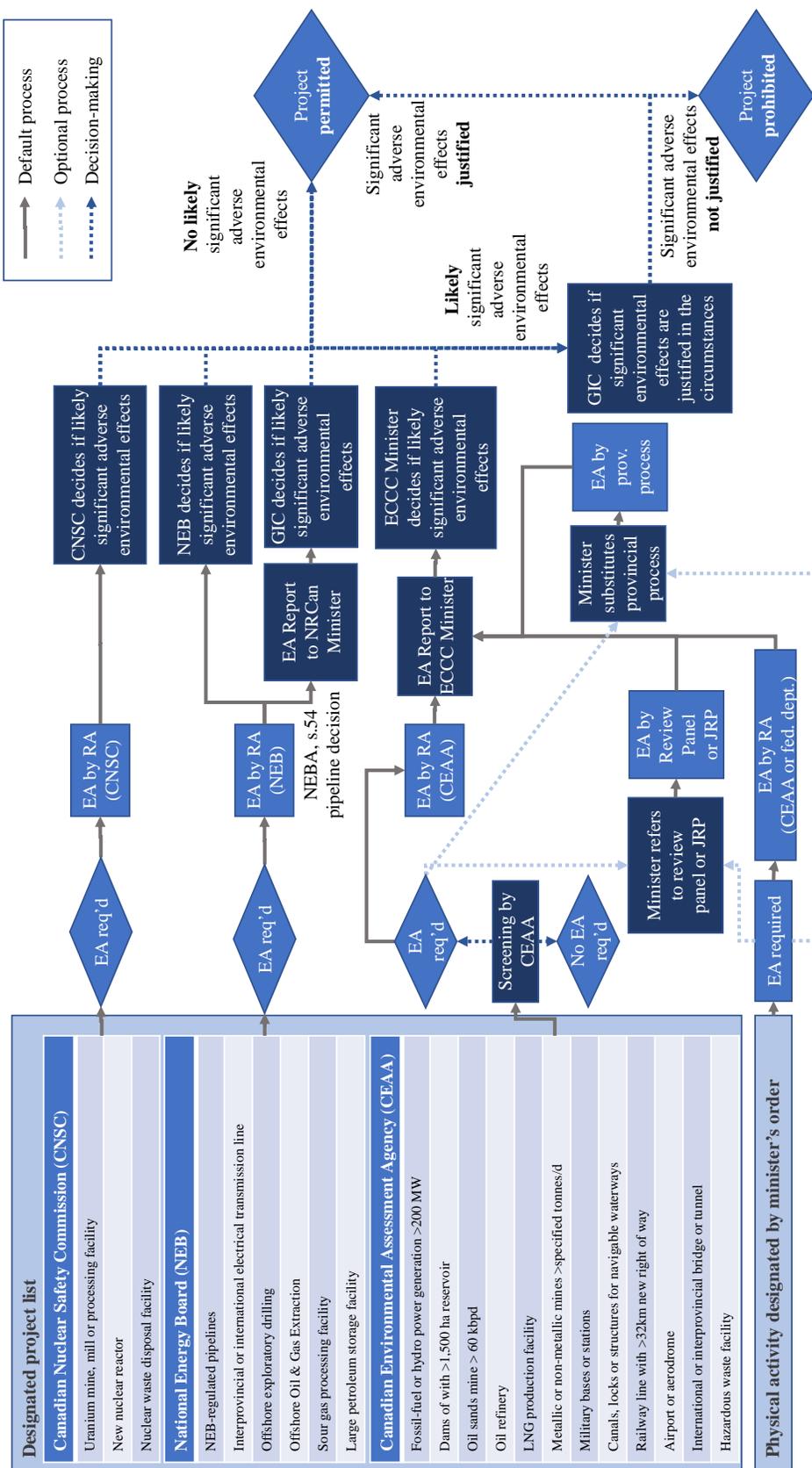
† The duration of the process under CEAA 2012 was calculated as the time from a proponent's submission of a project description to the publication of the final decision.

\* In the original GIC order in June 2013, the federal cabinet decided that the likely SAEs for Northern Gateway were justified; however, in its June 2016 decision in *Gitxaala Nation v. Canada*, 2016 FCA 187, the Federal Court of Appeal quashed this decision, finding inadequate consultation. The decision was remitted to the federal cabinet for re-determination and the new federal cabinet decided that the project's SAEs were not justified.

\*\* This includes the original GIC order concerning Trans Mountain Expansion, which relied on the NEB's finding of no SAEs; however, in its August 2018 decision in *Tsleil-Waututh Nation v. Canada (Attorney General)*, 2018 FCA 153, the Federal Court of Appeal quashed this decision. On direction from cabinet, the NEB is currently re-assessing the likelihood of SAEs with a project scope that includes effects of increased tanker traffic.

Sources: CEAA Registry, authors' calculations.

Figure 11: Canada's Federal Framework for Environmental Assessment and Decision-making under CEAA 2012



Source: Canadian Environmental Assessment Act, 2012, SC 2012, c 19, s 52.

## Political Risk at the Justification Step

The decisions concerning the Northern Gateway pipeline exhibit the potential variability and political risk concerning whether SAEs will be justified. In the original June 2014 determination, the federal cabinet (then of a Conservative government) found that the SAEs were justified.<sup>18</sup> On judicial review of this decision, however, the Federal Court of Appeal's June 2016 decision in *Gitxaala Nation v. Canada* (2016 FCA 187) quashed the cabinet's order. The Court's majority found that the (by then previous) cabinet had failed in its constitutional duty to adequately consult Indigenous peoples before approving the pipeline. The Court remitted the decision to approve the pipeline to the new federal cabinet (a Liberal government having been elected in October 2015) for redetermination. Importantly, the Court did not find that the cabinet had unreasonably determined the SAEs were justified; rather, the decision to quash cabinet's original order resulted from the Court's finding that the government failed to adequately consult.

Notably, the new cabinet did not undertake any additional formal consultations with affected Indigenous peoples to address the consultative deficiencies identified by the Federal Court of Appeal. In October 2016, however, the cabinet determined that the SAEs were not justified in the circumstances.<sup>19</sup> With one government reaching an opposite finding from another on the same facts, the reversal of the Northern Gateway approval illustrates the potential political variability surrounding the decision at the final "justification" step of CEAA 2012.

Commentators have also highlighted CEAA 2012's lack of a requirement that the federal cabinet provide reasons for a "justification" decision (see Olszynski 2013, 2014). Courts have recognized that the cabinet's "justification" determination is a "polycentric" decision that involves balancing a wide range of considerations and information, and that the cabinet is ultimately accountable to the electorate for its decisions.<sup>20</sup> Even without written reasons from cabinet, courts have afforded wide deference to the "justification" decision. Notably, in contrast with the "justification" decision under CEAA 2012, the "public interest" decision for any pipeline approval under section 54 of the *National Energy Board Act* (which incorporates any assessment under CEAA 2012 for the project) requires publication of the reasons for the decision.<sup>21</sup>

Although the omission of requirement for such reasons in CEAA 2012 might reflect Parliament's intention to insulate decision-making from court scrutiny of cabinet's substantive rationale, the lack of written reasons for justifying a project with SAEs means that both proponents and stakeholders are unable to discern the factors the cabinet considered and the weight it assigned to those considerations. As Olszynski (2014) has observed, a cornerstone of administrative law has long been that the provision of adequate reasons by political decision-makers enhances the political accountability of decisions and is necessary to ensure that "public regulation" is not exercised in an arbitrary manner.

18 See *Canada Gazette* 18, no. 26 (June 28, 2014), available online at <http://www.gazette.gc.ca/rp-pr/p1/2014/2014-06-28/html/order-decret-eng.html>

19 See *Canada Gazette* 150, no. 50 (December 10, 2016), available online at <http://www.gazette.gc.ca/rp-pr/p1/2016/2016-12-10/html/order-decret-eng.html>

20 *Peace Valley Landowner Association v. Canada (Attorney General)*, 2015 FC 1027 at paras. 67–8.

21 *National Energy Board Act*, RSC 1985, c N-7, s.54(2).

## Courts Uphold Environmental Assessments but Find Failure on the Duty to Consult

The results of judicial challenges to project approvals under CEAA 2012 indicate a high degree of certainty for the finality of federal environmental assessments and decision-making on the justification of any SAEs. However, courts' findings that the federal government failed to adequately consult affected Indigenous peoples has resulted in several reversals of project approvals.

Of 15 final decisions on challenges since 2012 concerning environmental assessments initiated under CEAA 2012 or CEAA 1992, eight concerned the duty to consult (see Table 2). In each of the three decisions in which the court quashed a project approval, the decision concerned the federal government's failure to fulfill its duty to consult affected Indigenous peoples.<sup>22</sup> In the remaining seven challenges, which concerned only environmental assessments initiated under CEAA 2012 or CEAA 1992, the respective court dismissed the challenge. Table 3 provides the focus of the challenge in each of the relevant cases. Except for *Tsleil-Waututh*, concerning the Trans Mountain Expansion, the courts upheld all decisions by the federal decision-maker that the project was not likely to cause SAEs or that the SAEs were justified in the circumstances. Likewise, the Federal Court of Appeal also dismissed a proponent's challenge of both an environmental assessment that found SAEs likely and the decision that the SAEs were not justified.<sup>23</sup>

## The Federal Government's Struggle to Fulfill Constitutional Duty to Consult

Although environmental assessment under CEAA 2012 is an administrative process prescribed by

**Table 2: Final Court Decisions since 2012 Involving Environmental Assessments Initiated under CEAA 2012 or CEAA 1992**

	Challenge Based on:	Duty to Consult	Only CEAA Decision
<b>Decisions</b>	<b>15</b>	<b>8</b>	<b>7</b>
Dismissed	12	5	7
Approval quashed	3	3	0

Source: Canadian Legal Information Institute (CanLII), authors' analysis.

legislation, governments in Canada also have a constitutional duty to consult Indigenous peoples and, if necessary, to accommodate Indigenous rights (see Box 2). This duty is grounded in the protection for "existing aboriginal and treaty rights" guaranteed in section 35 of Canada's 1982 Constitution. The duty arises when the Crown – that is, any Canadian government – contemplates conduct that might adversely affect Indigenous rights. Legislation may prescribe procedures to carry out consultation, but the adequacy of any consultation and accommodation is a constitutional question subject to review by the courts.

The last decade has yielded a substantial number of judicial decisions concerning the requirement of the duty to consult in particular circumstances. While case law has provided guidance on various aspects of the duty to consult, challenging legal issues remain open (Newman 2018, 11).

Governments continue to wrestle with fulfilling this duty adequately, as exhibited by recent decisions of the Federal Court of Appeal concerning the Northern Gateway pipeline in *Gitxaala Nation v. Canada* (2016 FCA 187) and the Trans Mountain

22 In *Tsleil-Waututh*, the Federal Court of Appeal also found that the cabinet had relied unreasonably on a flawed decision by the NEB to exclude the effects of increased tanker traffic from the scope of the project when determining whether the pipeline would likely cause significant adverse environmental effects.

23 *Taesko Mines v. Canada*, 2017 FC 1100.

**Table 3: Detailed Results of Final Court Decisions since 2012 Involving Environmental Assessments Initiated under CEAA 2012 or CEAA 1992**

Year	Project	Project Type	Challenge to:	Outcome	Court	Decision
2018	Trans Mountain Pipeline	Pipeline	"Decision that no SAEE, and duty to consult"	Approval quashed	FCA	<i>Tsilil-Wautub Nation v. Canada (Attorney General)</i> , 2018 FCA 153
2018	Aéroports de Montréal	Federal land development	Decision that no SAEE	Dismissed	FC	<i>Maloney v. Garneau</i> , 2018 FC 188
2018	Fraser Surrey Docks	Construction of transfer coal facility	Decision that no SAEE	Dismissed	FC	<i>Communities and Coal Society v. Canada (Attorney General)</i> , 2018 FC 35
2018	NGTL System Expansion Project	Pipeline	Duty to consult	Dismissed	FCA	<i>Bigstone Cree Nation v. Nova Gas Transmission Ltd.</i> , 2018 FCA 89
2017	New Prosperity Gold-Copper Mine	Mine	Decision that SAEE not justified	Dismissed	FC	<i>Taseko Mines Limited v. Canada (Environment)</i> , 2017 FC 1100
2017	Seismic testing in Baffin Bay and Davis Strait	Offshore Oil & Gas exploration	Duty to consult	Approval quashed	SCC	<i>Clyde River (Hamlet) v. Petroleum Geo-Services Inc.</i> , 2017 SCC 40
2017	Site C Clean Energy Project	Hydroelectric facility	Decision that SAEE justified and duty to consult	Dismissed	FCA	<i>Prophet River First Nation v. Canada (Attorney General)</i> , 2017 FCA 15
2016	Northern Gateway	Pipeline	"Decision that SAEE justified, and duty to consult"	Approval quashed	FCA	<i>Gitxaala Nation v. Canada</i> , 2016 FCA 187
2016	Darlington Nuclear Generating Facility	Nuclear facility	Decision that no SAEE	Dismissed	FCA	<i>Greenpeace Canada v. Canada (Attorney General)</i> , 2016 FCA 114
2015	Site C Clean Energy Project	Hydroelectric facility	Decision that SAEE justified	Dismissed	FC	<i>Peace Valley Landowner Association v. Canada (Attorney General)</i> , 2015 FC 1027
2015	Darlington Nuclear Generating Station	Nuclear facility	Decision that no SAEE	Dismissed	FCA	<i>Ontario Power Generation Inc. v. Greenpeace Canada</i> , 2015 FCA 186
2015	Muskat Falls	Hydroelectric facility	Duty to consult	Dismissed	FC	<i>Nunatukavut Community Council Inc. v. Canada (Attorney General)</i> , 2015 FC 981
2014	Jackpine Mine Expansion Project	Oil Sands Mine	"Decision that SAEE justified, and duty to consult"	Dismissed	FC	<i>Adam v. Canada (Environment)</i> , 2014 FC 1185
2014	Darlington Nuclear Generating Station	Nuclear facility	Decision that no SAEE	Dismissed	FC	<i>Greenpeace Canada v. Canada (Attorney General)</i> , 2014 FC 1124
2014	Muskat Falls	Hydroelectric facility	Decision that SAEE justified and duty to consult	Dismissed	FCA	<i>Council of the Innu of Ekuanitshit v. Canada (Attorney General)</i> , 2014 FCA 189

Challenge concerns duty to consult Indigenous peoples.

Challenge resulted in quashing of approval.

Source: Canadian Legal Information Institute (CanLII), authors' analysis.

### Box 3: The Constitutional Duty to Consult and Accommodate Indigenous Peoples

If potential Indigenous rights or title might be adversely affected by a project, Indigenous claimants may challenge the sufficiency of consultation leading to the ultimate decision-making by governments. This includes decisions under CEAA 2012 or to an order to issue certificates of public convenience and necessity for pipelines under the *National Energy Board Act*.

The Supreme Court of Canada articulated this constitutional duty in its 2004 decision in *Haida Nation v. British Columbia (Minister of Forests)* (2004 SCC 73). In that decision, the Court explained that this duty is necessary to safeguard the constitutional recognition of title or rights resulting from prior Indigenous occupation of the land, pending proof and resolution of the specific claim. The Court elaborated that “the duty to consult and accommodate is part of a process of fair dealing and reconciliation that begins with the assertion of sovereignty and continues beyond formal claims resolution” (*Haida*, at para. 32).

As well, the Court emphasized that the duty to consult is rooted in Indigenous claims to rights and title that previous jurisprudence had recognized. The Court noted that, although certain Indigenous claims had been reconciled by negotiated treaties, other potential rights remained undetermined. As such, the duty to consult “preserves the Aboriginal interest pending claims resolution and fosters a relationship between the parties that makes possible negotiations, the preferred process for achieving ultimate reconciliation” (*Haida*, at para. 38).

Correspondingly, the Supreme Court also indicated that the extent and specific content of the duty to consult will be calibrated to the strength of the Indigenous claim and the seriousness of the potential adverse effect upon the claimed right or title. The duty falls along a spectrum: this runs from a low-end where government might be required only to give notice of the contemplated conduct, disclose relevant information and discuss any issues raised in response to the notice (*Haida*, at para. 43). At the other end, “deep consultation” would be required when Indigenous peoples establish a strong *prima facie* case for the claim, that the right and potential infringement is of high significance to Indigenous peoples and the risk of non-compensable damage is high (*Haida*, at para. 44). Deep consultation may entail the opportunity to make submissions, formal participation in the decision-making process, and the provision of written reasons to show that Indigenous concerns were considered and how those concerns were factored into the decision (*Haida*, at para. 44).

The Court emphasized that consultation is not a “veto” and that “consent” will be required only in certain cases of established Indigenous rights. Nonetheless, governments must engage in a process of “balancing interests” and “give and take” in order “to balance societal and Aboriginal interests in making decisions that may affect Aboriginal claims” (*Haida*, at paras. 45 and 48).

The Supreme Court of Canada also has recognized that Parliament may delegate procedural aspects of the duty to consult to proponents, government tribunals or agencies. For example, the Court found that the NEB specifically has considerable institutional and technical expertise in overseeing consultations, assessing the environmental effects of proposed projects and identifying forms of accommodation (see *Clyde River (Hamlet) v. Petroleum Geo-Services Inc.*, 2017 SCC 40, at paras. 33–4). Nonetheless, the “Crown” alone, however, retains ultimate legal responsibility for ensuring the adequacy of consultation (*Haida*, at para. 53).

Expansion in *Tsleil-Waututh Nation v. Canada* (2018 FCA 153). Importantly, in both decisions, the Court affirmed the adequacy of Indigenous consultation by the Joint Review Panel or NEB during the pre-hearing and hearing processes for the environmental assessment and recommendation. For both projects, however, the Court found the post-report consultation prior to the cabinet's decision to have been inadequate.

In *Gitxaala*, the Federal Court of Appeal majority determined that Crown had failed to engage in dialogue, to grapple with the concerns raised by First Nations and to provide a meaningful response to material concerns raised by First Nations, noting that “[m]issing was someone from Canada’s side empowered to do more than take notes, someone able to respond meaningfully at some point” (*Gitxaala*, at para. 279).

Similarly, in *Tsleil-Waututh*, the Court found that, for the post-report consultations, “the Crown consultation team’s implementation of their mandate essentially as note-takers”, and that “missing was a genuine and sustained effort to pursue meaningful, two-way dialogue. Very few responses were provided by Canada’s representatives in the consultation meetings” (*Tsleil-Waututh*, at para. 756). In both decisions, the Court’s reasons extensively canvassed evidence of the consultations to support its conclusions about the inadequacy on consultation.

Notably, the Federal Court of Appeal’s decision in *Gitxaala* concerning the Northern Gateway project was issued in June 2016. Therefore, the federal government had the benefit of the Court’s reasons during the post-report consultation phase

of the Trans Mountain Expansion, which took place from February to November 2016, before the cabinet then approved that project in November 2016. This makes the federal government’s failure to fulfill its duty to consult – and a mirror error of a mere “note-taking” mandate – a puzzling misstep.<sup>24</sup>

## THE DURATION OF ENVIRONMENTAL ASSESSMENT

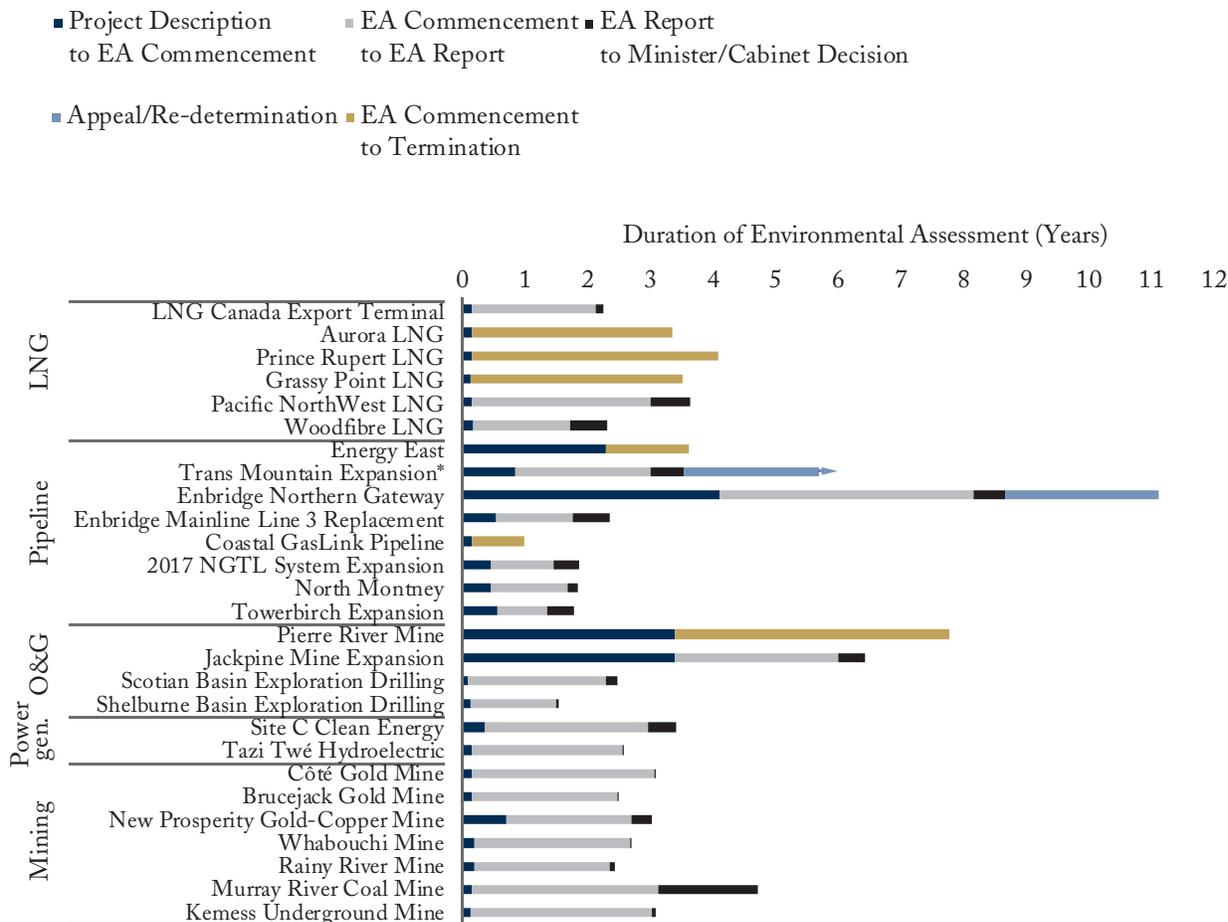
Environmental assessments of certain projects, such as those for Northern Gateway and the Jackpine Mine Expansion, have taken prolonged lengths of time. For assessments and decision-making for mining and oil extraction projects, average timelines in Canada have significantly exceeded those in Australia. A significant number of projects have been cancelled while environmental assessments were underway, some for more than three years – such as the Pierre River Mine project and the Grassy Point, Aurora and Prince Rupert LNG projects.

As Figure 12 shows, most environmental assessments of projects with a value of over \$500 million were completed within three years, and the median length of time was 2.6 years.<sup>25</sup> As Figure 13 indicates, however, many larger projects have faced longer assessment periods and assessment completion times vary by project type. Environmental assessments for LNG were completed relatively quickly – that of the \$40 billion LNG Canada project, for example, required only 2.2 years to complete. As well, approvals for smaller gas pipeline projects like the North Montney and NGTL system expansion have been completed relatively rapidly and the Enbridge Line

24 For a discussion of the similarities in the Federal Court of Appeal’s findings in *Gitxaala* and *Tsleil-Waututh*, see Wright (2018, 201-205). Additionally, the lack of consistent guidance on the duty to consult for federal officials was highlighted in an expert report for Minister of Indigenous and Northern Affairs in May 2016. This report also emphasized, in the current federal guidelines, “the significant focus on documentation perpetuates the perception that consultation is simply a process to record rather than meaningfully address concerns” [emphasis added] (Gray 2016).

25 The duration of the process under CEAA 2012 was calculated as the time from a proponent’s submission of a project description to the publication of the final decision.

**Figure 12: Duration of Federal Environmental Assessments for Projects >\$500 Million Investment Value**



Sources: CEAA registry, authors' calculations.

3 replacement was approved in just over two years. In contrast, larger liquids pipelines to the West Coast (Northern Gateway and the Trans Mountain Expansion) have been highly contentious and faced protracted timelines for completing environmental assessments (not including the additional duration and uncertainty from subsequent litigation).

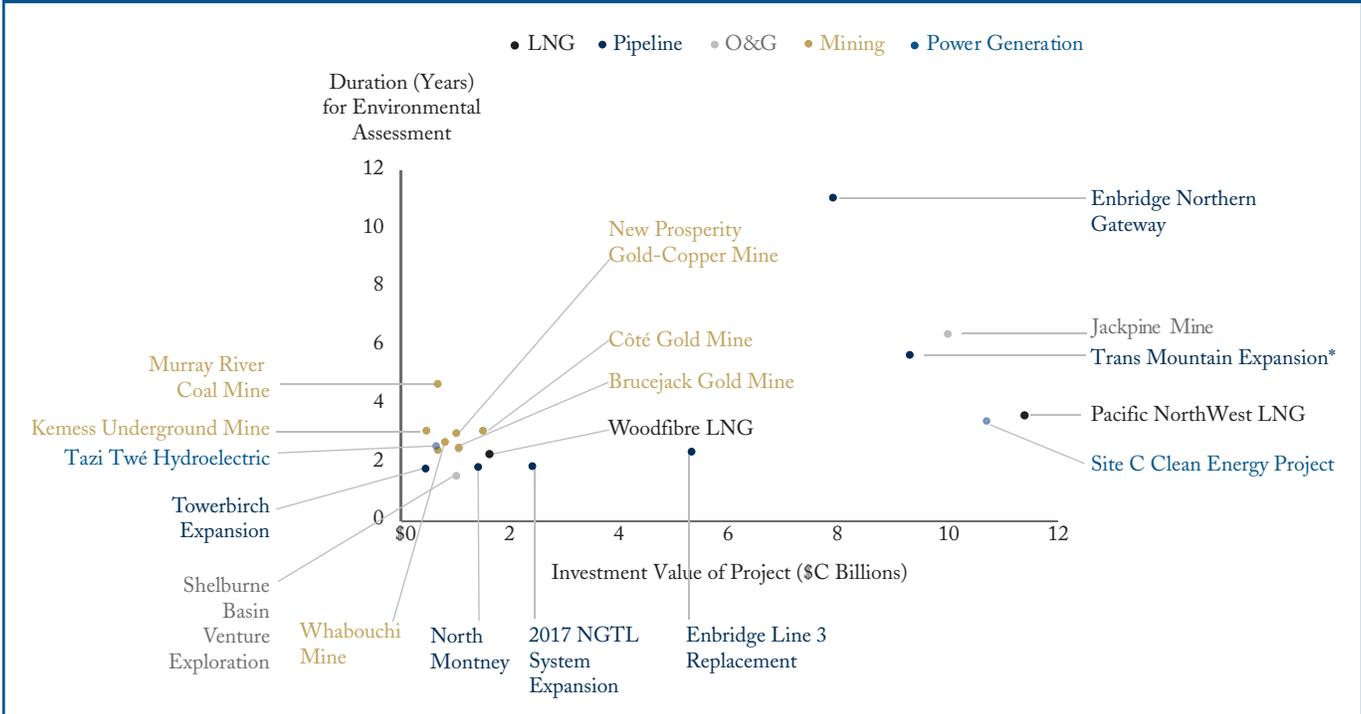
As shown in Figure 14, most environmental assessments and decisions are completed in less than three years, but a substantial number of projects have taken longer. Since 2012, moreover, the average length of an environmental assessment has been highly variable (see Figure 15). Durations

for CEAA 2012 decisions completed in a given year have averaged from 2.4 to 3.0 years since 2015, and durations vary widely between individual projects.

### The Prolonging of Assessments by “Clock Stop” Periods for Information Requests

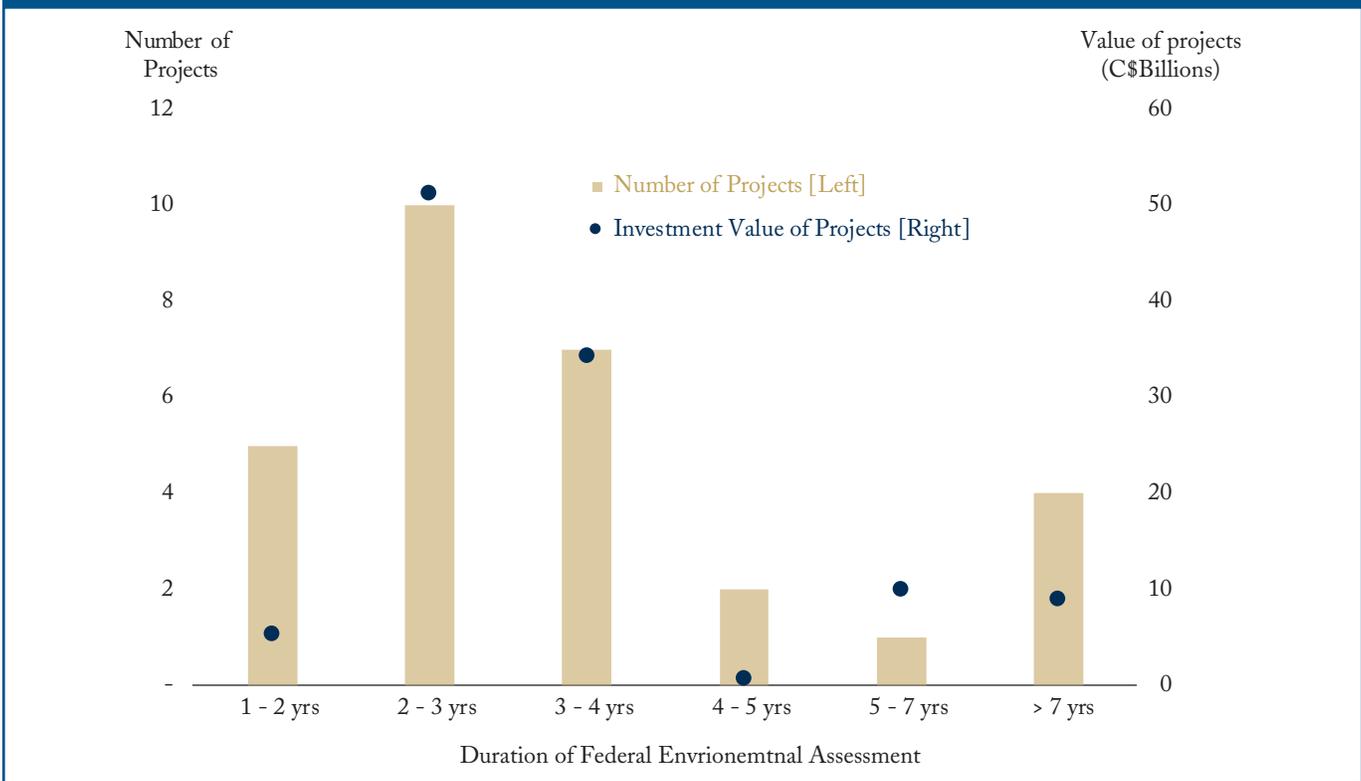
Many environmental assessments involve multiple rounds of information requests. In order to complete the environmental assessment, a responsible authority or review panel can request a proponent to complete an environmental impact study or provide other information. During the

**Figure 13: Duration of Federal Environmental Assessments by Project Type and Value for Projects >\$500 Million**



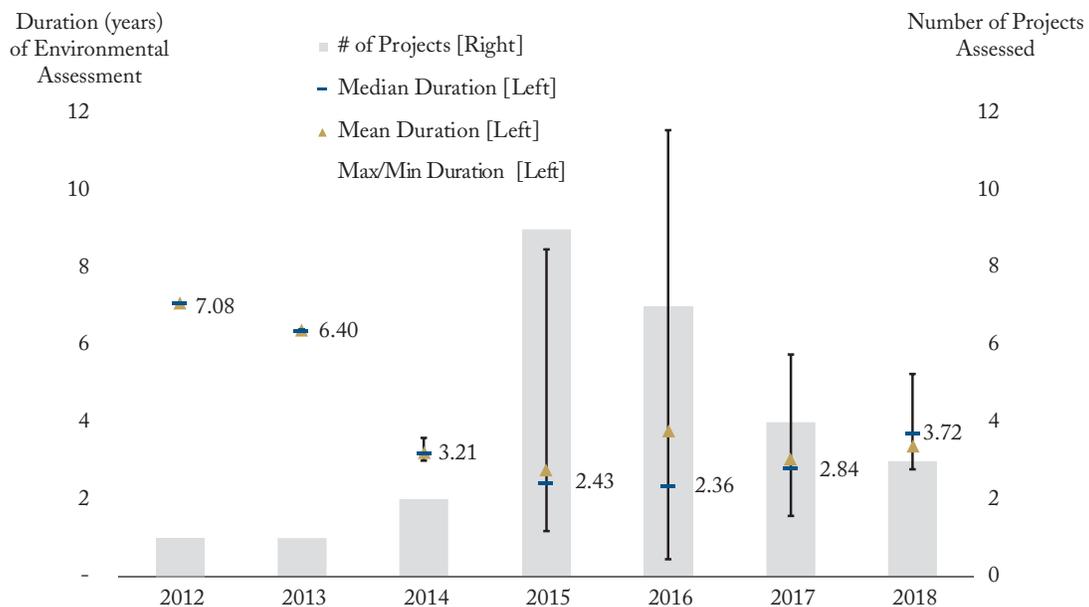
\* As of February 2018, the Trans Mountain Expansion project awaits re-determination following the quashing of the original GIC order in the August 2018 decision by the Federal Court of Appeal (*Tsleil-Waututh Nation v. Canada (Attorney General)*, 2018 FCA 153).  
Sources: CEAA registry, authors' calculations.

**Figure 14: Number and Value of Projects by Duration of Federal Environmental Assessment**



Sources: CEAA registry, authors' calculations.

**Figure 15: Duration of Federal Environmental Assessments across Canada since 2012**



Sources: CEAA registry, authors' calculations.

period when any information request is outstanding, the statutory timeframe for completing the assessment pauses until the proponent adequately responds to the request – a so-called “clock stop” on the timeline.

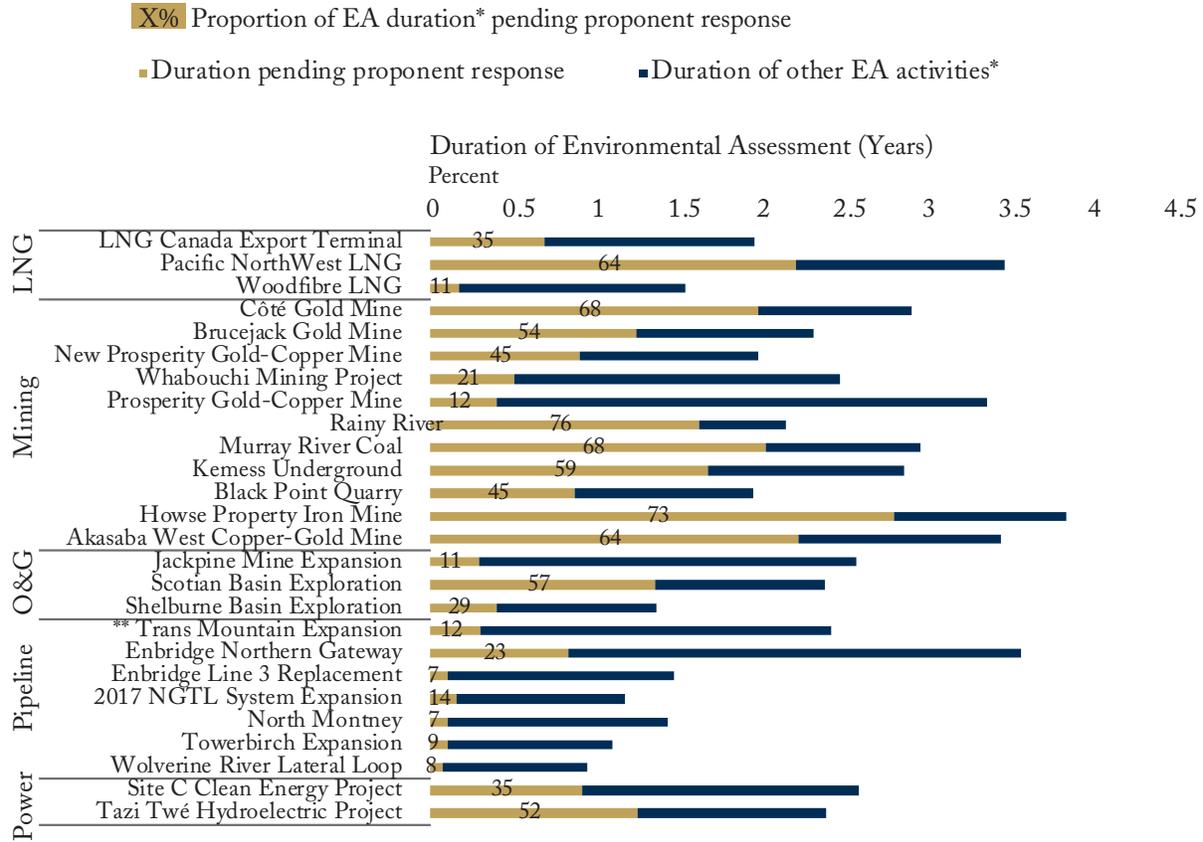
Figure 16 exhibits the proportion of “clock stop” time during environmental assessments under CEAA 2012. For environmental assessments of mining projects, the time for proponents to respond to information requests frequently comprises more than half the total duration of the assessment – that is, from the beginning of the assessment to the delivery of the report to the decision-maker. Otherwise, the time required for proponents to respond to information requests during an assessment can vary widely – likely as a function of the complexity of considerations that arise for a project and the proponent’s anticipation of issues in advance of the review.

Notably, for assessments of pipeline projects, the time allowed proponents to deliver an adequate response to information requests has been relatively short compared to the duration of the assessments. In approval processes for pipelines, NEB/review panel processes, pre-hearing procedures and submissions typically comprise most of the period for completing the report. Figure 17 illustrates the decision-making timeline for the Northern Gateway project, showing that joint review panel (JRP) processes and pre-hearing procedures consumed the majority of the time for completing the JRP’s report.

### Comparison of Canadian, Australian and US Assessment Periods

In order to compare timelines to international peers, we have analyzed data on federal environmental

**Figure 16: Duration of “clock stop” Periods during Environmental Assessments (pending proponent responses to information requests)**



\* EA duration is from commencement of EA to delivery of the EA report by the Responsible Authority or Review Panel.

\*\* As of February 2018, the Trans Mountain Expansion project awaits re-determination following the quashing of the original GIC order in the August 2018 decision by the Federal Court of Appeal (*Tsleil-Waututh Nation v. Canada (Attorney General)*, 2018 FCA 153).

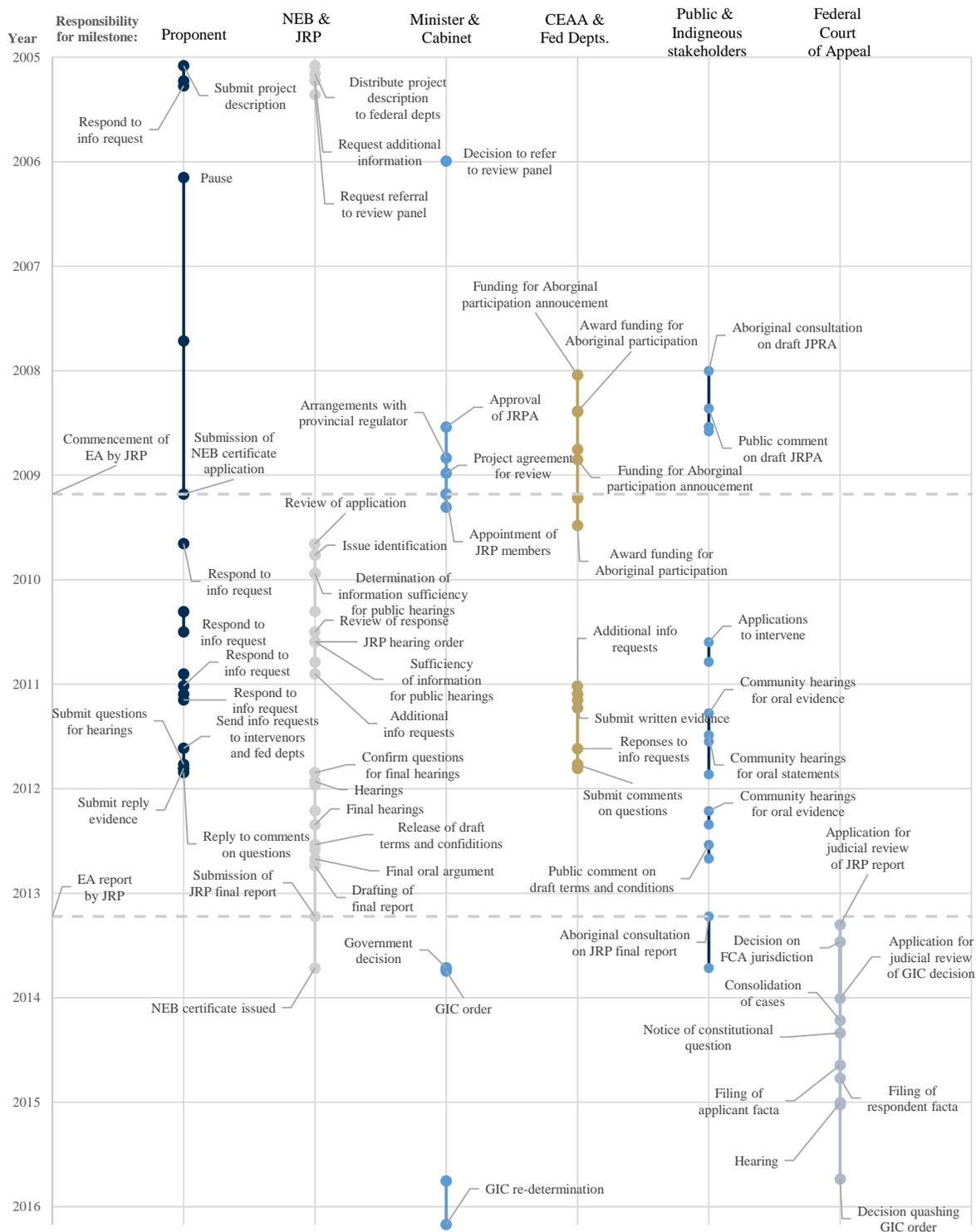
Sources: CEAA registry, Major Projects Management Office Project Tracker, authors' calculations.

assessment timelines from Australia and the United States. This analysis reveals that, since 2012, Canadian timelines generally have exceeded those in the other two countries.<sup>26</sup> Canada also has a wider range of the lengths of environmental assessments – with Canada’s longest assessments far exceeding durations for the same project type in

the other countries. Figure 18 shows median and mean durations, as well as the range of durations, across different project types in the three countries, while Figure 19 provides context on the relative number of environmental assessments/impact studies in each country since 2012 (See Box 4 for an explanation of the sources and calculations of

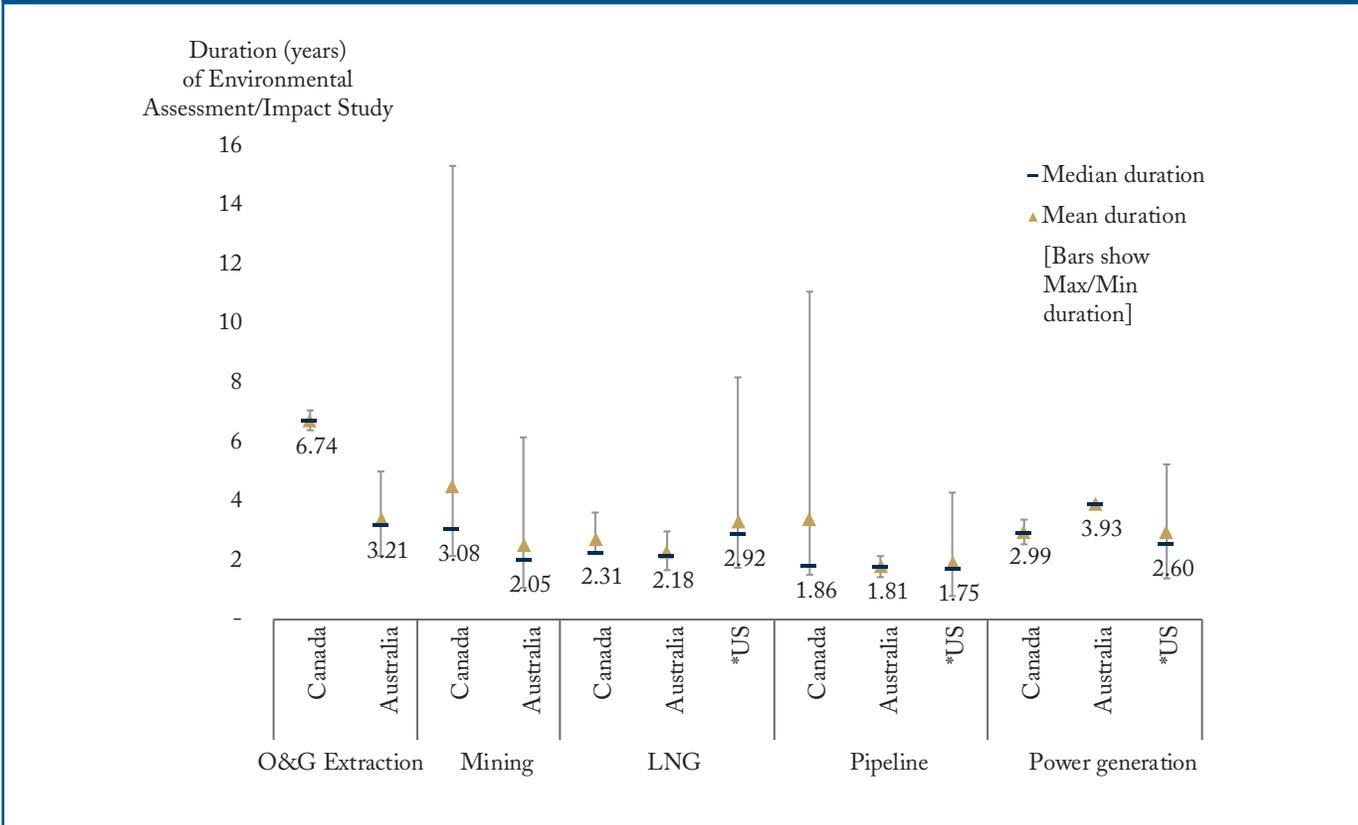
26 This analysis builds on a recent evaluations of timelines for Canadian energy projects by Drance, Cameron, and Hutton (2018); and Orenstein (2018).

**Figure 17: Timeline for NEBA, s.52 and CEEA 2012 Decision-making for Northern Gateway Pipeline Project**



Sources: CEEA registry, Major Projects Management Office Project Tracker, Federal Court of Appeal (Docket for cases A-64-14 and A-437-14).

**Figure 18: Duration of Environmental Assessments/impact Studies across Canada, Australia and US for Selected Project Types since 2012**



\* US data only for reviews by Federal Energy Regulatory Commission (FERC).

Source: Environment Canada CEAA registry, Australia Dept. of Environment and Energy EPBC Referral Notices, US EPA NEPA Environmental Impact Study database, authors' calculations.

durations in Australia and for US FERC-regulated projects).<sup>27</sup>

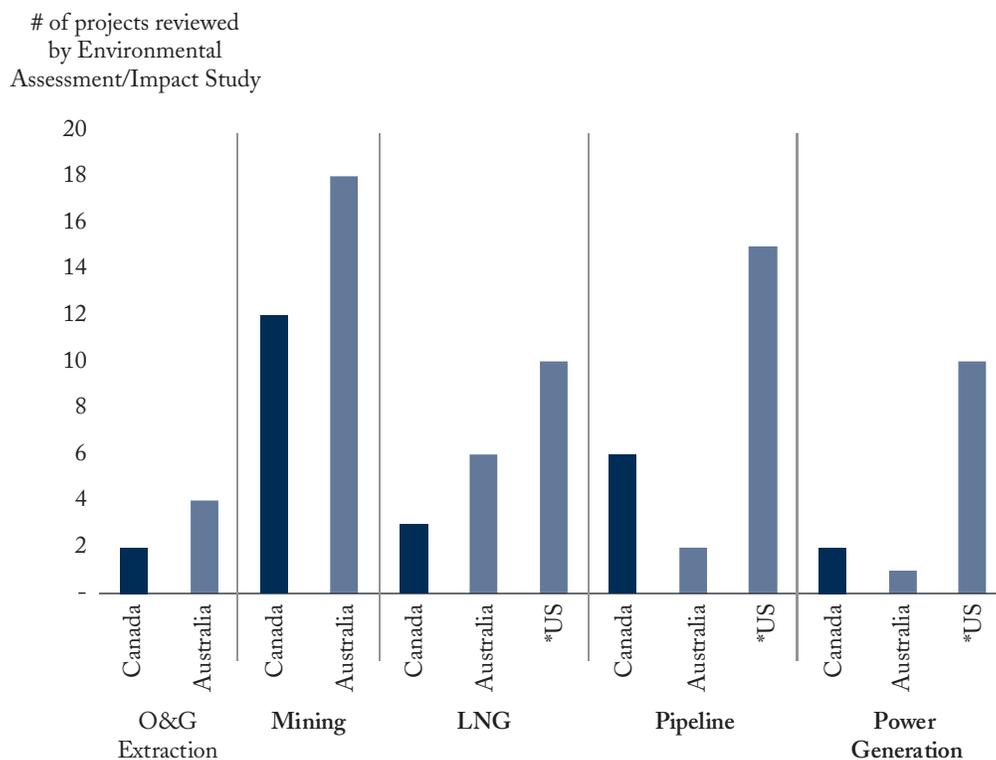
As Figure 18 shows, the median duration of environmental assessments of mining projects under CEAA 2012 was more than three years; in Australia, in contrast, mining projects generally were assessed in two years. Some protracted

environmental assessments of mining projects under CEAA 2012 lasted for as long as 15 years, while the longest for an Australian mining project was less than 6 years.

Assessments of oil and gas extraction projects in Canada also exceeded average timelines in Australia (6.7 years versus 3.2 years). Decisions on Canadian

27 Canada's federal-provincial division-of-powers and framework for environmental assessment differs from the US and Australia in various significant respects. Nonetheless, these jurisdictions represent peer economies with federal structures, long-established environment impact assessment at the federal level, and significant investment in comparable categories of resource-sector projects.

**Figure 19: Number of Environmental Assessments/Impact Studies across Canada, Australia and US for Selected Project Types since 2012**



\* US data only for reviews by Federal Energy Regulatory Commission (FERC).

Source: Environment Canada CEAA registry, Australia Dept. of Environment and Energy EPBC Referral Notices, US EPA NEPA Environmental Impact Study database, authors' calculations.

pipeline projects also exceeded mean timelines for approvals in Australia and the US FERC,<sup>28</sup> and certain pipeline reviews in Canada – for example, those of Northern Gateway and the Trans Mountain Expansion – exceeded the length of any

pipeline approvals in the other two countries since 2012.<sup>29</sup>

In contrast, with respect to decisions on power generation and LNG projects, Canadian timelines for the completion of environmental reviews and

- 28 The timelines for environmental assessments under the US NEPA here include only those regulated by the FERC. As a trans-boundary pipeline, the Keystone XL Project was instead subject to the constitutional authority of the US President for foreign relations. The President delegated his responsibility for the EIS on the application by the proponent (TransCanada) for a Presidential Permit to the US Department of State. The proponent's application was filed in September 2008. The State Department issued the Final EIS in July 2014. President Obama determined that the project was not in the national interest in November 2015. The proponent re-submitted an application in January 2017 and President Trump issued a Presidential Permit in March 2017. See: <https://www.keystonepipeline-xl.state.gov/>.
- 29 Notably, Canada's median duration for environmental assessments of pipelines appear comparable to the Australian and US FERC timelines. The divergence of the mean duration from these peers results from the protracted duration of timelines for particular pipeline reviews – specifically Northern Gateway and the Trans Mountain Expansion.

### Box 4: The Duration of Environmental Reviews in Australia and by US Federal Energy Regulatory Commission

In Australia, activities that may have a significant impact on the environment are subject to approval under the *Environment Protection and Biodiversity Conservation Act 1999*. Dates for notices of referrals and final decisions are available on a database maintained by Australia's Department of the Environment and Energy.\* The duration of environmental assessments represents the time from the notification of referral for an environmental impact statement to notification of the final environmental impact statement.

In the United States, the Environmental Protection Agency (EPA) maintains a database of every Environmental Impact Statement (EIS) under the *National Environmental Policy Act (NEPA)*.\*\* This database includes EISs prepared by the Federal Energy Regulatory Commission (FERC) for its approvals of pipeline and hydroelectric projects. NEPA requires an environmental impact statement for any major federal action determined to significantly affect the quality of the human environment. Unless an activity is excluded from the scope of NEPA, a federal agency with authority to approve the project must prepare an environmental assessment to determine whether the environmental impact will be significant. If the agency so determines, it must prepare an EIS. The duration of an EIS is calculated as the period between the FERC notice of intent for an EIS and the publication of the final EIS.

\* Australia, Department of Environment and Energy, "EPBC Act – Public Notices," available online at <http://epbcnotices.environment.gov.au/publicnoticesreferrals/>, accessed January 2019.

\*\* United States Environmental Protection Agency, "Environmental Impact Statement (EIS) Database," available online at <https://cdxnodengn.epa.gov/cdx-enepa-public/action/eis/search>, accessed January 2019.

approvals are shorter than those in the United States, where some reviews have taken much longer than for any such projects in Canada.

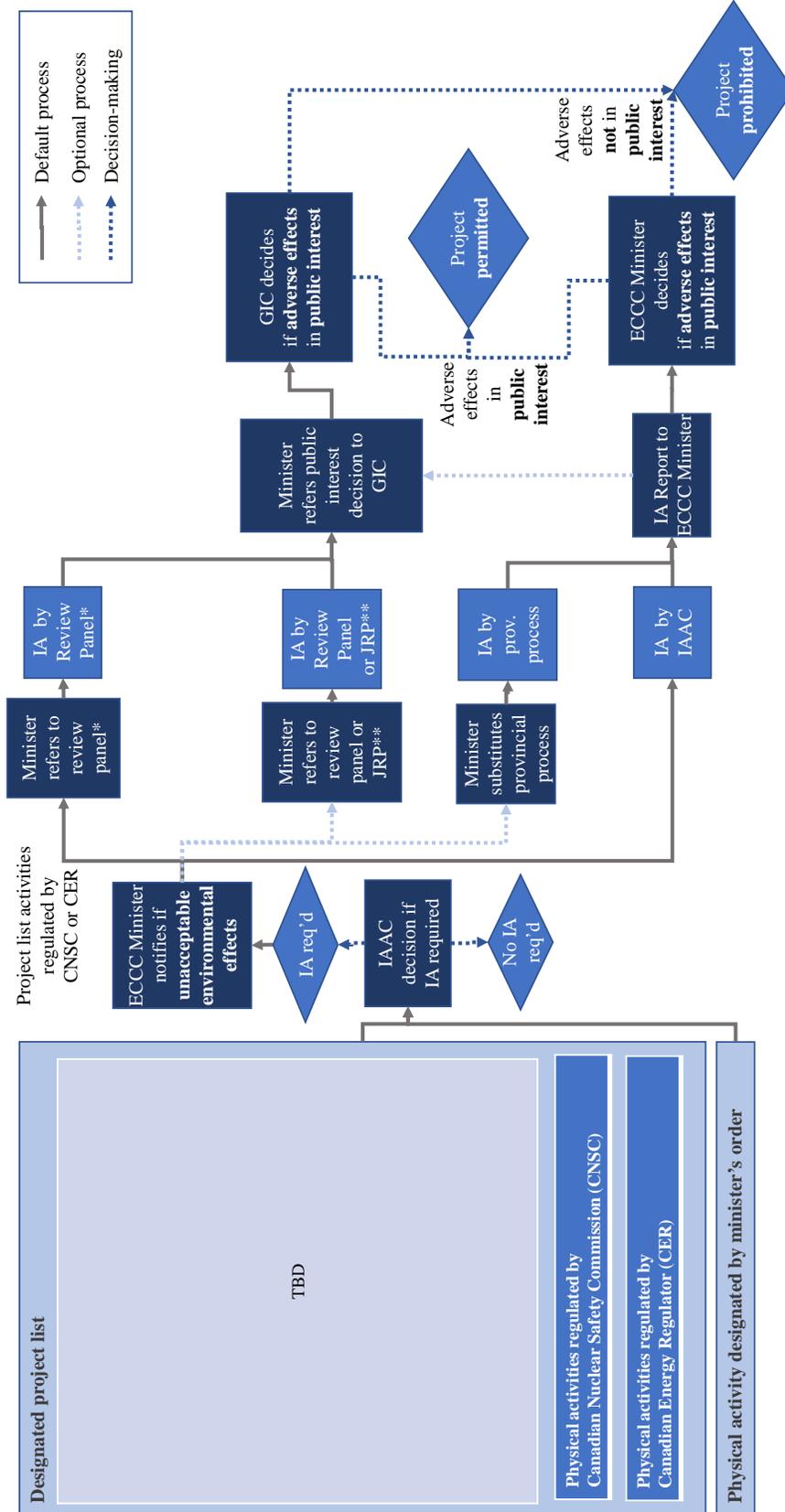
### THE RISKS OF BILL C-69 FOR INVESTMENT IN CANADA'S RESOURCES SECTOR

The revamping of the federal environmental impact assessment process proposed in Bill C-69 risks increasing uncertainty about the pathway for project approval. The proposed legislation would widen the set of projects that face subjective determinations by political decision-makers and mandates that assessments include public policy questions beyond particular projects.

These changes could deter proponents from submitting applications for socially beneficial projects by increasing the political risk of rejection for a proponent and the regulatory costs and timelines for approval. As explained above, increasing regulatory approval costs, duration and uncertainty would increase the necessary return on invested capital that a proponent would have to achieve for a breakeven project.

Proponents would face greater political risk because a "public interest" determination by the ECCC Minister or cabinet would apply to potentially any project – that is, every project with "adverse effects." Figure 20 exhibits the framework for impact assessment and decision-making under the proposed IAA in Bill C-69. Under the IAA,

Figure 20: Canada's Federal Framework for Impact Assessment and Decision-making Proposed for IAA under Bill C-69



\* Minister must refer IA to Review Panel if project includes activities that are regulated by the CNSC (e.g., nuclear facilities) or CER (e.g., pipelines), At least one panel member must be appointed from roster of CNSC or CER (as applicable).  
 \*\* Minister may not establish a JRP for activities that are regulated by the CNSC (i.e., nuclear facilities) or CER (i.e., pipelines).

the ECCC Minister (or the federal cabinet on the minister's referral) would be the decision-maker for any project with "adverse effects" and approval would require a determination that the project's adverse effects are in the "public interest."

The assignment of decision-making under the proposed IAA contrasts with the staged analysis – and the constraints on political decision-making – under the CEAA 2012 framework (see Figure 11). Under CEAA 2012, the first stage of decision-making incorporates the recommendation of whether a project is likely to cause significant adverse environmental effects (SAEEs) after a non-partisan, independent and evidence-based assessment process. Only if the ECCC Minister – and the NEB or the Canadian Nuclear Safety Commission for projects under their respective authority – determines that SAEEs are likely is the cabinet required to determine whether the SAEEs are justified.

If a project has likely SAEEs, political decision-making properly plays an important role in weighing the allocation of adverse effects and benefits among different stakeholders. Where required, such decisions around distributional considerations (in economic terms, weightings in overall social welfare) are properly assigned to political decision-makers.

The IAA under Bill C-69, however, features a lower threshold for when the ECCC Minister or the cabinet would decide on a project's approval. Under CEAA 2012, political decision-making effectively only applies when a project likely will cause *significant* adverse environmental effects.

Under the proposed legislation, any project with adverse effects would require a political determination that those effects are in the public interest.<sup>30</sup> As the Canadian Bar Association (2018, 3) has noted, definitions of effects under IAA are very broad, and have the potential to recognize any possible concern that might be raised about a designated project. This subjective discretion and political decision-making for an increased range of projects – that is, projects with adverse effects but not *significant* adverse *environmental* effects – could deter potential proponents, who would take this increased political risk into account when estimating a project's economics.

### Uncertainty in Mandatory Considerations for Impact Assessments

Additionally, the IAA would introduce various new and uncertain factors for mandatory consideration in any impact assessment. Table 4 compares the mandatory factors for an environmental assessment under CEAA 2012 and those in the proposed IAA. Table 5 compares the factors that the NEB must consider in determining its recommendation for a proposed pipeline versus those to be considered by the proposed CER.

Notably, the consideration of Indigenous knowledge already exists in the CEAA 2012 framework and, as discussed above, the federal government has a constitutional duty to consult affected Indigenous peoples. In other words, the insertion of IAA, 22(1)(c) would not add to the government's current obligations under the duty to

30 Importantly, while CEAA 2012 "justification" decisions do not require the publication of "reasons", the IAA adds a requirement for reasons behind any "public interest" decision. The publication of reasons should provide insight into how governments weigh different considerations in making this determination. Nonetheless, the decision by the minister or cabinet will be subjective and politically-based. By lowering the threshold for from "significant" to any adverse effects, this discretionary decision-making would likely apply to all projects – increasing the potential for political risk for every project.

**Table 4: Comparison of Mandatory Factors for Consideration in Environmental/Impact Assessment under CEEA 2012 and Proposed IAA**

“Mandatory Factors for Environmental Assessment under CEEA 2012”	“Mandatory Factors for Impact Assessment under IAA Proposed in Bill C-69”
19 (1) The environmental assessment of a designated project must take into account the following factors:	22 (1) The impact assessment of a designated project must take into account the following factors:
(a) the environmental effects of the designated project, including the environmental effects of malfunctions or accidents that may occur in connection with the designated project and any cumulative environmental effects that are likely to result from the designated project in combination with other physical activities that have been or will be carried out;	(a) the effects of the designated project, including (i) the effects of malfunctions or accidents that may occur in connection with the designated project, (ii) any cumulative effects that are likely to result from the designated project in combination with other physical activities that have been or will be carried out, and
	(iii) the result of any interaction between those effects;
(b) the significance of the effects referred to in paragraph (a);	
(d) mitigation measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the designated project;	(b) mitigation measures that are technically and economically feasible and that would mitigate any adverse effects of the designated project;
	(c) the impact that the designated project may have on any Indigenous group and any adverse impact that the designated project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the Constitution Act, 1982;
(e) the requirements of the follow-up program in respect of the designated project;	(k) the requirements of the follow-up program in respect of the designated project;
(f) the purpose of the designated project;	(d) the purpose of and need for the designated project;
(g) alternative means of carrying out the designated project that are technically and economically feasible and the environmental effects of any such alternative means;	(e) alternative means of carrying out the designated project that are technically and economically feasible, including through the use of best available technologies, and the effects of those means;
	(f) any alternatives to the designated project;
	...
	(h) the extent to which the designated project contributes to sustainability;
	(i) the extent to which the effects of the designated project hinder or contribute to the Government of Canada’s ability to meet its environmental obligations and its commitments in respect of climate change;
(h) any change to the designated project that may be caused by the environment;	(j) any change to the designated project that may be caused by the environment;
	(l) considerations related to Indigenous cultures raised with respect to the designated project;

Table 4: Continued	
	(m) community knowledge provided with respect to the designated project;
(c) comments from the public – or, with respect to a designated project that requires that a certificate be issued in accordance with an order made under section 54 of the National Energy Board Act, any interested party – that are received in accordance with this Act;	(n) comments received from the public;
	(o) comments from a jurisdiction that are received in the course of consultations conducted under section 21;
(i) the results of any relevant study conducted by a committee established under section 73 or 74 [Regional Studies]; and	(p) any relevant assessment referred to in section 92, 93 [Regional Studies]
	or 95 [Strategic Assessments];
	(q) any assessment of the effects of the designated project that is conducted by or on behalf of an Indigenous governing body and that is provided with respect to the designated project;
	(r) any study or plan that is conducted or prepared by a jurisdiction, that is in respect of a region related to the designated project and that has been provided with respect to the project;
	(s) the intersection of sex and gender with other identity factors; and
(j) any other matter relevant to the environmental assessment that the responsible authority, or – if the environmental assessment is referred to a review panel – the Minister, requires to be taken into account.	(t) any other matter relevant to the impact assessment that the Agency or – if the impact assessment is referred to a review panel – the Minister requires to be taken into account.
...	
(3) The environmental assessment of a designated project may take into account community knowledge and Aboriginal traditional knowledge.	(g) traditional knowledge of the Indigenous peoples of Canada provided with respect to the designated project;

consult for approving a project.<sup>31</sup>

The proposed IAA, however, would widen the set of considerations from the established definitions for environmental effects under CEAA 2012.

Moreover, the substance and scope of these factors is poorly defined in the legislation. These changes risk increasing uncertainty for project proponents about the specific effects and the extent of any effects that must be studied. The “contribution

31 Wright (2018, 219-20) also observes that, for pipeline projects, the IAA lacks the powers granted to the NEB under the *National Energy Board Act* that have been affirmed by courts as the basis for fulfilling the duty to consult – for example, in *Chippewas of the Thames First Nation v. Enbridge Pipelines Inc.*, 2017 SCC 41 at para. 32. Wright notes that the IAA risks generating litigation and regulatory uncertainty around the duty to consult because of the ambiguity in IAA concerning the powers of review panels and of the Impact Assessment Agency. This lack of clear powers during the assessment process could increase the extent of consultation required at the final phase before the “public interest” determination by the ECCC Minister or cabinet.

**Table 5: Comparison of Mandatory Factors for Consideration in Recommendation to Federal Cabinet under NEBA and Proposed CERA**

“Considerations for Recommendations under <i>National Energy Board Act</i> , s.52”	“Considerations for Recommendations under Proposed <i>Canadian Energy Regulator Act</i> , s.183”
(2) In making its recommendation, the Board shall have regard to all considerations that appear to it to be directly related to the pipeline and to be relevant, and may have regard to the following:	(2) The Commission must make its recommendation taking into account – in light of, among other things, any traditional knowledge of the Indigenous peoples of Canada that has been provided to the Commission and scientific information and data – all considerations that appear to it to be relevant and directly related to the pipeline, including
	...
(a) the availability of oil, gas or any other commodity to the pipeline;	(f) the availability of oil, gas or any other commodity to the pipeline;
(b) the existence of markets, actual or potential;	(g) the existence of actual or potential markets;
(c) the economic feasibility of the pipeline;	(h) the economic feasibility of the pipeline;
(d) the financial responsibility and financial structure of the applicant, the methods of financing the pipeline and the extent to which Canadians will have an opportunity to participate in the financing, engineering and construction of the pipeline; and	(i) the financial resources, financial responsibility and financial structure of the applicant, the methods of financing the pipeline and the extent to which Canadians will have an opportunity to participate in the financing, engineering and construction of the pipeline;
	(j) environmental agreements entered into by the Government of Canada; (k) any relevant assessment referred to in section 92, 93 [Regional Assessment] or 95 [Strategic Assessments] of the <i>Impact Assessment Act</i> ; and
(e) any public interest that in the Board’s opinion may be affected by the issuance of the certificate or the dismissal of the application.	(l) any public interest that the Commission considers may be affected by the issuance of the certificate or the dismissal of the application.
(3) If the application relates to a designated project within the meaning of section 2 of the <i>Canadian Environmental Assessment Act</i> , 2012, the report must also set out the Board’s environmental assessment prepared under that Act in respect of that project.	(a) the environmental effects, including any cumulative environmental effects;
	(b) the safety and security of persons and the protection of property and the environment;
	(c) the health, social and economic effects, including with respect to the intersection of sex and gender with other identity factors;
	(d) the interests and concerns of the Indigenous peoples of Canada, including with respect to their current use of lands and resources for traditional purposes;
	(e) the effects on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the <i>Constitution Act</i> , 1982;

to sustainability” factor in particular presents the prospect of a high amount of uncertainty concerning scope and expected standards.<sup>32</sup>

The IAA would also require that assessments consider a project’s contribution to Canada’s “environmental obligations and its commitments in respect of climate change.” This mandatory consideration imports a wide-ranging and complex policy debate, potentially implicating an unbounded range of economic decisions and government policies to reduce greenhouse gas emissions, upstream and downstream.<sup>33</sup> The current government has indicated that its Strategic Assessment of Climate Change will provide the limits for this factor (Canada 2018b, 3). However, as the Canadian Bar Association (2018, 8–9) has emphasized, the lack of legislative clarity on this factor would create great uncertainty for project proponents.

### **Lack of Standard for Controlling Participation in Review Panel Hearings**

The proposed IAA adds additional risk for prolonged timelines by removing a coherent standard for determining participation rights in hearings by review panels concerning projects.

Under CEAA 2012, an environmental assessment by a review panel is required to summarize comments received from the public; however, participation in hearings by review panels is limited to “interested parties” (CEAA 2012, s.43(c)-(d)). This allows the review panel to base participation on a finding that a party is “directly affected” by the project or has “relevant information or expertise.”

This “interested party” standard links standing in the proceeding to assessing environmental effects from a particular project. The standard limits participation to those stakeholders who might be impacted by effects from a project or who bring specialized knowledge that can help the panel understand the potential impacts of the effects. Based on the “directly affected” test, the Federal Court of Appeal has upheld the reasonableness of the NEB’s refusal of participation rights to applicants who sought to make submissions irrelevant issues to the scope for a review of a pipeline application.<sup>34</sup> In its submission to the review of environmental assessment processes, the Canadian Bar Association (2016, 8) endorsed the “interested party” test in CEAA 2012 as an appropriate standard for determining who may participate in an assessment process.<sup>35</sup>

32 “Sustainability” is defined in the proposed IAA as “the ability to protect the environment, contribute to the social and economic well-being of the people of Canada and preserve their health in a manner that benefits present and future generations.” While unquestionably laudable as an aim, this factor could trigger an irreconcilably wide set of interpretations about its meaningful application. The IAA does not indicate how those involved in assessing impacts of a project should practically evaluate this factor.

33 For arguments for carbon pricing as the appropriate policy tool to reduce upstream greenhouse gas emissions and against including such issues in approval decisions concerning pipelines, see: Bishop and Dachis (2016); and Doucet (2012).

34 See: *Forest Ethics Advocacy Association v. Canada (National Energy Board)*, 2014 FCA 245 at paras. 69, 72, 83. This case concerned the NEB’s denial of an application for participation in the NEB’s review of the Line 9B Reversal. The applicant had sought to make submissions concerning environmental and socio-economic effects associated with upstream activities, the development of the Alberta oil sands, and the downstream use of oil transported by the pipeline. The individual also asserted that the application form was “too complicated, takes too much time and frightens interested people from participating in the proceedings.” The court determined that the NEB’s denial of participation was reasonable given the focus of NEB’s proceedings on those “directly affected” by the pipeline.

35 The Canadian Bar Association (2016, 8) recommended two modifications: (1) to allow for participation of “a member of the public can convey information about local matters, local use or values”; and (2) to include “a person [who] can provide relevant expertise or information that will be provided by other persons as part of a hearing (as opposed to the mechanism tailored for public participation)” in the definition of an “interested party”.

In contrast, the proposed IAA directs that hearings by review panels provide for meaningful public participation (albeit requiring that this must be “within the time period specified by the review panel”) but does not provide any criteria for the review panel to triage these submissions for relevance.

Negative perceptions of the standing test in NEB environmental assessments were the subject of considerable comment by the Expert Panel for the Review of Environmental Assessment Processes (2017, 38), which believed that “limiting public participation reduces the trust and confidence in assessment processes without bringing any obvious process efficiency.” Notably, data cited by the Expert Panel on participation rights in recent reviews indicated that intervenor standing was granted to several hundred interested parties from the overall volume of thousands of applications to participate.<sup>36</sup>

Without a test to limit standing and based on the volume of applications in recent project reviews, review panels under IAA will need to satisfy the IAA’s current legislative requirement to provide meaningful opportunity to make submissions at hearings from thousands of parties. Instead of assessments of impacts from a specific project based on evidence from affected stakeholders and individuals with relevant expertise, the proposed IAA risks review panel hearings morphing into forums for wide-ranging debates on broader public policy issues between parties with political aims.

### High Risk of More Costly and Protracted Timelines

The addition of factors in the proposed IAA – particularly those new factors that import wide-ranging policy debates – poses a substantial risk for increasing the duration and cost of environmental assessments.

Although the IAA features mandatory timelines for assessments and decision-making,<sup>37</sup> CEAA 2012 also includes such timelines – see CEAA 2012, s.27(2)-(6), s.38(3), s.43(2). Notably, the proposed timelines do not include periods when a proponent is responding to an information request or undertaking studies that a responsible authority or review panel has requested – in other words, the timeframe for the assessment would be “paused” until the proponent responded. As exhibited by the substantial “clock stop” time during recent environmental assessments (see Figure 16), much of the duration of environmental assessments consists of periods when proponents are responding to these information requests.

The proposed IAA also features provisions for discretionary extensions of timeframes by the ECCC Minister or the federal cabinet (see IAA, s.28(6)-(7) and s.37(3)-(4)). A discussion paper concerning time management indicates the intention to use this discretion for “stopping the clock” during outstanding information requests (Canada 2018c). Although “clock stop” time to respond to information requests is in the

36 In support of the EA Expert Panel’s conclusion that the CEAA 2012 standing test did not increase the efficiency of the process, the panel cited the receipt of 2,118 applications to participate in the Trans Mountain Expansion project review, from which 400 parties were granted intervenor status (with standing rights to file written evidence and arguments, as well as cross-examine evidence) and 798 were granted commenter status. Additionally, of 2,652 applications to participate in the Energy East project review, 337 were granted intervenor status and 271 were granted commenter status.

37 Under the proposed IAA, the mandatory timelines, which exclude “clock stop” time during information requests, would be reduced from the statutory mandated timelines under CEAA 2012: Timelines for assessments by the Impact Assessment Agency would be reduced to 300 days from 365 days for assessments by the Canadian Environmental Assessment Agency under CEAA 2012; and the timelines for review panel-led assessments would be reduced to 300 days, extendable to a maximum of 600 days by directives from the ECCC Minister and cabinet, from 720 days under CEAA 2012.

hands of the proponent, the proponent has an economic incentive to avoid these costly pauses by anticipating the information required and completing any required studies efficiently.

As commentators have observed, this discretion – and the same “clock stop” approach – would mean that the legislated timelines under the IAA likely would be more aspirational than realistic (Drance, Cameron, and Hutton 2018, 31). In particular, the IAA would also expand the mandatory considerations for assessments and add factors without clearly-defined substance and scope. This is likely to increase the amount of information that proponents would be required to provide and create uncertainty for proponents to anticipate and prepare information for regulatory proceedings.

Figure 16 shows the impact of “clock stop” periods on the length of CEAA 2012 assessments. Given the addition of imprecise factors, the proposed IAA can be expected to exacerbate the response burden for proponents. Longer approval timelines and increased uncertainty about approval would reduce the incentive to undertake new projects.

## CONCLUSION

The outsized decline in planned investment in Canadian energy and mining projects indicates diminished confidence in Canada on the part of potential investors. Statements by corporate executives directly involved in advancing Canadian projects underscore the high degree of perceived uncertainty about Canada’s regulatory environment.<sup>38</sup> By increasing the role for political decision-making and crowding fuzzy policy questions into project-specific assessments, the federal government’s proposed Bill C-69 risks amplifying current uncertainty and further

undermining investor confidence in Canada.

Average timelines in Canada for environmental decision-making for mining projects are significantly longer than those in Australia, and reviews of Canadian pipeline projects on average take longer than those for US FERC-regulated projects. As well, although determinations under the *Canadian Environmental Assessment Act, 2012* have been generally robust to judicial scrutiny, the federal cabinet has failed on several high-profile occasions to fulfill its constitutional duty to consult affected Indigenous peoples *outside* the environmental assessment process.

The proposed *Impact Assessment Act* under Bill C-69 does not address the cause of the Federal Court of Appeal’s finding that the federal government failed to adequately consult Indigenous peoples when approving the Northern Gateway pipeline or Trans Mountain Expansion. As the submission concerning Bill C-69 by the Canadian Bar Association (2018, 21–2) noted: “Overall there is little guidance in the Act on consultation and the assessment process. Those who believe that the Act sets out a process for consultation and accommodation in the context of impact assessments will be mistaken. We also suggest that the Act falls short of its goal to clarify the duty to consult and accommodate in the assessment process.”

As well, Bill C-69 would increase uncertainty about project approvals by lowering the threshold for political decision-making. The current CEAA 2012 involves political decision-makers after an independent process to determine whether a project is likely to cause *significant* adverse environmental effects; if an environmental assessment does not find such a likelihood, a political decision-maker would require a reasonable basis to deny a project approval. CEAA 2012 effectively limits political

---

38 See, for example, statements quoted in Bradshaw (2018); Fong (2018); Morgan (2018); Snyder (2018); and Heffernan (2019).

---

involvement only to determining whether a project with significant adverse environmental effects is “justified in the circumstances”.

In contrast, Bill C-69 would vest decision-making around the “public interest” in the Minister of Environment and Climate Change or the federal cabinet if a project is likely to cause “adverse effects.” The inclusion of a wider set of poorly-defined, policy-driven considerations as a possible basis for this subjective and discretionary decision would only increase the political risk perceived by

prospective proponents. Moreover, Bill C-69 risks further protracting project reviews with information requests as proponents struggle to understand and anticipate the meaning and scope of mandatory considerations for impact assessments.<sup>39</sup>

If the federal government wishes to reverse the decline in major investments in energy and mining, the current Bill C-69 is unlikely to be a remedy. By increasing political risk and timelines for project reviews, Ottawa’s proposed cure looks likely to worsen Canada’s present disease.

---

39 Useful recommendations to address key deficiencies in Bill C-69 are detailed in Hall Findlay and Orenstein (2019).

## REFERENCES

- Bishop, Grant, and Ben Dachis. 2016. "The National Energy Board's Limits in Assessing Upstream Greenhouse Gas Emissions." E-Brief. Toronto: C.D. Howe Institute, February 18. Available online at <https://www.cdhowe.org/public-policy-research/national-energy-board%E2%80%99s-limits-assessing-upstream-greenhouse-gas-emissions>.
- Bradshaw, James. 2018. "CIBC CEO warns of chill in investment climate." *Globe and Mail*, September 11. Available online at <https://www.theglobeandmail.com/business/article-cibc-ceo-warns-about-rising-global-debt-levels-urges-canada-to/>.
- Canada. 2011. Aboriginal Affairs and Northern Development Canada. "Guidelines for Federal Officials to Fulfill the Duty to Consult." March. Available online: <https://www.aadnc-aandc.gc.ca/eng/1100100014664/1100100014675>.
- . 2014. Office of the Auditor General. "2014 Fall Report of the Commissioner of the Environment and Sustainable Development: Chapter 4 – Implementation of the Canadian Environmental Assessment Act, 2012." Ottawa. October 7. Available online at [http://www.oag-bvg.gc.ca/internet/English/parl\\_cesd\\_201410\\_04\\_e\\_39851.html](http://www.oag-bvg.gc.ca/internet/English/parl_cesd_201410_04_e_39851.html).
- . 2018a. Environment and Climate Change Canada. "Consultation Paper on Information Requirements and Time Management Regulations: A Proposed Impact Assessment System." Ottawa. Updated April 19. Available online at <https://www.canada.ca/en/services/environment/conservation/assessments/environmental-reviews/environmental-assessment-processes/consultation-paper.html>.
- . 2018b. Environment and Climate Change Canada. 2018. "Discussion Paper: Developing a Strategic Assessment of Climate Change." Ottawa. July. Available online at <https://www.strategicasessmentclimatechange.ca/discussion-paper>.
- . 2018c. Natural Resources Canada. "Natural Resources: Major Projects Planned or Under Construction – 2018 to 2028." Ottawa. August. Available online at <https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/emmc/pdf/2018/en/major-projects-planned-or-Under-Construction-2018-2028-eng.pdf>.
- Canadian Bar Association. 2016. *Environmental Assessment Process Review*. December. Available online at [https://www.cba.org/Our-Work/Submissions-\(1\)/Submissions/2016/December/Environmental-Assessment-Process-Review](https://www.cba.org/Our-Work/Submissions-(1)/Submissions/2016/December/Environmental-Assessment-Process-Review).
- . 2018. *Submission on Bill C-69 – Impact Assessment Act*. Ottawa: Canadian Bar Association, Environment, Energy and Resources Law Section. May 23. Available online at <https://www.cba.org/Our-Work/cbainfluence/Submissions/2018/May/Bill-C-69>.
- Canadian Energy Research Institute. 2018. *Canadian Oil Sands Supply Costs and Development Projects (2018-2038)*. Study No. 170. Calgary: May. Available online at <https://ceri.ca/studies/canadian-oil-sands-supply-costs-and-development-projects-2018-2038>.
- Canadian Press. 2017. "TransCanada blames 'ubstantial uncertainty' for killing Energy East pipeline." *Financial Post*. October 5. Available online at <https://business.financialpost.com/pmn/business-pmn/newsalerrtranscanada-says-its-cancelling-energy-east-pipeline-project-2>.
- Church, Jeffrey. 2017. *Defining the Public Interest in Regulatory Decisions: The Case for Economic Efficiency*. Commentary 478. Toronto: C.D. Howe Institute, May. Available online at <https://www.cdhowe.org/public-policy-research/defining-public-interest-regulatory-decisions-case-economic-efficiency>.
- Dachis, Ben. 2018. *Death by a Thousand Cuts? Western Canada's Oil and Natural Gas Policy Competitiveness Scorecard*. Commentary 501. Toronto: C.D. Howe Institute, February. Available online at <https://www.cdhowe.org/public-policy-research/death-thousand-cuts-western-canada%E2%80%99s-oil-and-natural-gas-policy-competitiveness-scorecard>.

- Doucet, Joseph. 2012. *Unclogging the Pipes: Pipeline Reviews and Energy Policy*. Commentary 342. Toronto: C.D. Howe Institute, February. Available online at <https://www.cdhowe.org/unclogging-pipes-pipeline-reviews-and-energy-policy>.
- Drance, Jonathan, Glenn Cameron, and Rachel Hutton. 2018. "Federal Energy Project Reviews: Timelines in Practice." *Energy Regulation Quarterly* 6 (3): 23–32. Available online at <http://www.energyregulationquarterly.ca/articles/federal-energy-project-reviews-timelines-in-practice#sthash.UFDJU7wV.dpbs>.
- Expert Panel for the Review of Environmental Assessment Processes. 2017. *Expert Panel Report Building Common Ground: A New Vision for Impact Assessment in Canada*. Available online at: <https://www.canada.ca/en/services/environment/conservation/assessments/environmental-reviews/environmental-assessment-processes/building-common-ground.html>.
- Expert Panel on the Modernization of the National Energy Board. May 2017. *Forward, Together: Enabling Canada's Clean, Safe, and Secure Energy Future*. Available online: <https://www.nrcan.gc.ca/19667>.
- Fong, April. 2018. "Imperial Oil CEO says Canadian energy sector remains in 'cloud of uncertainty.'" *BNN Bloomberg*, August 28. Available online at <https://www.bnnbloomberg.ca/imperial-oil-ceo-says-canadian-energy-sector-remains-in-cloud-of-uncertainty-1.1129931>.
- Govreau, Joe. 2019. "Project Survey 2019: Miners Plan More Projects for 2019." *Engineering & Mining Journal* 220 (1): 18–22. Available online at <https://emj.epubxp.com/i/1070726-jan-2019>.
- Gray, Bryn. 2016. *Building Relationships and Advancing Reconciliation through Meaningful Consultation*. Available online at <https://www.aadnc-aandc.gc.ca/eng/1498765671013/1498765827601>.
- Hall Findlay, Martha, and Marla Orenstein. 2019. *Bill C-69: We can get this right*. Canada West Foundation. Available online at <http://cwf.ca/research/publications/report-bill-c-69-we-can-get-this-right/>.
- Harrison, Rowland. 2013. "The Elusive Goal of Regulatory Independence and the National Energy Board: Is Regulatory Independence Achievable? What Does Regulatory 'Independence' Mean? Should We Pursue It?" *Alberta Law Review* 50 (4): 757–82. Available online at <https://albertalawreview.com/index.php/ALR/article/view/75/75>.
- Heffernan, Virginia. 2019. "Is Canada losing the exploration game? The hurdles to increased exploration spending in Canada." *CIM Magazine*. January 3. Available online at <http://magazine.cim.org/en/projects/is-canada-losing-the-exploration-game-en/>.
- Holburn, Guy, and Margaret Loudermilk. 2017. *Risks and Costs of Regulatory Permit Applications in Canada's Pipeline Sector – Submission to the National Energy Board Modernization Expert Panel*. March. Available online at <https://www.ivey.uwo.ca/cmsmedia/3776986/risks-and-costs-of-regulatory-permit-applications-in-canadas-pipeline-sector-march-2017.pdf>.
- International Energy Agency. 2018. *World Energy Investment 2018*. Paris: IEA. July. Available online at <https://www.iea.org/wei2018/>.
- Langen Dennis P., Leland P. Corbett, Vincent M. Light, and Gordon Masson. 2018. "A Steady Judicial Tune Resonates Uncertainty: Federal Court of Appeal Orders Canada to Re-Consult on Trans Mountain Pipeline Expansion Project Approvals." *Stikeman Elliot*. Available online at <https://www.stikeman.com/en-ca/kh/canadian-energy-law/A-Steady-Judicial-Tune-Resonates-Uncertainty>.
- Newman, Dwight. 2018. *Pipelines and the Constitution: Canadian Dreams and Canadian Nightmares*. Macdonald-Laurier Institute. April. Available online at [https://macdonaldlaurier.ca/files/pdf/MLICommentary\\_April2018\\_Newman\\_FWeb.pdf](https://macdonaldlaurier.ca/files/pdf/MLICommentary_April2018_Newman_FWeb.pdf).
- Milman, Oliver, and Nick Evershed. 2015. "Australia has denied environmental approval to just 18 projects since 2000." *The Guardian*. August. Available online at <https://www.theguardian.com/environment/2015/aug/12/australia-has-denied-environmental-approval-to-just-11-projects-since-2000>.

- Mintz, Jack. August 2016. "Big government and job-killing regulations are stalling our economy." *Financial Post*, August 17. Available online at <https://business.financialpost.com/opinion/jack-mintz-big-government-and-job-killing-regulations-are-stalling-our-economy>.
- Moore, Michal C., David Hackett, Leigh Noda, Jennifer Winter, Roman Karski, and Mark Pilcher. 2014. *Risky Business: The Issue of Timing, Entry and Performance in the Asia-Pacific LNG Market*. University of Calgary School of Public Policy: Research Papers 7(18). July. Available online at <https://www.policyschool.ca/publications/risky-business-issue-timing-entry-and-performance-asia-pacific-lng-market/>.
- Morgan, Geoffrey. 2018. "Suncor to shun major new projects amid Canada's 'difficult' regulatory environment." *Financial Post*, February 8. Available online at <https://business.financialpost.com/commodities/energy/suncor-not-embarking-on-major-new-projects-unless-canada-up-its-game>.
- Olszynski, Martin. 2013. "Shell Jackpine Mine Expansion Project: The Mysterious Case of the Missing Justification." *ABLawg.ca*, December 12. Available online at <https://ablawg.ca/2013/12/12/shell-jackpine-mine-expansion-project-the-mysterious-case-of-the-missing-justification/>.
- . 2014. "To Be (Justified) or Not to Be: That Is (Still) the Question." *ABLawg.ca*, March 12. Available online at <https://ablawg.ca/2014/03/12/to-be-justified-or-not-to-be-that-is-still-the-question/>.
- . 2016. "Avoiding the 'Tyranny of Small Decisions': A Canadian Environmental Assessment Regime for the 21st Century." *ABLawg.ca*, November 21. Available online at <https://ablawg.ca/2016/11/21/avoiding-the-tyranny-of-small-decisions-a-canadian-environmental-assessment-regime-for-the-21st-century/>.
- . 2018. "In Search of #BetterRules: An Overview of Federal Environmental Bills C-68 and C-69" *ABLawg.ca*, February 15. Available online at <https://ablawg.ca/2018/02/15/in-search-of-betterrules-an-overview-of-federal-environmental-bills-c-68-and-c-69/>.
- Orenstein, Marla. 2018. *The Fate of Projects: A Review of Outcomes from the Federal EA Approvals Process*. Calgary: Canada West Foundation. November. Available online: <http://cwf.ca/research/publications/what-now-the-fate-of-projects-a-review-of-outcomes-from-the-federal-ea-approvals-process/>.
- Roman, Andrew. September 2018. "Appealing the Trans Mountain Decision" C.D. Howe Institute Intelligence Memo. Available online: <https://www.cdhowe.org/intelligence-memos/andrew-roman-appealing-trans-mountain-decision>.
- Snyder, Jesse. 2017. "Breakeven costs of US\$40 – and falling – means it's too soon to count out the oilsands." *Financial Post*, September 6. Available online at <https://business.financialpost.com/commodities/energy/more-than-just-a-glimmer-of-hope-lower-costs-suggest-its-too-soon-to-count-out-the-oilsands>.
- . 2018. "Not even on the radar screen: Why Big Oil has abandoned Canada's once-promising energy industry." *Financial Post*, June 4. Available online at <https://business.financialpost.com/commodities/not-even-on-the-radar-screen-why-big-oil-has-abandoned-canadas-once-promising-energy-industry>.
- Worley-Parsons. 2016. *International Review of Environmental Assessment Processes*. Calgary: Advisian. December. Available online at <https://www.capp.ca/~media/capp/customer-portal/pdf/internationalassessmentoreas.pdf?la=en&modified=20170302083747>.
- Wright, David. 2018. "Federal Linear Energy Infrastructure Projects and the Rights of Indigenous Peoples: Current Legal Landscape and Emerging Developments." *Review of Constitutional Studies*, 23(1), 175-224.

## RECENT C.D. HOWE INSTITUTE PUBLICATIONS

- February 2019 Naugler, Christopher, and Rosalie Wyonch. “What the Doctor Ordered: Improving the Use and Value of Laboratory Testing.” C.D. Howe Institute Commentary 533.
- février 2019 Wyonch, Rosalie, et Abby Sullivan. “Santé et bonne scolarité : Les programmes d’alimentation saine au Canada” Institut C.D. Howe commentaire N° 532.
- February 2019 Wyonch, Rosalie, and Abby Sullivan. “Health and Grades: Nutrition Programs for Kids in Canada.” C.D. Howe Institute Commentary 532.
- February 2019 Robson, William B.P., and Alexandre Laurin. “Less Debt, More Growth: A Shadow Federal Budget for 2019.” C.D. Howe Institute Commentary 531.
- January 2019 Landon, Stuart, and Constance Smith. “Managing Uncertainty: The Search for a Golden Discount-Rate Rule for Defined-Benefit Pensions” C.D. Howe Institute Commentary 530.
- janvier 2019 Mahboubi, Parisa. “L’équité intergénérationnelle : Nos enfants auront-ils une meilleure vie que nous?” Institut C.D. Howe commentaire N° 529.
- January 2019 Mahboubi, Parisa. “Intergenerational Fairness: Will Our Kids Live Better than We Do?” C.D. Howe Institute Commentary 529.
- January 2019 Goulding A.J., with research support from Jarome Leslie. “Dammed If You Do: How Sunk Costs Are Dragging Canadian Electricity Ratepayers Underwater” C.D. Howe Institute Commentary 528.
- January 2019 Kim, Jacob, and Alexandre Laurin. “Mothers at Work: The Fiscal Implications of the Proposed Ontario Childcare Rebate.” C.D. Howe Institute E-Brief.
- December 2018 Robson, William B.P., and Farah Omran. *Wild Numbers: Getting Better Fiscal Accountability in Canada’s Municipalities*. C.D. Howe Institute Commentary 527.
- December 2018 Found, Adam, and Peter Tomlinson. “Business Tax Burdens in Canada’s Major Cities: The 2018 Report Card.” C.D. Howe Institute E-Brief.
- December 2018 Ambler, Steve, and Jeremy Kronick. *Navigating Turbulence: Canadian Monetary Policy Since 2004*. C.D. Howe Institute Policy Book 47.

## SUPPORT THE INSTITUTE

For more information on supporting the C.D. Howe Institute’s vital policy work, through charitable giving or membership, please go to [www.cdhowe.org](http://www.cdhowe.org) or call 416-865-1904. Learn more about the Institute’s activities and how to make a donation at the same time. You will receive a tax receipt for your gift.

## A REPUTATION FOR INDEPENDENT, NONPARTISAN RESEARCH

The C.D. Howe Institute’s reputation for independent, reasoned and relevant public policy research of the highest quality is its chief asset, and underpins the credibility and effectiveness of its work. Independence and nonpartisanship are core Institute values that inform its approach to research, guide the actions of its professional staff and limit the types of financial contributions that the Institute will accept.

For our full Independence and Nonpartisanship Policy go to [www.cdhowe.org](http://www.cdhowe.org).



**C.D. HOWE**  
INSTITUTE

67 Yonge Street, Suite 300,  
Toronto, Ontario  
M5E 1J8

Canadian Publication Mail Sales  
Product Agreement #40003848